

Table 4-1. Responses to Comments

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238	1	In view of County's priorities we strongly support in principle the Voluntary Agreements (VAs) proposed in this Draft Staff Report. However, some of the major concerns and issues regarding the proposals, particularly regarding the unimpaired flow alternatives proposed in the Staff Report, are described below.	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.
238	2	Background. The County has been engaged with federal and state resource agencies, groundwater sustainable agencies, and agricultural landowners in developing habitat conservation and groundwater sustainability plans, and flood management strategies throughout the County including the Delta and Suisun Marsh. Therefore, the County is vitally interested in the health of the Delta and concerned about the impacts that the proposed regulatory flows will have on the Delta communities, water supplies, and their livelihoods. The Sacramento/Delta supplies agricultural water to irrigated lands in the Delta and municipal water to urban centers such as the cities of Benicia, Suisun City, Vacaville, Fairfield, and Vallejo through the North Bay Aqueduct (NBA) and Putah South Canal (Solano Project). The Solano Project (Lake Berryessa) supplies up to 207,350 acre feet (AF) of raw water annually to both agricultural and municipal users through Putah South Canal, from the Putah Creek (a tributary in the Sacramento/Delta Watershed). Through operations of Lake Berryessa, the Solano County Water Agency provides environmental flows into Putah Creek to support natural habitat. With the uncertainty of climate change, the County is looking forward to continue building resiliency, enhance water supplies, secure/protect water rights, and improve the health of the environment and quality of life for all its citizens. Therefore, protecting the water supplies that are needed to continue supporting economic growth in Solano County is of the utmost importance.	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. 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 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 tributary-specific water supply adjustments would allow for additional adjustments on rainfall-dominated and municipal supply-dominated tributaries, including Putah Creek and the Mokelumne and Calaveras Rivers, that would allow for more frequent reductions in the required flow levels within this range, as well as no new flow requirements during the driest conditions. These refinements to the regulatory pathway for the revised proposed Plan amendments were designed to reduce water supply impacts and allow more water to be stored in reservoirs on initial implementation. These refinements include the possibility of moving up in the range of unimpaired flow under certain conditions and the potential for modifying the water supply adjustments in the future. The flow requirements under the regulatory pathway along with other provisions in the program of implementation would enable Plan implementation to adjust to future changing conditions, including climate change.
238	3	Water Supply:	This comment is consistent with the environmental analyses. Note that model results are presented as worst case scenarios

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		Table 6.4-1, Pg 6-54 shows that in the 55 percent unimpaired flow scenario, the annual average baseline surface water supply (from 1922 to 2015) to the Delta and San Francisco Bay Area regions are reduced by up to 26 percent relative to the baseline, respectively. Since these two regions are partly located in Solano County, the proposed 55 percent unimpaired flows would directly affect Solano County's water supplies through reduced supplies for both agricultural and municipal uses sourced from NBA and Putah Creek through the Putah South Canal. However, reductions in deliveries are not uniform across the various sources. The estimated annual average supply reductions are 4,000 AF and 39,000 AF through the NBA and Putah South Canal, respectively (Section 6.4.6, Pg 6-69). The larger reduction in the Putah South Canal is caused by the required increase in instream flow on Putah Creek to meet the modeled flow requirements. A water supply reduction of 39,000 AF or 20% of the total annual water supply allocation from Lake Berryessa would affect carryover storage, so, it is significant and unacceptable requirement.	that do not utilize flexibility in the Plan for adaptive implementation and local cooperative solutions. Provisions for adaptive implementation of the numeric inflow requirements are provided to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat and inflow-based Delta outflow requirements. The State Water Board also plans to develop appropriate provisions to address human health and safety needs and other possible reasons for short-term and long-term exceptions to curtailments to allow continued diversions for minimum human health and safety water supplies where alternate supplies are not available.
238	4	To mitigate the effects of reduced surface water supply, the Staff Report assumes that groundwater pumping may be utilized to augment reduction in surface water supply. However, the Staff Report failed to provide detailed basin-specific groundwater modeling demonstrating how additional pumping from the groundwater basins would impact the groundwater storage, groundwater levels, and compliance with the Sustainable Groundwater Management Act (SGMA) as well as Governor's Executive Order N-3-23. Hence, we are concerned about the impact that additional groundwater pumping would have on the sustainability of the local groundwater sources in the County and particularly impacts to shallow domestic wells located in vulnerable areas, which currently or previously had declining groundwater levels. If additional groundwater pumping is implemented to substitute for a lack of surface water supply, it would further lower the groundwater levels and potentially trigger unsustainable undesirable results under SGMA. Such declining groundwater level trend may ultimately cause the domestic wells to go dry during periods of drought, thereby increasing the level of vulnerability to drought rather than advancing toward climate resiliency. Moreover, with reduced	The Staff Report recognizes potentially significant impacts on groundwater supplies and potential lowering of the groundwater table from increased pumping as a response to reduced surface water supplies (see Impact GW-b in Section 7.12.2.3, Impact Analysis). However, the Staff Report explains that recognizing that there could be a foreseeable increase in groundwater pumping based on past behavior, and analyzing an increase in groundwater pumping, is not a directive that farmers and ranchers should or would replace Sacramento/Delta reductions with groundwater pumping, especially in light of requirements to achieve sustainability in basins subject to SGMA. Section 7.12.2.4, Mitigation Measures includes a discussion on how implementation of SGMA may help mitigate the effects of the proposed Plan amendments by minimizing groundwater overdraft. Region-specific potential groundwater impacts are adequately analyzed and further in-depth detail is not required or feasible due to the large spatial extent of the potentially affected area, the geologic complexity of the system, and the need to make speculative assumptions that would undermine the reliability of

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		surface water supply, the opportunities to recharge these groundwater basins are also reduced.	the results. Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for a discussion of the impacts and mitigation measures identified for groundwater and the models used to inform the qualitative analyses on groundwater impacts. It also discusses the overlap of the Sacramento/Delta Bay Delta Plan update with the implementation of the Sustainable Groundwater Management Act (SGMA), current state water management strategies and executive orders.
238	5	The costs to construct, operate, and maintain a new well has not been considered in the Staff Report as additional cost for a substitute water supply. This should be included in the economic analysis in Chapter 8.	The Staff Report provides information regarding the costs associated with new or modified facilities, including groundwater wells. The cost to construct, operate, and maintain a new well (municipal, agricultural, and domestic) is included in Section 8.8.3, Groundwater Wells and Groundwater Storage and Recovery, of the 2023 draft Staff Report, and in Section 8.9.3, Groundwater Wells and Groundwater Storage and Recovery, of the final Staff Report. Groundwater pumping costs are also discussed in Section 8.3.1, Groundwater Use.
238	6	Habitat Restoration: The County is supportive of habitat restoration projects in the Delta and the benefits that they may yield especially when implemented in conjunction with enhanced Delta flows in the various alternatives. Such restoration of ecological habitat and other ecosystem management efforts are being proposed by both the Volunteer Agreements (Vas) and the unimpaired flow alternatives. The Vas propose to restore a total of over 5,300 acres of tidal wetland and associate floodplain habitats consisting of about 10 projects in the North Delta Arc and Suisun Marsh regions, within portions of Solano County. The unimpaired flow alternatives also require establishing ecological habitats as complimentary measures to regulated flow increases, but neither the required number of acres of physical habitat restoration nor their locations are specified in the Staff Report. Without specific information on habitat restoration project locations and sizes, it would be difficult to ascertain their environmental impacts as intended for this Staff Report. It is also unclear whether the	The environmental impacts of habitat restoration are analyzed in Section 7.21, Habitat Restoration and Other Ecosystem Projects.

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		amount of habitat restoration would vary with the various unimpaired flow scenarios.	
238	7	Section 7 .1.4.2, Pg 7 .1-10 states that, "The State Water Board has responsibility and authority for addressing flow and other water quality impairments, but ecosystem recovery in the Delta depends on more than adequate flows. It also requires implementation of complementary measures, including habitat restoration, fisheries management, control of waste discharges and invasive species, and other efforts by other agencies and entities in the watershed that are responsible for these actions. " The proposed Plan amendments should include an implementation plan for partnership and collaboration between the agencies to accomplish the habitat restoration goals needed to protect and restore fish and wildlife. These planning efforts are not in the Plan amendments. Without an implementation plan, there is great uncertainty on how the proposed habitat conservation efforts are integrated into the various flow regimes. Therefore, the modeling and impact analysis of the unimpaired flow alternative proposals are inadequate and incomplete. It is our understanding that flow regimes may be managed and targeted to maximize the benefits of the proposed habitat restoration projects (Section 3.3.1, Pg 3-14). Thus, requiring a certain year-round flow regime as proposed in the Plan amendments may not be the best effective flow measure solution if it is not in concert with additional restored habitats in order to maximize intended effects. Even though habitat restoration is considered as a non-flow measure, it should be managed with appropriate flow measures to be most effective and efficient.	The proposed Plan amendments provide flexibilities for two or more tributaries to work together and the ability to move lower in the range based on successful voluntary implementation plans demonstrating that they achieve the narrative objective using a combination of flow and other measures. The regulatory pathway of the revised proposed Plan amendments retains this flexibility although the term "voluntary implementation plan" has been replaced with "local cooperative solution." The regulatory pathway of the revised proposed Plan amendments includes adaptive management and local cooperative solutions provisions that enable tailoring implementation of the flow requirements to individual tributaries, including managing flow requirements and habitat restoration in concert to maximize benefits. The revised proposed Plan amendments also include complimentary habitat restoration actions to be completed by other agencies and entities. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on these provisions. The commenter has not identified which impact analyses they claim are inadequate and the commenter has not provided any evidence or explanation for how impact conclusions would be affected by the implementation plan they suggest should be included. Flexibilities provided in the Plan are intended to reduce supply impacts. How a tributary or diverter plans to utilize the flexibilities is not yet known and therefore cannot be modeled. The benefits of flow and non-flow measures are discussed in Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, and Chapter 4, Other Aquatic Ecosystem Stressors, respectively, of the Staff Report, as well as in Common Response 3.1, Fish Protection.
238	8	Additionally, the County is concerned about the loss of agricultural lands to habitat restoration projects proposed under the plan in the Delta and in the County. Converting existing agricultural land uses to habitats changes drainage patterns in and around these lands which may result in increased flood risk	Please see the responses to comments 238-9 and 238-14.

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		and erosion or sedimentation to neighboring lands. Further comments on these impacts are noted in subsequent sections.	
238	9	Agriculture: The preservation of agricultural lands is a priority for the County along with its commitment to land stewardship and health of the environment. The County with its partners have worked with farmers and ranchers for decades to conserve agricultural land, habitat, and open space and promote sustainable agriculture to minimize its impacts on the environment. In Section 7.4.2.5, Pgs 7.4-10 - 14 a list of responses to agricultural water supply shortages is provided such as crop substitution, dryland farming, deficit irrigation, irrigation efficiency improvements, and etc. However, many of these practices have been well established and implemented in the agricultural industry to the point where there may be little room for improvement or expansion. Some practices may have potential to further develop such as crop substitution and dry land farming, but may not be practical/feasible depending on local markets and economics while others may be costly and take longer time to implement such as recycled water and groundwater storage and recovery. The Staff Report should focus on responses that can be readily implemented without added burdens or costs to agricultural and local economies. An analysis on costs and degree of difficulty, and scale of the water savings should be included to inform the recommended water saving options.	The 2023 draft Staff Report acknowledges that implementing the flow scenarios will likely lead to impacts on some growers. It also identifies several potential actions growers may take in response to reduced Sacramento/Delta surface water supply. These responses are broad in nature, and while they are common and widespread, they may not be suitable or practical for every specific situation or type of grower. As such, the ability of growers to respond may vary in terms of available options, or with the cost to individual growers or districts of doing so. Larger scale responses, such as recycled water or aquifer storage and recovery, may be implemented with statewide grants or low-cost loans to reduce the burden on individual growers or districts. Representative costs and programs are discussed in Chapter 8, Economic Analysis and Other Considerations.
238	10	In the agriculture impact analysis (Chapter 7) of the various proposed flow regimes, only a dry year and an average year are modeled for comparison. An average year and dry year are defined in Section 7.4.3 Pg 7.4-36 as "The average year surface water supply condition (average year) was developed by calculating the straight average for all water year types. The dry year surface water supply condition (dry year) was calculated using the weighted average for water year types classified as dry and critical.", and "The average year model runs reflect long-term cropping decisions".	Given the inherent uncertainties involved in modeling agricultural impacts, the Staff Report uses a reasonable and conservative approach to evaluating potential agricultural impacts of the flow scenarios. SWAP is the best available, peer reviewed model for estimating the effects associated with changes in water supply on agricultural production in the Central Valley. In addition, the Staff Report notes that the impacts on agriculture and agricultural economic effects in any particular year may be greater or less than the SWAP model results for the "Average Year" and "Dry Year" condition. However, in response to comments received on the SWAP analysis presented in the Staff Report, supplemental SWAP model runs were conducted for

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		These assumptions and estimations may be problematic for California hydrology, which is highly variable, especially with climate change. It appears that the hydrologic input to the average year model is basically averaging the hydrologic conditions of all the year types which may not be appropriate with non-linear SacWAM modeling. To evaluate average long-term climate conditions, the model should analyze for each year type and then average the model results to estimate the long-term effects on cropping decisions.	Critically Dry years. The supplemental SWAP model results for critically dry water years are presented in Common Response 7.4, Agricultural Resources, for changes in crop acreage, and in Common Response 8.1, Economic Analysis and Other Considerations, for the corresponding changes in crop revenue. Overall, these supplemental SWAP results are provided for transparency and to provide additional information requested by commenters, but are consistent with the analyses already presented. The 2023 draft Staff Report already identifies potentially significant impacts on agricultural production and identifies adverse agricultural economic effects, and these additional analyses do not change the conclusions of the environmental and economic analyses presented in the Staff Report.
238	11	Section 7.4.3, Pg 7.4-36 indicates that, "The SWAP model simulates decisions that California growers would make regarding crops, water supplies, and other inputs that would maximize profit, subject to resource constraints, agronomic production relationships, and market conditions." However, it is unclear as to which parameter(s) is the primary driver(s) in the model results. For most growers, profit is a major concern for their farming operations, but, it may not necessarily be the only driver to consider. Other factors should also be considered include; local cultural practices, market trends, risks, diversification, and personal preference (difficult to model). Therefore, extra caution should be taken in interpreting the SWAP model results since grower behavior is complex as noted in the Staff Report, which is a limitation in the model. The change/loss in crop revenue due to water supply reductions in the unimpaired flow scenarios presented in Section 8.4.2 may potentially be underestimated under real field conditions since the model runs are based on maximizing profits only.	As discussed in Section 7.4, Agriculture and Forest Resources, the SWAP model is a regional agricultural and economic optimization model that estimates growers' responses to changes in water supply by determining the cropping pattern that maximizes the net returns to agricultural production. The SWAP model estimates the cropping pattern that maximizes the net returns to agricultural production. It is acknowledged that actual grower responses may vary from the SWAP model results, and the effects of the flow scenarios on crop acreage and crop revenue could vary to some degree from modeled outcomes. While it is acknowledged that other motivations may also factor into farming decisions, it would be highly speculative to apply other criteria into the SWAP analyses. Overall, SWAP is the best available, peer reviewed model to estimate impacts to agriculture and agricultural economic effects in the Central Valley. The information provided by the commenter does not necessitate changes to the analyses of agricultural impacts or agricultural economic effects presented in the Staff Report.
238	12	The SWAP model results and economic analysis in Chapters 7 and 8 are presented primarily for two regional areas (Sacramento/Delta and San Joaquin Valley). The Sacramento/Delta region is consisted of Sacramento River Watershed, Delta Eastside Tributaries, and Delta. While the analysis is helpful on a regional basis, it is not useful in	The analysis provided in the Staff Report is appropriately detailed for the scope of the project. The Staff Report evaluates agricultural impacts that would occur under the flow scenarios, and provides estimates of changes in crop acreage using the best available information. As discussed in Section 7.4, Agriculture and Forest Resources, of the Staff Report, SWAP is a regional

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		understanding economic impacts on a more granular geographic scale such as in the local Delta area, though it is included or aggregated in the overall Sacramento/Delta region. The regional approach in SWAP modeling is good for high level planning purposes, but not appropriate to evaluate local impacts with much varied local agricultural conditions and heterogeneity. For comparison, the surface water supply to agriculture in the Delta is only less than a quarter of the total agricultural surface water supply to the greater Sacramento/Delta region (Table 7.4-3). Without any granular scale information, these flow scenarios lack sufficient detail and therefore may impact local agriculture.	agricultural and economic optimization model that estimates growers' responses to changes in water supply by determining the cropping pattern that maximizes the net returns to agricultural production for 27 production regions, including 10 production regions in the Sacramento/Delta (the Sacramento River valley floor, Delta eastside tributaries, and Delta regions), and 17 production regions in the San Joaquin Valley. The Delta is represented in SWAP as production region V09. Detailed SWAP results for all 27 production regions within the Sacramento/Delta watershed and San Joaquin Valley regions, including production region V09, are provided in Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for additional information on the level and scope of the analysis.
238	13	Since the intensity of habitat restoration development proposed in the Plan amendments is unknown and unspecified, it is not considered in the modeling efforts. Thus, the loss of agricultural lands and their impact on the regional agricultural economy may be underestimated as presented in the Staff Report. Alternatively, various assumptions on the habitat restoration acreage and locations in coordination with other efforts and entities such as the Yolo-Bypass Cache Slough Partnership may provide additional information on proposed habitats to evaluate their impacts.	Given the inherent uncertainties involved in modeling agricultural impacts and agricultural economic effects, the Staff Report uses a reasonable and conservative approach to evaluating the potential agricultural impacts and agricultural economic effects of the flow scenarios. SWAP is currently the best available tool for modeling agricultural economic responses to water supply shortages. It has been peer-reviewed and applied to numerous policy analyses and impact assessments over the last two decades. SWAP is frequently used to estimate changes in California agricultural production due to changes in water resource availability. Please see Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results, for additional information on the SWAP model. In addition, Chapter 8, Economic Analysis and Other Considerations, presents a regional economic analysis that relies on the IMPLAN Input-Output modeling system. IMPLAN is a widely-used, proprietary data and modeling software system. SWAP model results for crop revenues and expenditures under the flow scenarios were the primary inputs to the regional economic modeling. Appendix A4, Regional Economic Analysis Modeling Procedure, provides more information regarding IMPLAN and the approach and procedure used to evaluate regional economic effects as well as detailed results based on model output.

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			The environmental impacts of physical habitat restoration and other complementary ecosystem projects are evaluated in Section 7.21, Habitat Restoration and Other Ecosystem Projects, and the costs associated with habitat restoration and other ecosystem projects are discussed in Section 8.7, Costs Associated with Habitat Restoration and Other Ecosystem Projects, of the 2023 draft Staff Report (Section 8.8, Costs Associated with Habitat Restoration and Other Ecosystem Projects, in the final Staff Report). Many of these complementary actions are within the purview of other agencies and entities and should be appropriately further developed and implemented by these agencies and entities. It would be highly speculative to quantitatively evaluate the environmental impacts and economic effects of habitat restoration. However, it is possible that if habitat restoration activities were known and also modeled, these actions could result in localized spending and employment and could have a positive net effect on the regional economy, thereby partially offsetting agricultural economic effects that could occur under the flow scenarios.
238	14	We are particularly concerned over the insufficient attention related to sustainable agriculture when evaluating impacts on the conversion of agricultural lands to restore ecosystem habitats. It is important to note that appropriately planned conservation and habitat restoration projects in the Delta can be complimentary to agriculture and its sustainability by minimizing conflicts and developing strategies that are mutually beneficial to agriculture and environment. Rather than permanent conversion of agricultural lands, the Staff Report should encourage and promote alternative strategies that emphasizes in wildlife-friendly farming and other sustainable farming approaches with multi-benefits in agricultural production, flood protection, and ecological restoration. This type of multi-benefit approach to habitat restoration is highly recommended for the Delta and elsewhere. The Vas have similar habitat restoration proposals such as incorporating habitat restoration with rice farming and other good examples of habitat restoration strategies with sustainable farming practices may be found in a report prepared for the Delta Protection Commission [Footnote 1: The Delta Protection Commission (2020). "The State	The State Water Board has consistently acknowledged and incorporated flow and non-flow measures to comprehensively address Delta aquatic ecosystem and tributary ecosystem needs in all watersheds. The State Water Board's authority to require non-flow actions is somewhat limited; however, the program of implementation identifies actions that other entities should take to address other ecosystem stressors and provides a framework to incorporate both flow and complementary ecosystem projects such as physical habitat restoration into local cooperative solutions. In addition, some complementary ecosystem projects may also serve as an implementation mechanism for the proposed cold water habitat objective. In addition, the VA pathway includes implementation of non-flow habitat restoration actions targeted at improving spawning and rearing capacity for juvenile salmonids, estuarine species, and other native fish and wildlife on a portion of the Sacramento/Delta tributaries for an initial 8 years (with the possibility to extend the term). The Staff Report promotes physical habitat restoration and other ecosystem projects as evaluated in Section 7.21, Habitat Restoration and Other Ecosystem Projects, but does not

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		of Delta Agriculture: Economic Impact. Conservation and Trends.", West Sacramento, CA (https://delta.ca.gov/wp-content/uploads/2020/07/Ag-ESP-updateagricultural-trends-FINAL-508.pdf)). Additionally, the implementation of the Delta Stewardship Council's "Good Neighbor Checklist" should be considered when construction these habitat restoration projects.	advocate for specific approaches to habitat restoration. Mitigation measures are provided that avoid or minimize impacts on farmland including siting and design considerations and compliance with applicable county and local jurisdiction requirements. A conservative threshold of significance for conversion is used that captures the importance of agriculture as a resource in California. The Staff Report acknowledges that the flow scenarios could result in conversion of agricultural lands to non-agricultural use and identifies mitigation measures that could be implemented to mitigate these impacts.
238	15	Flood Protection: The flood risk analysis performed in Section 7.12.1 concludes that increases in flood risks in the tributaries are minimal for the proposed Plan amendments. Climate change including sea level rise is a critical element that should be considered when assessing flood risks, which is not currently included in the SacWAM scenario runs. Table 7.12.1-21 shows that during the months of January in the 55 percent scenario, the top 10 percent average flow for Putah Creek would increase by 53 percent compared to the baseline top 10 percent average flow. But, the maximum flow for the 55 percent scenario is still below the baseline maximum flow. Since higher flows are more frequent as modeled, the Staff Report does not discuss nor provide any analysis on how elevated flow levels in Putah Creek may potentially impact flood risks upstream in other smaller upper watershed streams that feed into Putah Creek. The flood risk impacts in these local upper watershed areas may be significant. As a result of higher year-round tributary flows and the surface water and groundwater connectivity, groundwater levels in the area may potentially be higher due to higher seepage from the levees, thus, increasing the level of risk for flooding in surrounding areas that receive overland storm runoff. These secondary flooding issues should be addressed and analyzed in the Staff Report.	As described in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, available flood space in reservoirs would be used to temporarily hold back flows that would cause flooding. The water held back in the reservoir to temporarily reduce downstream flood risk could be released later, when flood risk subsides, so that on a monthly basis the flow requirement could still be met. See Common Response 1.3, Revised Proposed Plan Amendments, for a description of the regulatory pathway implementation of the inflow objective, which would not require increased flows at times that could contribute to flooding. Climate change could increase the magnitude of some storms. However, because the proposed Plan amendments would increase winter and spring releases from reservoirs, more space would be available to store water and prevent downstream flooding with the proposed Plan amendments. See Common Response 4.2, Drought and Climate Change, for a response to comments about climate change modeling. The proposed Plan amendments would not significantly alter flow in the upper watershed of Putah Creek upstream of Lake Berryessa. In many locations, average annual flows associated with the proposed Plan amendments would not be higher than under baseline conditions. Higher flows during winter and spring could lead to some increase in groundwater recharge during those times. However, this groundwater recharge would not be sufficient to cause groundwater levels to rise so much that it

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			would interfere with percolation of storm runoff unless groundwater levels are close to the ground surface. In some limited areas of the Sacramento Valley floor, high river or bypass flows could be associated with ponding adjacent to levees. However, this type of ponding is limited, occurs under existing conditions, and would have minimal effect on tributary flows.
238	16	In the Environmental Checklist in Section 7.12.1.1 Item 1 in the following was identified as having "less than significant" with mitigation incorporated. "Expose people or structures to a significant of risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee and dam" This condition evaluation should be considered as "potentially significant impact". With generally higher water flows and levels in the waterways year-round as proposed in the unimpaired flow scenarios, the risk for levee failure would also increase due to higher flow velocities and seepage rates through the Delta levees. Even with the assumption of improved levees, the risk for flood impacts or levee failure may still be higher relative to lower flows and levels. Field research has shown that Delta levees are vulnerable to structural failure if not improved as noted in Section 7.12.1.2, Pg 7.12.1-45. Further, Pg 7.12.1-49, explains how high tides and flow increases can degrade the structural integrity of levees, "High tides and flows increase pressure on levees by increasing the height of the water the levee must hold back. High water, while adding pressure to a levee protecting an island, also contributes to wave wash-wind-generated waves hit a levee and wash water over the crest of the levee, eroding the backside of the levee as the water runs off. The eroded levees then cannot withstand as much pressure as the fully intact levee. High water also increases seepage through and under the levee. Levees, which are made of soil, become saturated when in constant contact with water. Higher water levels for extended periods of time increase the seepage, which also can damage levees." Therefore, mitigation measures to repair and rehabilitate	Existing levees are continually being repaired and rehabilitated. The Flood Risk, Erosion, and Channel Processes section of Section 7.12.1, Surface Water, describes ongoing work to monitor and strengthen Sacramento/Delta levees and reduce flood risk. As described in the environmental setting of Section 7.12.1, the very highest flows can cause flooding and excessive, large-scale erosion. The velocity associated with these flows is high enough to move large pieces of channel substrate, such as spawning gravel. More moderate rainy-season flows may be more beneficial, potentially allowing the ecological benefits of floodplain inundation without significant erosive damage. As described for Impacts SW-c and SW-d in Section 7.12.1, the flow requirements under the proposed Plan amendments are intended to mimic a more natural hydrograph, which would help restore beneficial geomorphic processes rather than cause negative effects. The flood risk evaluation in Section 7.12.1 (Impact SW-i), analyzed high flows during the wettest months on 11 reservoir-controlled rivers that would be subject to flow requirements under the proposed Plan amendments. Clear Creek is the only stream expected to have substantial increases in high flows, but these would not increase above historical conditions prior to use of the Spring Creek Tunnel and increases in flow are not expected to cause flooding along Clear Creek for reasons described for Impacts SW-c, SW-d, and SW-i, including implementation of Mitigation Measure SW-i, Avoid or Reduce Exposure of People or Structures to Flood Risk on Clear Creek. As described for Impact SW-i and in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, and Chapter 13, Revised Proposed Plan Amendments , the revised

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		existing levees must be implemented in order to reduce or minimize the impact of higher risk of levee failure associated with increased flow included in the unimpaired flow impact analysis. Additionally, the Staff Report should also evaluate the impacts of the habitat restoration efforts on flood conditions in the Delta.	proposed Plan amendments include provisions to ensure that flow requirements would not cause flows to exceed levels that could cause or contribute to flooding or other related public safety concerns. Reservoir releases to meet instream flow requirements would not exceed the capacity of the levees. Effects of habitat restoration on flood conditions are considered in Section 7.21, Habitat Restoration and Other Ecosystem Projects. Future restoration projects, such as setback levee projects, could increase capacity or extent of floodplain habitat and provide additional capacity to convey flows in rivers and flood bypasses in the Delta. Large restoration projects have the potential to provide additional flood storage space and reduce flood stage in the main waterway. The analysis identifies that habitat restoration projects could alter the hydrology and existing drainage pattern of the site or area improperly designed, and mitigation measures are identified.
238	17	Climate Change: Impacts to climate change is a critical element of analysis that is missing in the SacWAM modeling along with its associated impact analysis as indicated in Section 6.2.3, Pg 6-8, "Anticipated changes in hydrology and water supply associated with climate change are not explicitly modeled using SacWAM for this Staff Report." And the Staff Report continues to point out in Section 4.6, Pg 4-35 & 36 that, "In the Bay-Delta, climate change impacts are predicted to include higher ambient temperatures, increased salinity intrusion, and reduced water supply reliability. The trend of increasing temperature through the twentieth century has decreased the controllable water supply, raised flood risk, and contributed to the severity of recent droughts." "Warmer water temperature because of less runoff from snowmelt in spring and summer may directly affect the life cycle of many fish species." All of the potential climate change impacts mentioned above are not considered or reflected in the current modeling results presented in the Staff Report. Climate change is such a significant hydrologic driver and plays an important role in water management, especially operational changes in various river flow regimes. The latest available climate change science must be	The 2023 draft Staff Report describes SacWAM climate change modeling challenges in Section 6.2.3, Climate Change. As SacWAM is continually refined in the future, climate change inputs may become easier to incorporate. Please refer to Common Response 4.2, Drought and Climate Change, regarding the inclusion of climate change modeling in the Staff Report and the analysis of potential climate change impacts. The 2023 draft Staff Report evaluates reservoir storage in the context of the Plan update in Section 6.3, Changes in Hydrology, Section 13.4.3, Changes in Hydrology, and in Section 9.5.3, Changes in Hydrology. Additionally, temperature impacts related to reservoir storage are discussed in Section 7.12.1.3 under Impact SW-f. Section 4.6, Climate Change, acknowledges that climate change may cause changes in the magnitude and timing of flow, thus potentially negatively affecting the maintenance of cold water habitat below reservoirs. Please see Common Response 4.2, Drought and Climate Change, for further explanation on the consideration of climate change within the Staff Report. Sea level rise and associated salinity intrusion are considered in the Staff Report in Section 4.6, Climate Change.

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		incorporated into the SacWAM modeling and impact analysis once an updated climate change modeling is available. As an illustration, a critical climate change impact is on the availability of upstream reservoir storage, which would provide much of the needed flexibility to facilitate year-round unimpaired flow scenarios and cold-water demand. With climate change there would be additional pressure on reservoir systems regarding the availability of water supply in storage due to early snowmelt, longer droughts, and extreme floods. Salinity intrusion subject to sea level rise is another element that would also need to be fully addressed.	
238	18	Conclusion The Sacramento-San Joaquin Delta watershed is a very complicated hydrologic, ecologically challenged, and dynamically managed water system. Based on the many diverse issues and concerns raised in the above comments regarding the proposed unimpaired flow alternatives, we support the VA alternative approach which would provide a more sustainable ecosystem and climate resilient future for all Delta water users in the County. We believe that the VAs would provide a good initial governance structure and framework for collaboration and partnership among users and interested parties affected by the environmental and water supply issues. The principle of local control has worked well for most of the SGMA groundwater basins and we hope that the alignment of this principle with the Vas would be effective as well to achieve the intended Delta co-equal goals mandated by the Delta Reformed Act. The Vas has a rigorous monitoring and adaptive management program for climate change adaptation and in anticipation of changes in flow management in general. It also has currently an effective functioning program on habitat restoration with more ecological habitat development coming online and added flows as proposed. We understand that the proposed Vas is still work in progress (Section 9.3.1, Pg 9-7), and we look forward to the additional components and improvements that would be integrated into the overall 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.

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239	1	My family and many friends were not able to put fresh king salmon on their dinner tables this year but a few orchard owners made millions exporting almonds to China. Los Angeles County spends 100's of millions a year dealing with storm run off the LA channel. Why are they not capturing that water to use for irrigation. Why do we go with brown lawns and no salmon in Norcal while they have lush orchards in Socal. Please stop the madness before we are forced to further pursue the State of Jefferson	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.
240	1	While CVWD agrees that it is very important and necessary to protect, restore and enhance the Delta ecosystem and the environment as a whole, it is also equally important to balance these needs with the needs of other users, including urban and agricultural entities to avoid health and safety, and economic impacts. CVWD wishes to express its concern over the proposed 55% Unimpaired Flow (UIF) Concept presented in the Draft Staff Report and urges the State Water Resources Control Board to instead adopt the Healthy Rivers and Landscapes Agreement as outlined in Alternative 6.	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.
240	2	CVWD provides water to municipal and agricultural customers in the Coachella Valley (Valley) and its water supply portfolio relies on two external sources: State Water Project (SWP) and Colorado River Water (CRW). Due to responsible water management, CVWD has been able to weather the impacts from a decrease in water imports into the Valley due to 1) historically low SWP Table A allocations (successive years of 5% in 2021 and 2022) and 2) voluntary CRW conservation efforts to help the worsening conditions in the Colorado River basin. Although CVWD is able to absorb some impacts from temporary reductions in water deliveries, the modeling impacts are shown in Table A1-521. Total Water Supplied to Total SWP Table A exceedance Probability Distribution of Deliveries by Scenario (TAF) Deliveries, in the Draft Staff Report, indicate a long-term reduction of 27.8% of SWP supplies under the 55% UIF concept (mean 1,861 thousand acre-feet (TAF) verses baseline 2,579 TAF). These reductions will have significant impacts on our local communities and farms and the ability to comply with the Sustainable Groundwater Management Act (SGMA).	The 2023 draft Staff Report adequately evaluates and discloses the potentially significant environmental impacts of the flow scenarios associated with local communities, agriculture, and compliance with the Sustainable Groundwater Management Act (SGMA) in Chapter 7, Environmental Analysis. For more information on these topics, please refer to Common Response 8.1, Economic Analysis and Other Considerations, regarding the agricultural economic analysis in the 2023 draft Staff Report and Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, regarding SGMA as a mitigation measure and how SGMA aligns with the Sacramento/Delta Bay-Delta Plan Update.

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240	3	CVWD's 2020 Coachella Valley Regional Urban Water Management Plan projected that between 2025 and 2035, the Valley's population may increase by 15.8% and the projected water demand may increase by 11.5%. A reduction of CVWD's SWP supplies by 27.8% under the 55% UIF criteria, in addition to the uncertainties of water supply in the Colorado River Basin and the ongoing negotiations for the post-2026 Interim Guidelines, may significantly decrease CVWD's water supplies, therefore, making it more challenging to meet local urban and agricultural demands while complying with SGMA.	Please see the response to Comment 240-2.
240	4	For these reasons, CVWD supports the Healthy Rivers and Landscapes Agreements, Alternative 6, as the only alternative that can be immediately implemented at the finalization of the Bay-Delta Plan update and the only alternative that can protect all beneficial uses of 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 the consideration of beneficial uses.
241	1	I live in the foothills of the beautiful Sierras - our water source. I am a retired adult educator. I support sensible science-based water conservation, protection for salmon and other endangered fish/ wildlife, tribal rights and natural ecosystems and environmental preservation. Please DO NOT follow 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.
242	1	I have attended hearings and testified during Public Comments. Yet, I struggle to understand how the State can legally turn its back on scientific evidence, history, will of the people, recent experience and the reality. You, for the State, are required to lead restoration of the Bay Delta. Human beings need water. The particular salmon runs in the particular rivers need that particular water. They require it to survive. They require it to thrive. No reason has been presented to justify the extreme priority of agriculture over everything else, such as Tribal rights. Vas have proven utterly useless. Time is passing, fish are dying, the water system is failing 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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		The governor has made big bones about his 30 x 30 plans. How can we look at our water systems in a way not in line with that philosophy? To rely on Vas into the future is to fail the future. I am descended from Native Americans, in the Bay Area, Ohlone, Patwin and Miwok. For hundreds of generations literally they tended the land so that when European settlers arrived, they thought it looked like Eden. Yet in a matter of less than 200 years, much less 200 generations, we have done so much damage. And we are so unwilling to take responsibility for our actions. We need to learn to live within our carrying capacity and not take everything in sight. California is such a magnificent place because of the environment. Not because of Los Angeles parking lots. If common sense does not prevail, we understand the Brown Machine is in charge...or.. California agricultural investors are more powerful. Stick to science. Look at the track record! Seven generations from now, how will your decision play out?	
243	1	1. The State Board Failed to Provide Notice of Amendments to 2018 Bay-Delta Plan Pursuant to the Porter-Cologne Water Quality Control Act ("Porter-Cologne Act"), the State Board must provide notice and a hearing before it may revise a water quality control plan. (Wat. Code, § 13244; Wat. Code § 13170 [making regional water board basin plan requirements applicable to the State Board].) Similarly, the California Environmental Quality Act ("CEQA") requires the State Board to issue a notice of preparation describing its proposed water quality control plans (or revisions thereto), the location of the project, and the probable environmental effects of a proposed water quality control plan (or revisions thereto). (Cal. Code Regs., tit. 14, § 15082; Pub. Res. Code, § 21080.4; Pub. Res. Code, § 21080.5 [certified regulatory programs only exempt from Chapters 3 and 4 of the California	As described in more detail in the Staff Report, including Chapter 1, Executive Summary and Chapter 12, Public Participation, the State Water Board followed all applicable notice and public process procedures for the Sacramento/Delta updates to the Bay-Delta Plan. The Plan amendments do not modify any flow objectives promulgated for the San Joaquin tributaries in the 2018 Plan Update. Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of the interaction of the Sacramento/Delta updates with the 2018 LSJR/SDS updates, and Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the inflow-based Delta outflow objective. Please see also responses to comments 243-2, 243-3, and 243-4.

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		Environmental Quality Act, and section 21167].) The State Board provided notice of the Sacramento/Delta (i.e., Phase 2) updates to the Bay-Delta Plan via the “Supplemental Notice of Preparation and Notice of Scoping Meeting for Environmental Documentation for the Update and Implementation of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary: Comprehensive Review,” dated January 24, 2012 (“Supplemental NOP”). (Draft Staff Report, at 1-15 – 1-16.) The Supplemental NOP describes the project as a “review of potential modifications to current objectives included in the 2006 Bay-Delta Plan, the potential establishment of new objectives, and modifications to the program of implementation for those objectives.” (Supplemental NOP, at 6.) As relevant here, the Supplemental NOP explicitly states a separate substitute environmental document (“SED”) will be prepared to address updates to the water quality objectives for the Lower San Joaquin River watershed and southern Delta. (Supplemental NOP, at 6.) The Supplemental NOP describes the project location as “1) the watershed of the Bay-Delta, 2) the Trinity River watershed from which water is diverted into the watershed of the Bay-Delta, and 3) areas receiving water exported from the Bay-Delta.” (Supplemental NOP, at 6.) As the Supplemental NOP was issued in 2012, it did not propose revisions or modifications to the later-adopted 2018 Bay-Delta Plan which included, among other things, new flow objectives for the Lower San Joaquin River and the Stanislaus, Tuolumne, and Merced Rivers.	
243	2	The Draft Staff Report proposes several revisions to the 2018 Bay-Delta Plan [Footnote 2: The Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, dated December 12, 2018 is available on the State Board’s website at the following address: https://www.waterboards.ca.gov/plans_policies/docs/2018wqc.pdf] which were not covered by the Supplemental NOP project description. First, the Draft Staff Report proposes to revise the February-June Vernalis Base Flow Objective in the 2018 Bay-Delta Plan. Specifically, the 2018 Bay-Delta Plan requires that 40% of unimpaired flow (with a permissible range between	The proposed Plan amendments do not modify any flow objectives promulgated for the San Joaquin tributaries in the 2018 Plan Update. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the inflow-based Delta outflow objective. The inflow-based Delta outflow objective simply requires that required inflows (from the Sacramento/Delta and Lower San Joaquin River) be provided as outflows. If no flows are required outside the January-June time period, then no additional flows would be required for Delta Outflow. Implementation of the inflow-based Delta outflow objective could not alter the upstream inflow requirements and

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		30%-50%) on the Stanislaus, Tuolumne, and Merced Rivers be maintained instream from February through June, and that a base flow of 800 cubic feet per second ("cfs") to 1,200 cfs be maintained at Vernalis on the San Joaquin River during the same time period. (Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, December 12, 2018 ["2018 Bay-Delta Plan"], at 15 [Table 3].) The Draft Staff Report proposes to add an Inflow-Based Delta Outflow Objective that will require San Joaquin River flows be committed to Delta outflow year-round. (Draft Staff Report, at 5-28 – 5-29.) To the extent this objective may require flows at Vernalis year-round for the purpose of meeting the Inflow-Based Delta Outflow Objective or the related and intertwined Narrative Delta Outflow Objective, it expands the Vernalis Base Flow Objective in the 2018 Bay-Delta Plan which only applies from February through June. This proposed expansion to the San Joaquin River flow requirements was not noticed and is not analyzed in the Draft Staff Report.	thus would have no effect on the required inflows from the Lower San Joaquin River.
243	3	Second, to the extent the Inflow-Based Delta Outflow Objective commits the 40% unimpaired flow of the Stanislaus, Tuolumne, and Merced Rivers to Delta outflow, it expands the reach of the unimpaired flow objectives in the 2018 Bay-Delta Plan by adding a new compliance point (i.e., past Vernalis and through the Delta) that would divest water right holders on the Stanislaus, Tuolumne, and Merced Rivers of the ability to exercise dominion and control over regulatory releases or bypassed flows beyond Vernalis. (See Wat. Code § 7075.) This proposed change regarding the final compliance point for flow objectives on the Stanislaus, Tuolumne, Merced, and San Joaquin Rivers was not noticed, and the environmental and economic impacts are not analyzed in the Draft Staff Report, as is required by CEQA and Water Code section 13241.	Page 24 of the 2018 Bay-Delta Plan stated the "Board's intention that an entity's implementation of the LSJR flow objectives...will meet any responsibility to contribute to the LSJR inflow component of the Delta outflow objective in [the Bay-Delta] Plan." It also acknowledged that the State Water Board could "further consider and allocate responsibility for implementing the Delta outflow objective in any subsequent proceeding, including a water right proceeding." The commenter is asserting claims related to LSJR/SD implementation and that are independent of the Sacramento/Delta update and would not be ripe until the State Water Board further considers allocation of responsibility for meeting the LSJR/SD flow objectives. The proposed Plan amendments do not modify any flow objectives promulgated for the San Joaquin tributaries in the 2018 Plan Update. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the inflow-based Delta outflow objective. The inflow-based Delta outflow objective simply requires that required inflows (from the Sacramento/Delta and Lower San Joaquin River) be provided as outflows. Implementation of the inflow-based Delta outflow objective could not alter the upstream inflow requirements and thus would have no effect on the required inflows from the Lower San Joaquin River.

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243	4	Third, the Draft Staff Report proposes revisions to the program of implementation (“POI”) in the 2018 Bay-Delta Plan that were not covered by the Supplemental NOP. The POI in the 2018 Bay-Delta Plan allows for the 40% unimpaired flow objective on the Stanislaus, Tuolumne, and Merced Rivers to be adaptively adjusted between 30% and 50% on two conditions: (1) the change will be sufficient to support and maintain the natural production of viable native San Joaquin River watershed fish populations migrating through the Delta, and (2) the change will meet any existing biological goals. (2018 Bay-Delta Plan, at 26.) The Draft Staff Report proposes additional grounds for adjusting between the 30% and 50% range. Specifically, the Draft Staff Report proposes a Narrative Delta Outflow Objective “[t]o help inform implementation of the numeric Delta outflow objective,” meaning the Inflow-Based Outflow Objective. (Draft Staff Report, 5-28.) To the extent the Narrative Delta Outflow Objective could be used to implement the Inflow-Based Delta Outflow Objective by changing the inflow requirements at Vernalis (or the unimpaired flow requirements upstream on the Stanislaus, Tuolumne, and Merced Rivers), it adds a new basis for adjusting the 30% to 50% unimpaired flow objective on the Stanislaus, Tuolumne, and Merced Rivers, i.e., noncompliance with the Narrative Delta Outflow Objective (which covers all native anadromous fish, estuarine fish, and aquatic species populations rearing in or migrating through the Bay-Delta estuary, not just San Joaquin River native fish populations covered by the narrative objective in the 2018 Bay-Delta Plan). (Draft Staff Report, at 5-28.)	As explained in Section 5.4.4, Delta Outflows, of the 2023 draft Staff Report, the inflow-based Delta outflow objective simply requires that required inflows (from the Sacramento/Delta and Lower San Joaquin River) be provided as outflows. Implementation of the inflow-based Delta outflow objective could not alter the upstream inflow requirements and thus would have no effect on the required inflows from the Lower San Joaquin River. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on the inflow-based Delta outflow objective.
243	5	2. The Draft Staff Report Fails to Analyze Impacts of Requiring San Joaquin River Flows as Delta Outflow The basic purposes of CEQA are to (1) inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities, (2) identify ways that environmental damage can be avoided or significantly reduced, (3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures, and (4) to disclose to the public the reasons why a governmental agency approved the project in the manner chosen. (Cal. Code Regs., tit., 14, §	The inflow-based outflow objective does not compel year-round flows from the San Joaquin River or change any of the flow objectives established in the LSJR/SD Bay-Delta Plan Update. Implementation of the inflow-based Delta outflow objective could not alter the upstream inflow requirements and thus would have no effect on the required inflows from the Lower San Joaquin River. For more information, see Common Response 1.3, Revised Proposed Plan Amendments, regarding the regulatory pathway implementation of the outflow objectives. In December 2018, the State Water Board adopted Bay-Delta Plan amendments focused on flows in the Lower San Joaquin River and its three major tributaries (the Stanislaus, Tuolumne, and

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		15002.) While certified regulatory programs such as the State Board's water quality control planning process are exempt from certain procedural requirements of CEQA, they are not exempt from "the broad policy goals and substantive standards of CEQA" (Pesticide Action Network North America v. Department of Pesticide Regulation (2017) 16 Cal.App.5th 224, 242.) Accordingly, the Draft Staff Report, which purports to serve as a substitute for an environmental impact report, must fulfill these basic purposes as well as the specific requirements of California Code of Regulations, title 23, section 3777. (Cal. Code Regs., tit. 23, § 3777 [Draft SED "shall include" a "brief description of the proposed project," "[a]n identification of any significant or potentially significant adverse environmental impacts of the proposed project," "[a]n analysis of reasonable alternatives to the project and mitigation measures," and "[a]n environmental analysis of the reasonably foreseeable methods of compliance"].) Additionally, when the State Board establishes new water quality objectives, it must consider, among other things, other beneficial uses of water, the environmental characteristics of the waterbodies under consideration, water quality conditions that could reasonably be achieved through the coordinated control of all factors affecting water quality in the area, and economic impacts. (Wat. Code, § 13241.) The proposed Narrative Delta Outflow Objective will be used to implement the Inflow-Based Delta Outflow Objective, and could thereby compel year-round flows from the San Joaquin River as well as additional flows from the Stanislaus, Tuolumne, and Merced Rivers that would not otherwise be required by the 2018 Bay-Delta Plan. In effect, the Draft Staff Report proposes to authorize the State Board to require new and unknown quantities of water from the San Joaquin River watershed. However, the Plan Area of the Draft Staff Report excludes the San Joaquin River watershed (Figure 1-1b), and the report itself does not analyze any impacts to the San Joaquin River watershed from year-round or additional flows. As noted above, both CEQA and the Porter-Cologne Act require an analysis of a wide range of anticipated impacts from water quality control plan revisions, and the Draft Staff Report fails to comply with those requirements because it does not contain any analysis of impacts	Merced Rivers) for the protection of fish and wildlife. In addition, the 2018 Bay-Delta Plan amendments included a new salinity objective for the reasonable protection of agricultural uses in the southern Delta. The State Water Board complied with CEQA in advance of the adoption of those amendments. The inflow-based Delta outflow objective would require any inflow already required to contribute to Delta outflow. No additional analysis is presented because no changes to those San Joaquin flow requirements are proposed. Please refer to Common Response 1.2, Water Quality Control Planning Process, regarding State Water Board authorities related to the water quality control planning process, the relationship to the LSJR/SD Update to the Bay-Delta Plan, and the applicability of Water Code section 13241.

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		within the San Joaquin River watershed, including on the Stanislaus, Tuolumne, and Merced Rivers.	
243	6	3. The Board Should Provide Clarification on the Protection of Delta Outflows The Draft Staff Report does not explain how flows from the San Joaquin River watershed will be protected as Delta outflow as part of the Inflow-Based Delta Outflow Objective. The Board should explain whether the 40% unimpaired flow from the Stanislaus, Tuolumne, and Merced Rivers will be available for export if all current operating restrictions are satisfied (e.g., 2019 Biological Opinions; CDFW 2020 Incidental Take Permit), or whether another mechanism or restriction will be implemented to protect those flows from export.	As explained in Section 5.4.4, Delta Outflows, of the 2023 draft Staff Report, flows provided pursuant to the Lower San Joaquin River flow objectives would be protected by the inflow-based Delta outflow objective. Please see final Staff Report Chapter 13, Revised Proposed Plan Amendments, and Common Response 1.3, Revised Proposed Plan Amendments, for more information on the inflow-based Delta outflow objective.
243	7	4. The Draft Staff Report Fails to Analyze Impacts of the Proposed Objectives on Biological Goals Adopted Pursuant to the Phase 1 Update of the Bay Delta Plan The Board recently adopted Final Initial Biological Goals for the Lower San Joaquin River (Biological Goals) that, pursuant to the 2018 Bay-Delta Plan, will be used to, among other things, adjust the required unimpaired flow percentages on the Stanislaus, Tuolumne, and Merced Rivers between the 30% and 50% range, and evaluate the need for future changes to objectives within the San Joaquin River watershed. (2018 Bay-Delta Plan, at 28.) The Draft Staff Report fails to analyze the environmental or other impacts of the proposed objectives on achievability of the Biological Goals and/or the resulting changes to flow requirements on the Stanislaus, Tuolumne, and Merced Rivers. The Biological Goals extend beyond the Stanislaus, Tuolumne, and Merced Rivers to the Delta, and as a result any objectives adopted within the Delta, or within the Sacramento River watershed that will influence the Delta, could impact attainment of the Biological Goals. Those impacts should have been evaluated and analyzed in the Draft Staff Report both under CEQA and the Porter-Cologne Act, as both require an evaluation of the impacts of water quality objectives. Moreover, the Board's decision to segment its review and adoption of the Phase 1 update to the Bay-Delta Plan, the Biological Goals, and the Phase 2 update to the Bay-Delta Plan violates CEQA's prohibition on	The numeric objective adopted in the Bay-Delta Plan Update for the LSJR/SD is a starting point of 40 percent of the unimpaired flow within a range of 30 to 50 percent on the Stanislaus, Tuolumne, and Merced Rivers. The substitute environmental document (SED) for the LSJR/SD fully analyzed the potential environmental impacts within that range. The biological goals adopted for the LSJR/SD update are metrics to evaluate whether implementing the LSJR/SD flow requirements is achieving the goals. Importantly, they only allow adaptive implementation within the range of what was previously analyzed in the SED. Because the LSJR/SD is already identified as a potentially cumulative project to the Sacramento/Delta and the biological goals do not change any flow or other requirements of the LSJR/SD beyond what was previously fully analyzed, there are no cumulative impacts attributable to the biological goals. Please refer to Common Response 1.2, Water Quality Control Planning Process, regarding the relationship to the LSJR/SD Update to the Bay-Delta Plan. Also refer to Common Response 7.1, General CEQA and Approach to the Analysis, regarding the scope of the project described and analyzed.

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		segmentation or piecemealing. Water users in the San Joaquin River watershed cannot be made responsible through the Biological Goals and the Phase 1 updates to the Bay-Delta Plan for ineffectual or confounding/contradictory objectives adopted for the Sacramento watershed, the Delta, and the Delta eastside tributaries. The Board's failure to analyze the impact of the proposed flow objectives in the Draft Staff Report on Biological Goals creates a risk that water users within the San Joaquin River watershed will shoulder responsibility for impacts on biological resources within the Delta caused by Project operations and insufficient water quality objectives within the Sacramento River watershed/Delta.	
243	8	5. Proposed Implementation of the Inflow-Based Delta Outflow Objective is Unlawful The Draft Staff Report proposes that the Inflow-Based Delta Outflow Objective be implemented, in part, by State Board staff development of "a methodology for limiting water diversions to achieve compliance with the inflow-based Delta outflow objective within 18 months of approval of the Plan amendments by OAL." (Draft Staff Report, at 5-32.) To the extent this process will include development of "accounting methodologies to administer the water right priority system" and "assumptions for water right priorities and uses" (Draft Staff Report, at 5-13), it will involve adjudicatory decisions that cannot be made at the staff level, or without an evidentiary hearing where relative water right priorities and hydrologic connectivity across the Delta watershed are determined. The legislature has set forth a specific stream adjudication process for determining relative water right priorities and hydrologic connectivity between waterbodies. (Wat. Code, § 2500, et seq.) That process requires notice, investigation, a hearing, and a decree of court, among other procedural safeguards. (Id.) There is no substitute for this process, and failure to abide by it would result in infringement upon property rights without due process of law. (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 101 [recognizing water rights as property rights that cannot be taken without due process and just compensation].)	The State Water Board can appropriately implement through both water right and water quality actions. Please see Common Response 1.2, Water Quality Control Planning Process, for additional explanation regarding appropriate due process of law. Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the implementation methodology.
243	9	6. The Draft Staff Report Improperly Defines Water Rights and Should Be Corrected	The commenter's definition of water right and the definition of water right in the Staff Report are not in conflict. The definition

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		The Draft Staff Report defines a water right as “a legal permission to use a reasonable amount of water for a beneficial use such as domestic, irrigation, power, municipal, mining, industrial, fish and wildlife preservation and enhancement, aquaculture, recreational, stock watering, water quality, frost protection, or heat control.” (Draft Staff Report, at 1-115.) This is an erroneous statement of law and must be corrected. Courts have repeatedly and consistently held that “once rights to use water are acquired, they become vested property rights” and “cannot be infringed by others or taken by governmental action without due process and just compensation.” (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 101; see Ivanhoe Irrigation Dist. v. All Parties & Persons (1957) 47 Cal.2d 597, 670-671 [once acquired, a water right “is a property right and protected by the due process clauses of both the state and federal constitutions”], revd. on other grounds in Ivanhoe Irrigation Dist. v. McCracken (1958) 357 U.S. 275, 291; Stanislaus Water Co. v. Bachman (1908) 152 Cal. 716, 725-727 [“water in its natural situation upon the surface of the earth, whether as a flowing stream, as a lake or pond, or as percolations in the soil, is real property”]; Fullerton v. State Water Resources Control Bd. (1979) 90 Cal.App.3d 590, 598 [“Although there is no private property right in the corpus of the water while flowing in the stream, the right to its use is classified as real property”].) Courts have recognized the distinction between a water right and a legal permission to use water; the former is a property right and the latter is a license. (See Davis v. Martin (1910) 157 Cal. 657 [“No length of time of use by permission will gain a title or right by prescription”]; Heinkel v. McAllister (1952) 113 Cal.App.2d 500 [permission to use water from the owner’s property was a neighborly arrangement only and did not create a permanent right by irrevocable license or prescription]; see generally, Richardson v. Franc (2015) 233 Cal.App.4th 744, 758-759 [“a license does not create or convey any interest in the real property; it merely makes lawful an act that otherwise would constitute a trespass”].) The definition in the Draft Staff Report	referenced by the commenter, in Chapter 1, Executive Summary, of the Staff Report, is repeated in Chapter 2, Hydrology and Water Supply, Section 2.7, Existing and Future Water Rights in the Sacramento/Delta Watershed. There, the report elaborates that “A riparian water right generally provides a right to use the natural flow of a waterbody on riparian land. . . .” Additional general discussion of water rights is provided in Section 5.2.2, Water Rights. For the purposes of the Staff Report, informing the public about the environmental impacts and economic effects of the update to the Bay-Delta plan, calling a water right a “legal permission” is sufficient to describe, in general terms, what a water right is for someone without prior knowledge. By further expanding on the types of water rights in Section 2.7, the Board adequately defines water rights.

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		incorrectly conflates a property right with permissive use and the error should be corrected.	
243	10	The Draft Staff Report Contains an Incomplete Definition of Waste That Needs Correction Article X, Section 2 of the California Constitution precludes the “waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.” The Draft Staff Report states, “[w]hat constitutes a waste is relative, based on competing needs, and the determination may change as conditions change.” (Draft Staff Report, at 5-6 [emphasis supplied].) This definition is incomplete and therefore incorrect. Although waste determinations are, in fact, relative, they cannot be based on the competing needs of users, but rather only on competing uses. The definition in the Draft Staff Report fails to capture this nuance and, if followed, could justify a determination that one party’s use of water for agricultural purposes is wasteful, while another party’s use of water for the same purpose, in the same location, and at the same time, is not wasteful. This would create an improper mechanism for evading the rules of water right priority which yield to the constitutional prohibition on waste and unreasonable use. The definition should be corrected. In any event, as the definition acknowledges that determinations of waste are relative and based on changing factual conditions, it undermines the State Board’s continued insistence that determinations of waste can be made through generally applicable regulations. (Pacifica Corp. v. City of Camarillo (1983) 149 Cal.App.3d 168, 175 [“a legislative act is the formulation of a rule to be applied to all future cases, while an adjudicatory act involves the actual application of such a rule to a specific set of existing facts].)	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. California water rights law has long recognized that waste determination can be based on competing needs: “What may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need.” (See Andrew H. Sawyer, Changing Landscapes and Evolving Law: Lessons from Mono Lake on Takings and the Public Trust (1997) 50 Okla. L. Rev. 311, 331, citing Tulare Dist. v. Lindsay-Strathmore Dist. (1935) 3 Cal.2d 489, 567 [45 P.2d 972].) Similarly, “[t]here is but a limited supply of water in this state available for irrigation and other useful purposes, and a paramount public policy requires a careful economy of that supply. So long as there is but a single appropriator of water on a stream it matters not how imperfect or wasteful may be the means by which he diverts the quantity of water to which he is entitled. No one else is affected, and there is no ground for complaint. But when subsequent appropriators divert the entire surplus at points above him he is required to use all reasonable diligence to husband what is left, and if, by such diligence, and the use of ordinary means of diversion, he can obtain all that he is entitled to, he cannot complain on account of the trouble and expense which it may involve.” (Natoma Water & Min. Co. v. Hancock (1894) 101 Cal. 42, 50-51.) “What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time.” (Tulare Dist. v. Lindsay-Strathmore Dist. (1935) 3 Cal.2d 489, 567.) The reasonableness of a use of water depends largely on the circumstances, but that does not undermine the State Water Board’s adoption of regulations determining waste. The Board has the authority to determine per se unreasonable uses of water. (See Stanford Vina Ranch Irrigation Co. v. State of California (2020) 50 Cal.App.5th 976, (citing Light v. State Water Resources Control Bd. (2014) 226 Cal.App.4th 1463, 1484-

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			1485).) “We perceive no legal obstacle to the Board's determination that particular methods of use have become unreasonable by their deleterious effects upon water quality.” (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 130.)
243	11	8. Modular Drought Alternatives 5a and 5b Should be Rejected and Excluded from the Program of Implementation The Draft Staff Report proposes two modular drought alternatives identified as 5a and 5b “to address the issue of limited water supplies during dry periods” which “could be applied as part of the proposed Plan amendments, other flow alternatives, or the proposed VAs.” (Draft Staff Report, 7.24-46.) As an initial matter, the Draft Staff Report should clearly state that neither Modular Drought Alternative 5a nor 5b can or will be applied to the San Joaquin River watershed or any water right holders or users therein because the Draft Staff Report does not cover the San Joaquin River watershed. In any event, for the following reasons, the State Board should reject both modular drought alternatives and direct staff not to include either one in the proposed program of implementation.	Please see Section 7.1.5.1, Sacramento/Delta, Plan Area, and Study Area, of the 2023 draft Staff Report for information on the plan and study area.
243	12	a. The Term 91-Type Approach (Alternative 5a) Should be Rejected Modular Drought Alternative 5a, referred to as the Instream Flow Protection Provision, would “expand a Term 91-type approach to other more senior water right holders and claimants.” (Draft Staff Report, at 7.24-47.) The stated purpose of expanding Term 91-style curtailments to senior water right holders would be to require “other diverters in addition to the Projects...to bypass natural flows until [water quality] objectives are met.” (Draft Staff Report, at 7.24-48.) According to the Draft Staff Report, “[t]he Projects would still have initial responsibility for bypassing flows to meet the objectives, but if more water was needed, others would also need to bypass flows” before the Projects would be required to release previously stored water. (Draft Staff Report, at 7.24-48.) This would spread the burden of meeting water quality objectives to water users other than the U.S. Bureau of Reclamation (“USBR”) and the California Department of Water Resources (“DWR”), including to 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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		right holders that are senior to USBR and DWR. The State Board should reject this proposal.	
243	13	Salinity incursion in the Delta has been a “vexing problem” and consistently one of the “most important issues before the Board.” (Water Rights Decision 990 [“D-990”].) [Footnote 3: Water Right Decision 990 is available on the State Board’s website at the following address: https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/decisions/d0950_d0999/wrd990.pdf] In the 1920s, “the former State Water Commission favored the development of storage on the main streams and their tributaries above the Delta and the releases of this stored water at the proper time as a suitable method of controlling salinity.” (D-990, at 46 (emphasis added).) At approximately the same time, the State Legislature commissioned several reports to address the issue, one of which proposed the construction of Shasta Dam for “flood control, salinity control, navigation and irrigation,” and a second which “reaffirmed the conclusions that Shasta Dam be constructed for the principal purposes of relieving the salinity problem in the Delta and the furnishing of water to the San Joaquin Valley.” (D-990, at 46 (emphasis added).) In fact, “[e]xport to the San Joaquin Valley was considered after providing and guaranteeing an outflow at Antioch of not less than 5000 cfs,” effectively placing salinity control within the Delta above exports as the primary purpose of Shasta Reservoir. (D-990, at 47.) Consistent with these reports, in 1933, the U.S. Army Corps of Engineers provided Congress with a report recommending construction of Shasta Reservoir which “affirmed salinity control as one of the benefits to be derived from increased flows from Shasta Reservoir by providing a minimum discharge of 3,300 cfs at Antioch.” (D-990, at 47-48.) This purpose was codified in the River and Harbor Act, and it has been consistently recognized by the U.S. Supreme Court that “salinity control in the Delta is one of the purposes of the federally authorized Central Valley Project.” (D-990, at 48, citing U.S. v. Gerlach Livestock (1950) 339 U.S. 725; Ivanhoe Irrigation District v. McCracken (1958) 357 U.S. 275.) Similarly, in 1933, the “State Legislature authorized the Central Valley Project, making salinity control in the Sacramento-Delta one of the primary purposes of Shasta Dam.” (D-990, at 48.) This purpose is still	Please see Common Response 1.2, Water Quality Control Planning Process, on the relationship to the Lower San Joaquin Update. See Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report for the description of the proposed inflow-based Delta outflow objective with language stating that inflows for the San Joaquin River would be required as outflows. Also, as described in the 2023 draft Staff Report Section 1.3.1, Purpose and Need for Bay-Delta Update, the current Bay-Delta Plan objectives and implementation measures are minimal and focused on the Delta without considering instream flow needs within the tributaries and connecting those flows with the downstream watershed and Delta outflows. All water users contribute to reduced Delta outflows and affect salinity intrusion. As described in Chapter 2, Hydrology and Water Supply, under current requirements, average regulatory minimum Delta outflows are only about a third of current average outflows and less than 20 percent of average unimpaired outflows.

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		codified in Water Code section 11207(c), which states, “Shasta Dam shall be constructed and used primarily for the following purposes...(c) [s]alinity control in the Sacramento-San Joaquin Delta.” The United States developed the Central Valley Project in large part based upon the assignment of prior state-filed applications, which included the application for storage at Shasta Dam. (D-990, at 49.) “[P]rotection of the Delta from salinity incursion constituted a material part of the consideration for which the State of California assigned to the United States” those applications. (D-990, at 49.) When the State Board’s predecessor agency issued permits to the United States for operation of Shasta Dam and Reservoir in Water Rights Decision 990, it noted that “[w]hen the natural stream flow is insufficient to provide this minimum inflow” to the Delta to prevent salinity encroachment to certain levels, “releases of Project water from storage are needed.” (D-990, at 50-51 (emphasis added).) Critically, it was recognized at that time that prior collection of water to storage at Shasta made salinity conditions worse at later times in the same year: “This is because the spring runoff, which, in the absence of the Project, served to repel salinity incursion, would be modified to the extent of storage in Project reservoirs [with] [t]he result...be[ing] that salinity would begin to encroach into the Delta at an earlier date each year than would have occurred in the absence of the Project.” (D-990, at 51.) In other words, USBR’s prior storage of water is the very cause of salinity incursion later in the year. Decision 990 recognized that surplus water from CVP facilities other than Shasta also could be used to address the salinity issue: “with the completion of the Trinity River Division of the Project, there will be substantial surpluses of water available for several years which could be used for salinity control purposes until additional diversion facilities are built.” (D-990, at 51.) The permits for the Central Valley Project were ultimately issued with the understanding that stored Project water would be used to control salinity: “In resolving the issue of salinity repulsion, the Board does not intend that the United State is to be relieved of its share of responsibility in this matter.” (D-990, at 57.) The United States was directed to regularly report to the Board on	

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		this issue, and the Board reserved jurisdiction to impose appropriate permit conditions. (D-990, at 58.) In addition to the extensive findings in D-990 that the purpose of Shasta Reservoir and other CVP facilities was to store water for later releases to control salinity, the State Board also recognized in Water Rights Decision 1641 [Footnote 4: Revised Water Right Decision 1641 is available on the State Board’s website at the following address: https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/decisions/d1600_d1649/wrd1641_1999dec29.pdf] that “the actions of the CVP are the principal cause of the salinity concentrations” in the San Joaquin River watershed. (Water Rights Decision 1641 [“D-1641”], at 83.) Specifically, “high salinity at Vernalis [on the San Joaquin River] is caused by surface and subsurface discharges to the river of high saline water,” the sources of which are “agricultural lands and wetlands.” (D-1641, at 82.) Approximately 35 percent of the salt load comes from the northwest side of the San Joaquin River, and approximately 37 percent of the salt load comes from the Grasslands area,” totaling 72 percent of the salt load at Vernalis. (D-1641, at 82.) “These areas receive approximately 70 percent of their water supply from the CVP,” with the remaining 30 percent coming from precipitation and groundwater. (D-1641, at 82.) In short, “[t]he source of much of the saline discharge to the San Joaquin River is from lands on the west side of the San Joaquin Valley which are irrigated with water provided from the Delta by the CVP,” and “[t]he capacity of the lower San Joaquin River to assimilate the agricultural drainage has been significantly reduced through the diversion of high quality flows from the upper San Joaquin River by the CVP at Friant,” meaning that “USBR, through its activities associated with operating the CVP in the San Joaquin River basin, is responsible for significant deterioration of water quality in the southern Delta.” (D-1641, at 83.) By contrast, senior water right holders on the Stanislaus, Tuolumne, and Merced Rivers put their diversions “to beneficial use for purposes such as irrigation, hydropower generation, recreation, and fish and wildlife enhancement.” (D-1641, at 80-81.) The State Water Board found in D-1641 that these diversions are not only put to beneficial use, but that they “contribute to ensuring that the State’s water resources are put	

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		to beneficial use to the fullest extent of which they are capable” as required by Article X, Section 2 of the California Constitution. (D-1641, at 81.) Moreover, the Board found that enjoining or reducing these upstream diversions by senior water right holders on the Stanislaus, Tuolumne, and Merced Rivers to repel salinity in the Delta “would not be reasonable...since water quality objectives can and should be attained through regulation of other controllable factors.” (D-1641, at 81.) For these reasons, implementation of the Instream Flow Protection provision in Modular Alternative 5a would conflict with (1) the State Board’s prior findings that the Projects are the principal cause of the salinity issues in the Delta occasioned by insufficient inflow, (2) the statutory authorization to construct the Projects, (3) the Board’s issuance of permits and licenses for the Central Valley Project which were issued for the very purpose of controlling salinity incursion in the Delta by the release of stored water, and (4) the Board’s prior findings that reducing diversions by senior users on the Stanislaus, Tuolumne, and Merced Rivers to repel salinity would be unreasonable. Water users throughout the Central Valley filed 73 protests on 20 separate grounds in response to the assignment of state-filed applications to the United States for Shasta Dam, urging the imposition of permit terms and conditions for the protection of their water supply. (D-990, at 6.) As the permits for Shasta Dam and Reservoir were issued with the understanding that the CVP was a principal cause of salinity problems in the Delta, and that the U.S. Bureau of Reclamation would be responsible for using stored water to repel salinity incursion, the Board cannot now—more than 60 years later—reassign that responsibility to other water right holders so that the Bureau can maintain in storage the very water whose absence from the Delta caused the salinity issue in the first instance.	
243	14	Furthermore, as the Board previously found that storage of water at Shasta made salinity conditions worse at later times of the same year (D-990, at 51), the Instream Flow Protection Provision would contravene the rules of water right priority by requiring senior water users to forego diversions to repel salinity in the Delta at those later times. Typically, the rules of priority apply only to natural flows, not stored water. However,	Please see the response to comment 243-13.

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		that limitation should yield when prior diversions to storage cause the future impacts (i.e., insufficient Delta inflow) sought to be remedied by the water quality objectives being implemented. Senior water users should not be required to forego diversions of natural flow to repel salinity when it is the Projects' prior diversions to storage which caused the salinity intrusion. Under these circumstances, the Projects' stored water must be factored into future priority determinations, it cannot be deemed exempt from priority when it is the very cause of the purported water quality degradation sought to be remedied by the objectives.	
243	15	b. The Shared Water Shortage Provision (Alternative 5b) Should be Rejected The Shared Water Shortage Provision (Alternative 5b) would require "all water right holders and claimants (except de minimis users) in the Sacramento/Delta watershed" to "conserve water under drought conditions" to "contribute toward meeting the Bay-Delta Plan objectives, including instream flow, cold water habitat, and salinity control requirements." (Draft Staff Report, at 7.24-49 – 7.24-50.) The stated purpose of this approach is "to help avoid TUCPs and degraded environmental conditions during drought and reduce concentrating water supplyrelated impacts on a smaller number of users," namely the SWP and CVP. (Draft Staff Report, at 7.24-50.) In other words, the purpose is to help the Projects by spreading the obligation to meet water quality objectives to more senior users. The Board should reject this provision as it would violate the rules of water right priority by requiring contributions for water quality objectives from more senior users at times when junior users, such as the Projects, still have sufficient natural flow available to comply with those obligations. "[W]ater right priority has long been the central principle in California water law." (City of Barstow v. Mojave Water Agency (2000) 23 Cal.4th 1224, 1243.) Courts have recognized only very limited justifications for deviating from the rules of priority. As relevant here, in the context of imposing responsibility for meeting water quality objectives, courts have stated that the "Board cannot disregard priorities without substantial justification." (El Dorado Irrigation Dist. v. State Water Resources Control Bd. (2006) 142	This alternative would specify that all water users have an obligation to contribute toward meeting water quality and flow objectives. All water right holders and claimants would be required to reduce their consumptive use of water by a specific percentage (e.g., 20 percent) to contribute toward instream flows under drought conditions. The flow contributions would be required to remain instream and would be unavailable for diversion by other users. By applying this conservation rule equally across all water rights, no junior water right holder would get any increased water from the reduced diversion by a senior water right diverter. This preserves the priority system but also would apply the public trust doctrine and reasonable use that applies to all water rights. "The rule of [water right] priority is not absolute, nor is the Board without power to act contrary to that rule in appropriate circumstances" (El Dorado Irr. Dist. v. State Water Resources Control Bd. (2006) 142 Cal.App.4th 937, 965). To implement this alternative, the Board would need to find that absent this modification, water quality objectives would not be met (as evidenced by recent number of TUCPs).

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		Cal.App.4th 937, 967, fn. 21.) The justification proffered for the Shared Water Shortage Provision is that spreading the obligation to senior users “would be expected to help avoid TUCPs and degraded environmental conditions during drought and reduce concentrating water-supply related impacts on a smaller number of users.” (Draft Staff Report, at 7.24-50.) Neither justification warrants deviation from the rules of water right priority.	
243	16	As an initial matter, there is no analysis in the Draft Staff Report to support the Board’s expectation that shifting the obligation to senior users would help avoid TUCPs or degraded environmental conditions during drought. In fact, the Draft Staff Report states that shifting the obligation to senior users would, in turn, decrease flows in “stream reaches below diversions [by junior users] that would have been fully curtailed” if not for the shifting of responsibility to senior water users under the Shared Water Shortage Provision. (Draft Staff Report, at 7.24-50.) To the extent the Board equates decreased flows with degraded environmental conditions (a precept of the Board’s Draft Staff Report), the Shared Water Shortage Provision will not help avoid degraded environmental conditions, it will only change the location where those degraded conditions occur. Similarly, the Shared Water Shortage Provision will not help avoid TUCPs, it will only change the parties that need to file TUCPs by adding senior water users to the list of those that may need temporary relief from water quality obligations. It should be noted that the Board has the authority to deny TUCPs filed by the Projects to ensure that water quality objectives are met.	Neither drought alternative proposes to shift the flow requirements from junior to seniors. Both alternatives propose to expand the number of diverters obligated to meet the flow requirements. This would not alleviate the obligation of junior users to meet the same requirements. As noted in the Section 7.24.6.2, Shared Water Shortage Provision (Alternative 5b), of the 2023 draft Staff Report, Alternative 5b would reduce the concentration of water supply-related impacts to a small number of users, and instead distribute those impacts to a larger number of users, therefore reducing the likelihood of TUCPs.
243	17	Furthermore, the Board’s expectation that the Shared Water Shortage Provision will “reduce concentrating water-supply related impacts on a smaller number of users” is not a justification for deviating from the rules of priority; rather, it is simply a description of the outcome of shifting the obligation to meet water quality objectives from junior users to senior users. As the Third District Court of Appeal held in El Dorado Irrigation Dist., “the Board’s interest in protecting the projects’ stored water for export does not trump the rule of priority.” (El Dorado Irrigation Dist., supra, 142 Cal.App.4th at 969.) Simply put, the Board’s desire to protect a junior user’s stored water or access to natural flow at the expense of senior users is not a justification for violating priority.	Please see the response to comment 243-15. Water released from storage is not available to downstream users. (See e.g. North Kern Water Storage Dist. v. Kern Delta Water Dist. (2007) 147 Cal.App.4th 555, 570 [When the stored water is released for use, it is not part of the river’s natural flow and redirection of this water does not count toward the appropriator’s current allocation of river water]; see also State Water Resources Control Bd. Cases (2006) 136 Cal.App.4th 674, 737–745 [a riparian or appropriator has no legally protected interest in other appropriators’ stored water or in the continuation of releases of stored water].)

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		Finally, the Draft Staff Report is misleading insofar as it asserts that the Shared Water Shortage Provision will have limited impact because it will only require deviation from the rules of water right priority during times of shortage. “[P]riority of right is significant only when the natural or abandoned flows in a watercourse are insufficient to supply all demands being made on the watercourse at a particular time[;] [o]bviously, when flows are of sufficient abundance that every water user can fulfill his or her needs, the rule of priority does not matter.” (El Dorado Irrigation Dist., supra, 142 Cal.App.4th at 962.)	
243	18	9. The Board Should Provide Clarification on the Inclusion of Tribal Beneficial Uses The Draft Staff Report proposes three Tribal Beneficial Uses (TBUs), but fails to clearly articulate whether TBUs are proposed to be added to the Bay-Delta Plan as part of this current update, or at some later time. Clarification on the proposed action is needed and hereby requested. Additionally, clarification of the following sentence is also needed: “The CEQA component of the Staff Report for the Bay-Delta Plan update may be used to support flow-related actions that support TBUs and water quality actions in a programmatic way.” (Draft Staff Report, 11-12). Please provide additional information on the stated flow-related actions, as well as an explanation of how the CEQA component of the Staff Report would cover TBUs.	Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for responses to comments related to Tribal Beneficial Uses. The revised proposed Plan amendments incorporate Tribal Beneficial Uses, 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 into the Bay-Delta Plan update and implementation processes. The reasonable protection of CUL as it relates to the tribes’ cultural and spiritual connection to salmon overlaps with the reasonable protection of the aquatic life beneficial uses identified in the Bay-Delta Plan or designated in the applicable Regional Water Boards’ water quality control plans, including EST, COLD, WARM, MIGR, SPWN, WILD, and RARE (also referred to as fish and wildlife beneficial uses), forming the basis for implementation actions related to flow, water project operations, and physical habitat restoration. Accordingly, the objectives needed to protect both categories of beneficial uses overlap and are addressed by the objectives and program of implementation in the revised proposed Plan amendments. In addition, other tribal uses and activities encompassed within the CUL use may be directly supported by flow actions, including for example, navigation, gathering of natural resources, and immersion ceremonies. In the future, additional flow-based water quality objectives or site-specific water right requirements may be considered if needed to protect other tribal uses and activities encompassed within the CUL use.

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			Please see Section 13.7.2, Environmental Analysis of CUL Tribal Beneficial Use Designation, for a discussion of the environmental analysis and flow-based actions related to the designation of CUL.
243	19	10. The Board Should Provide Additional Information on When, How, and by What Means it Decided to Implement the 2018 Bay-Delta Plan Amendments by Regulation The Draft Staff Report states: “The Board is in the process of implementing those updates [i.e., the 2018 Phase 1 updates to the Bay-Delta Plan] through a regulation.” (Draft Staff Report, at 9-11.) No public decision has been made by the Board to implement the 2018 Bay-Delta Plan by regulation. Please provide additional information on when, how, and by what means the Board decided to implement the 2018 Bay-Delta Plan amendments by regulation.	The Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, released December 12, 2018, identified State Water Board adoption of regulations as one potential avenue for implementing the 2018 Bay-Delta Plan update. (See 2018 Bay Delta Plan.) As discussed in the 2018 Bay-Delta Plan, adopting a regulation falls squarely within the State Water Board’s water rights and water quality authorities. A notice of preparation of the proposed regulation to implement the Phase 1 updates to the Bay-Delta Plan was distributed on July 15, 2022, and a revised version of the notice was released on August 8, 2022. Pursuant to the Administrative Procedure Act (California Government Code, section 11340 et seq.), there will be opportunities for public comment on draft regulatory text as well as the Draft Environmental Impact Report to be prepared alongside the regulation.
243	20	11. The Board Should Not Reject Extended Export Constraint Alternative (Alternative 4c) The Draft Staff Report states, “a significant portion of the San Joaquin River is diverted at the [Projects’] export facilities, resulting in unnatural flow patterns and inhospitable conditions for native fish species in the Delta and migrating in the San Joaquin River. This modular alternative would be expected to provide for improved, more natural flow patterns to benefit native species. However, this alternative would also result in significant additional water supply impacts that may not be reasonable.” (Draft Staff Report, 7.2-11.) The Board should not dismiss this export constraint alternative simply because it will have significant additional water supply impacts on the Projects. If the alternative to imposing such export restrictions is requiring increased flows, including from more senior water users in the San Joaquin River watershed, then the Board can and should impose additional export restraints to mitigate for the unnatural flow patterns caused by	Please see 2023 draft Staff Report Section 7.2, Description of Alternatives, and Common Response 7.24, Alternatives Analysis, on modular alternatives. Also, see Common Response 1.2, Water Quality Control Planning Process, on the relationship to the Lower San Joaquin Update and Common Response 1.3, Revised Proposed Plan Amendments, which states that the revised proposed Plan amendments do not modify any flow objectives promulgated for the San Joaquin tributaries in the 2018 Plan Update. Regarding the State Water Board’s February 2024 resolution reapproving the Biological Goals for the lower San Joaquin River, failure to achieve these goals, or progress on them, does not compel any specified State Water Board action. Rather, biological goals provide one tool for the State Water Board to measure progress toward achieving water quality objectives.

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		the Projects' facilities that create inhospitable conditions for native San Joaquin River fish species. The Board has adopted Biological Goals that will effectively require water supply commitments from users on the Stanislaus, Tuolumne, and Merced Rivers to mitigate for the unnatural flow patterns and inhospitable conditions created by the Projects' operations. The responsibility for mitigating the Projects' impact should not be shifted to upstream users on the Stanislaus, Tuolumne, and Merced Rivers through a combination of Biological Goals and the Board's unwillingness to impose export constraints on the Projects.	
244	1	As a 5th generation Californian, registered Civil Engineer, and a municipal employee representing the City of Redding Water Utility, I encourage you and your administration to reject the "unimpaired flow" approach for managing the Sacramento River watershed. During the December 11th, 2023 public hearing, the Secretary for California's Natural Resources Agency, Wade Crowfoot, gave an excellent synopsis of the history of this process and where we are today with "voluntary agreement" negotiations. You must support the Agreements to Support Healthy Rivers and Landscapes and the associated benefits for communities, farms, businesses, the environment, and the public. Unimpaired flows are supposed to more closely match the natural hydrographic conditions but the problem is we don't have a natural system anymore. We haven't had a natural system for over 150 years and there is no eliminating that fact. We have a highly modified/engineered river system with levees and rip-rap, invasive species, and have been disconnected the river from the floodplains. We actively created the current system and we need to actively recreate the ecosystem with habitat, flow, food, and floodplains. We specifically urge the State Water Board to identify the Agreements to Support Healthy Rivers and Landscapes alternative in its final Staff Report and forthcoming program of implementation as the State Water Board's best pathway for updating the Sacramento/Delta portions of the Bay-Delta Plan.	Please see Section 2.1.1, Natural and Unimpaired Flow, of the 2023 draft Staff Report, on the distinction between natural and unimpaired flows and the use of unimpaired flows for the proposed Plan amendments. 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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244	2	We remain concerned with the other alternatives, the State Water Board's proposal for a 55 percent unimpaired flow into the Delta, which would redirect significant amounts of water away from the Sacramento River Basin into the Delta. This simplistic approach would go beyond what is needed for environmental needs and would result in a substantial amount of water being put out to the ocean without any benefit. This in turn would be devastating to both the economy and the environment in the counties we represent, adversely affecting the availability of critical water for cities and rural communities (many of which are disadvantaged), farms, wildlife refuges for birds and many other species, salmon and other fisheries and recreation. We support a healthy Delta, but the unimpaired flow approach proposed by the State Water Board will redirect impacts upstream into the Sacramento River Basin and will likely fail to achieve its goal of protecting Delta 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. Also see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, of the Staff Report for an analysis of the benefits of the 55 scenario.
244	3	The City of Redding is a disadvantaged community, as such, Water affordability is critical. Please know that any reduction in water supply will increase costs for the Utility therefore increasing the water rates paid by our customers.	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 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 pathway 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 for a discussion of potential funding sources for municipal water conservation and alternative water supplies.

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244	4	We need a holistic approach to address all the stages of the Salmon life-cycle- not just releasing more cold/sterile/unproductive water down the river, including Spawning & Egg Incubation, Fry Rearing, Juvenile Rearing & outmigration, Ocean Rearing, Adult Upstream Migration, and Adult Holding. We also need to address other critical life-stages for salmon. Invasive species such as striped bass are devastating the out-migrating juvenile fish. Ocean conditions and ocean harvesting is impacting the ability of the adult salmon to return and successfully spawn.	Please see Staff Report Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, and Chapter 4, Other Aquatic Ecosystem Stressors, for a discussion of the flow and non-flow stressors to salmon and the benefits of the regulatory pathway. Please also see Common Response 3.1, Fish Protection, on flow benefit analysis and Common Response 1.2, Water Quality Control Planning Process, on reasonable protection of fish and wildlife.
244	5	The potential impacts to this region are not abstract, we experienced dry year impacts on the westside of the region in 2022 like we would see if an unimpaired flow approach is adopted by the State Water Board. For context, 600 square miles of farmland was fallow in 2022, which is more than 370,000 acres of farmland, nearly 80% of the total farmland in this area. A report by the University of California Davis estimated that there was \$1.3 billion in lost economic value, 14,300 jobs lost, \$732 million in lost labor income, and devastated supply chains. (See the October 21, 2022 Congressional Record, Recognizing the University of California, Davis Report on “Drought Ravaging California’s Sacramento Valley.”) To see these impacts, we encourage you to watch a short film on the devastating drought impacts in Colusa County in 2022. The film can be watched here.	The 2023 draft Staff Report Section 7.4, Agriculture and Forest Resources, acknowledges that reductions in Sacramento/Delta supply to agriculture could result in conversion of farmland to non-agricultural use. Chapter 8, Economic Analysis and Other Considerations, evaluates the agricultural water supply economic effects of the flow scenarios. The 2023 draft Staff Report examines the reductions in Sacramento/Delta supply under dry year conditions, and the analysis as modeled determined that acreage may be reduced by approximately 144,000 acres within the entire Sacramento/Delta under the 55 scenario, far less than the 1-year occurrence cited by the commenter. Although this would be a potentially significant impact, it is likely to be much less than the reported impact that the Redding area experienced in 2022. In addition, the project has been revised. Please see Staff Report Chapter 13, Revised Proposed Plan Amendments, 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, the regulatory pathway 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.
244	6	More specifically, the “unimpaired flow” approach will have significant effects in our region: It will negatively impact the critical cold-water pool behind Shasta Dam. Water temperature in the Sacramento River is directly dependent on the cold-water pool. If End of May storage	Effects of changes in hydrology on water temperatures in the Sacramento River were simulated with the HEC-5Q model. These changes in temperature and temperature effects on fish were evaluated in the Staff Report. Please see Common Response 7.6.2, Aquatic Biological

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		is reduced- summer/fall water temperatures in the river will be higher and Salmon egg incubation will be negatively affected.	Resources and Cold Water Habitat, and Common Response 1.3, Revised Proposed Plan Amendments, for discussion on implementation of the cold water habitat objective.
244	7	The unimpaired flows below Keswick Dam as 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 fall. How will that help water quality and HABs in the Delta?	2023 draft Staff Report Section 7.12.1.3, Impact Analysis, presents an impact analysis that 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. 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.
244	8	Evacuate critical water in storage and prevent the diversion of water throughout our region, which will significantly affect precious water supplies for all these purposes. This is particularly true in dry years like we have seen this decade, where water available in storage is critical to helping Californians get through these challenging times. In other words, we will go backward under the State Water Board approach—not forward—in our efforts to better prepare for the next drought in California.	The underlying fundamental purpose of the Sacramento/Delta update to the Bay-Delta Plan is restoring flows for the reasonable protection of fish and wildlife, which is especially critical during droughts. As discussed in Section 6.3.2, Reservoir Storage and Elevation, restoring flows could lead to reduced storage levels in some reservoirs. 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 flexibility to tailor 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.
244	9	Less surface water available will lead to significant additional groundwater pumping throughout the region, which will make our efforts to implement sustainable groundwater management envisioned under the Sustainable Groundwater Management Act	The Staff Report acknowledges potentially significant impacts to groundwater levels (Impact GW-b) and groundwater quality (Impacts GW-a,f), as a result of local responses to changes in hydrology or Sacramento/Delta water supplies; However, as

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		(SGMA) more difficult. In our region, the groundwater resources are currently sustainable and we will continue to work hard with other local agencies to assure that our precious groundwater resources remain sustainable into the future. The State Water Board proposal will make our collective efforts to achieve groundwater sustainability more difficult if not impossible.	mentioned in the Staff Report, public agencies have been on notice since 2012 regarding State Water Board's intention to update the Bay-Delta Plan. Such notification should have informed groundwater sustainability agencies' groundwater planning efforts and management assumptions regarding the amount of surface water supplies, in excess of environmental requirements, that may be available for SGMA implementation. In addition, Groundwater Sustainability Plans (GSPs) must be regularly updated and consider regulatory requirements on water resource related plan(s) that would interact with the GSP (Wat. Code § 10727.2(g)). Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more discussion on how the Sacramento/Delta update to the Bay Delta plan aligns with the implementation of SGMA.
244	10	In sum, we encourage your administration to abandon the flawed "unimpaired flow" approach. Instead, we recommend that you pursue an integrated approach in the Agreements to Support Healthy Rivers and Landscapes where water is used for a specific environmental purpose that is compatible with important flood protection and other water uses in the region. We believe that this 21st century approach to water management will better serve the Sacramento River Basin and more effectively protect Delta water quality. We encourage your administration to embrace an approach that achieves your water quality goals for the Delta without redirecting impacts to the Sacramento River Basin.	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.
245	1	Dear Board Members of the SWRCB, Please do the right thing by Salmon potential Population in the future!!!!!!!!!!!! Please set the correct flow and temperature protections for the Fall-run Chinook!!!!	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.
245	2	I am a sport fisherman and last season we were not allowed to fish for Salmon which I understand why. The economic effect on many businesses that are supported by sport salmon fisherman is far outweighs any economic gain to Agriculture that restricting flows for Salmon so agriculture has more water which gives	Section 8.6.1, Recreational and Commercial Fisheries, of the 2023 draft Staff Report (Section 8.6.2, Commercial Fisheries, and Section 8.6.3, Recreational Fishing, in the final Staff Report) discusses that the Sacramento/Delta update to the Bay-Delta Plan would be expected to result in positive economic effects

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		agriculture interest more economic gain. According to the Golden State Salmon Association " the Salmon industry is valued at \$1.4 Billion. Going salmon fishing and catching a salmon or even two I think contributes enormously to the wellbeing economically of our society in the billions and billions of dollars .	related to commercial and recreational sport fisheries. 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 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 Staff Report's conclusions.
245	3	There is also a emotional price to pay for no sport fishing of Salmon which for me personally was pretty high. I love catching salmon. My wife who died of cancer recently loved catching salmon which we ate and gave to friends. After we found out she had stage 4 cancer and had 3-6 months to live we decided we would fish as much as her chemo would allow. She lived 2 1/2 years we caught over a hundred salmon mostly in Soquel Hole. I can't begin to describe the joy my dying wife got from catching a Salmon. I think it helped her stay alive as long as she did. The thrill of catching salmon for so many sport fisher men and sport fisherwoman is something that has a huge positive emotional effect on thousands of individuals who deal with stress on a daily basis. Most sport fishermen and woman are individuals who work hard and make huge contribute to the good off all through their efforts. Individuals who have less stress and have a better feeling about their lives are more productive people in the work place. Fishing for Salmon I guaranty you makes you as a worker more productive. Ask yourself what is it you do in your personal lives which removes the stress of being a productive person in society which I am sure all of you do on the Board. Imagine each one of you has that thing or things removed from your life that removes	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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		stress for you. How productive are you going to be? Well for my wife, Salmon fishing I think kept her alive and for me when were were out fishing I could forget the awful terrible curse which had been given to my wife. So I feel the emotional health of those who are not able to fish for salmon is a huge cost to our society. It far out weighs the economic cost to businesses which salmon fishing support. Thank you for reading this letter. If you have never gone salmon fishing and caught a King Salmon I suggest you do before there are no more salmon left.	
246	1	Specific Comments - Technical Modeling. The Staff's Report and supporting analyses does not provide adequate or representative information concerning the baseline or alternatives' hydrologic effects. The modeling baseline is inconsistent between Staff's analytical tools, and Staff's rationale that tile modeling and results should be used/or comparative trending conclusions (not absolute) is not sufficient. Concerning the San Joaquin River (SJR) input (inflow) to the SacWAM analyses, only one set of hydrologic conditions (setting) is incorporated, and that set is considered flawed. Staff has incorporated a Cal Sim 3 "baseline" data set for Vernalis that equates to an average annual flow of approximately 2,662 TAF and will manifest into a certain hydraulic/hydrological consequences throughout the Delta and SacWAM domain, including Delta Outflow, internal Delta circulation and Exports. San Joaquin River flow is an important flow component that potentially affects CVP/SWP exports. Staffs separate, but tangentially integrated WSE-VA modeling incorporates a different baseline (CalSim II based) upon which incremental changes at Vernalis due to differing SJR flow operations is estimated. This CalSim II based result at Vernalis equates to an average annual flow of approximately 3,130 TAF, which would manifest a different set of hydraulic/hydrologic consequences throughout the SacWAM domain, and/or provide a baseline in WSE-VA different than used by Staff. This circumstance will cause an inconsistent and misrepresentative baseline in one or both models.	Please see Chapter 6.2.1, Baseline Assumptions, of the Staff Report for a description of the baseline modeling assumptions including the San Joaquin inflow at Vernalis. Additionally, please see Common Response 6.2, Baseline and No Project Alternative, for discussion of Baseline modeling. The WSE-VA model is not used for the modeling of the SacWAM baseline. The WSE-VA model is only used for the Staff Report in Chapter 9, Proposed Voluntary Agreements, to evaluate how the Tuolumne VA and 2018 LSJR flow objectives could increase outflow from LSJR tributaries and, ultimately, the Delta. The WSE is used to estimate the incremental changes in flow that would be expected with implementation of the Tuolumne VA proposal and LSJR flow objectives. As noted in Chapter 9, Proposed Voluntary Agreements, of the Staff Report, the Tuolumne River VA is being considered as part of a separate State Water Board process with its own associated environmental analysis.

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246	2	Staff's development and use of a "bias correction" to certain hydrologic results to account for "uncertainty" between SacWAM and Calsim models "not fully understood at the time" is a red flag of concern for the adequacy of Staff Report results. Staff admits that the baseline hydrology between the models does not align (and thus we conclude the operations within the models likely do not align), they have introduced a "bias adjustment" to SacWAM results. This circumstance creates concern that the SacWAM results concerning exports are not representative of a simulation of baseline or the alternatives.	The unimpaired hydrology used in SacWAM represents the best available reconstruction of historical hydrology in the watershed at the time of the analysis, and SacWAM was and remains the best available tool to evaluate the effects of the alternatives on changes in hydrology and water supply. The bias correction of incremental analysis of CalSim II scenarios was included to account for the uncertainty in changes in outflow under the VA scenario and is included only in the analysis of benefits associated with that alternative. As described in Section G3a.2.5.9, Delta Outflow Postprocessing, one source of this uncertainty was the incremental change in Delta outflow resulting in changes to Biological Opinions governing operations of the State Water Project and Central Valley Project. At the time of the analysis, the only other model available to evaluate this incremental effect was CalSim II, so a comparison of these two models was used to assess the magnitude of this uncertainty. Please see Chapter 9.5.2, VA Modeling Approach, and Appendix G3a, Sacramento Water Allocation Model Methods and Results for the Proposed Voluntary Agreements, for more information on the VA modeling approach.
246	3	Staff's use of its WSE-VA model does not adequately depict alternative versions of SJR tributary operations under underlying assumptions of outcome to future SJR flow requirements. Within the applicable scenarios of Staff's analyses such mis- depictions will fault the inclusion of the SJR contribution to the scenarios. And, an adequate range of alternative outcomes for the "proposed Plan amendments" has not been formulated by not including potential changed conditions on the San Joaquin River in those scenarios. Concerning the WSE-V A model, numerous shortcomings to the model have already been identified during Phase 1 proceedings. Our comment is that the Staffs modeling of incremental SJR flows is incorrect, albeit Staff has not adequately modeled SJR flow throughout its modeling platform. Results have been provided for a range of assumed SJR conditions and contributions within the VA scenario assessments. However, with the Xo/o scenarios for the	The analysis of the unimpaired flow scenarios is intended to identify the impacts, relative to baseline conditions, attributable to implementation of unimpaired flow requirements in the Sacramento watershed. If inflow from the San Joaquin Watershed is not consistent between the baseline and the unimpaired flow scenarios it could mask impacts attributable to implementation of the Sacramento requirements. The impacts caused by increased flow requirements on the Lower San Joaquin River tributaries from the 2018 Bay Delta Plan updates were fully analyzed in the 2018 SED. Cumulative effects of the 2018 updates in conjunction with the proposed Plan amendments are discussed in Chapter 7.23, Cumulative Impacts Analysis. Please see Common Response 7.24, Alternatives Analysis, for further discussion of the alternatives used in the analysis. Please see Common Response 1.2, Water Quality Control

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		Sacramento/Delta domain only the baseline SJR condition (albeit potential wrong) has been provided. This shortcoming shorts the depiction of the outcomes from alternative versions of the X% scenarios by the amount of potential contributions from the SJR under differing assumptions of implementation of Phase 1.	Planning Process, regarding the relationship between the proposed Plan amendments and the Lower San Joaquin River updates to the Bay-Delta Plan.
246	4	Staff's method of modeling Delta salinity/flow within the alternatives is inadequate and flawed. Staff reports that the Vernalis flow data set does not change among baselines or alternative scenarios, and that the DSM2 and Delta flow relationships are not changed among alternatives in the context of Vernalis flow mu/ quality. Results for interior Delta conditions and Delta Outflow would be different than that presented if full integration of changed Vernalis flows was integrated within scenario analyses. Staffs post-analysis adjustment to SacWAM (without SJR actions) results is not adequate to illustrate all of the hydrologic/hydraulic effects of changes to SJR flows. The assumed incremental changed flows at Vernalis will manifest throughout the Delta, not just at selected points of interest or compliance. The estimated incremental changes in Vernal is flow need to be implemented throughout the modeling tools, which would likely require additional protocols in SacWAM to recognize "protected" flow of the San Joaquin River.	The analysis is not intended to imply that Vernalis flow does not affect Delta conditions. On the contrary, the decision to keep Vernalis flow and salinity constant between the baseline and the alternative scenarios is meant to avoid conflating the effects caused by varying flow and salinity at Vernalis with effects caused by changing flow requirements in the Sacramento watershed. Including variable flows from the San Joaquin River would only make it more difficult to isolate the effects attributable to the actions in the Sacramento watershed. The potential effects of changing flow from the San Joaquin River related to the 2018 Bay-Delta Plan updates for LSJR instream flow requirements in conjunction with the proposed Plan amendments are discussed in Section 7.23, Cumulative Impacts Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes. Further, the potential effects of changing flow from the San Joaquin River related to the Voluntary Agreements are analyzed in Chapter 9, Proposed Voluntary Agreements.
246	5	Staff's result for CVP SOD deliveries among customer sectors must be flawed along with the depiction of total Delta Exports being flawed. Given the Staffs stated assumption that the current COA serves within the operational control assumption among the CVP and SWP for alternatives analysis, the CVP and SWP export and reservoir operation results are highly suspect, and without further explanation are wrong. The flow requirement alternatives developed by Staff result in a radical departure from the current assumptions for separable flow responsibility among the Projects. That departure would likely stem a revisit of the COA. An outcome of a required COA modification will likely change the separable operation of Project reservoirs and exports	Staff developed a reasonable set of assumptions for modeling the flow scenarios analyzed in the Staff Report. While it is possible that the Coordinated Operations Agreement (COA) would be revised in response to changes in flow requirements contained in the update to the Bay-Delta Plan, and other reservoir operators could change operations as well, it would be speculative for State Water Board staff to develop SacWAM scenarios that include broad changes to the COA. Please see Common Response 7.1, General CEQA and Approach to the Analysis, on the level and scope of the analysis.

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		and combined operations; thereby making Staffs representation of deliveries and operations flawed.	
246	6	Beyond the overarching error of Staffs representation of Project effects, the depiction of CVP customer sector deliveries for the total water within CVP exports is flawed. Even a casual comparison between CVP customer sector delivery statistics (graphs illustrated in Appendix A1) suggest that Staff does not correctly incorporate in its modeling current water delivery allocation forecasting procedures or correct temporal delivery assumptions for annually allocated water. Such errors are apparent when comparing CVP SOD Exchange deliveries and CVP SOD Refuge deliveries. The percentage deficiencies for these two sectors should be close to equal. Further, Staff has not performed comprehensive modeling to inform the reviewer if shortages to the SOD Exchange are in fact available from Friant as suggested in the text.	The figures and tables in Appendix A1, Sacramento Water Allocation Model Methods and Results, for CVP SOD Refuge and Exchange contractors show the deliveries to contractors summarized by water year (October–September), which is consistent with the way results are presented throughout the draft Staff Report. CVP contract volumes are by calendar year. Refuge monthly water demand is higher than Exchange contractor demand in the winter and spring months before the final allocation in the model occurs on March 1st. Therefore, there are water years when the annual percent delivery differs between refuge and exchange contractors, which explains why the figures and tables in Appendix A1 for CVP SOD Refuge and Exchange contractors do not show equal deficiency. Additionally, the figures and tables in Appendix A1 do not include the postprocessing step of shifting water from CVP water service contractors to exchange and refuge contractors. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations for a description of this process, which was included in all of the results used in the impact analysis in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis.
247	1	INTRODUCTION AND SUMMARY OF COMMENTS OF SOLANO IRRIGATION DISTRICT TO DRAFT WATER QUALITY CONTROL PLAN CEQA/SED. Often comments to purported CEQA/SED proceedings, to proceedings related to Amendments of Water Quality Control Plans pursuant to the Porter Cologne Act are so detailed and complex that the SWRCB members simply defer to Staff and other Influencers rather than examine the merits of the comments. Legalistic comments create an atmosphere of inevitability of legal challenges and elected or appointed decision makers seem to often adopt an attitude that "the decisions are in the court's hands" and, therefore, comments are to be ignored. Additionally, appointed citizens to lofty positions such as the SWRCB often approach their role as one that permits	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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		adopting broad policy directions and that they are not required to consider or plan every part of the "new plan."	
247	2	The Board's own orders and findings require different Putah Creek streamflow releases. An evidentiary hearing and new findings must occur before a conflicting release plan of unimpaired flows can be considered for adoption. The SWRCB in 1984 adopted and prescribed after evidentiary hearings conducted with due process requirements, orders regarding the quantity of releases of water upon Putah Creek pursuant to Decision 869 in Order 81-11 and 84-7. Those release amounts are specific, and subject to rules of due process. A CEQA/SED process that does not even mention those release requirements included in Decision 869 or the effect of unimpaired in-flow amount releases being substituted for the adopted requirements or the environmental effects or alternatives to the new proposed releases, violates CEQA/SED rules and logic, violates legal requirements of due process and jurisdiction. Further, there is no provision of Decision 869 allowing the Board to appropriate Putah Creek flows or Lake Berryessa storage for other uses or purposes by reservation of jurisdiction [Footnote 1 - see comment 4]. The Board has to reopen Decision 869 authorizing the Solano Project and satisfy all procedural requirements if it wishes to adopt a plan for different Project releases and the Board must itself conduct a separate CEQA/SED process in regard to the requirements for that watershed. It has not convened such an evidentiary hearing.	All water rights are subject to the common law principle, codified in California Constitution, article X, section 2, that prohibits "waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water." What constitutes a waste is relative, based on competing needs, and the determination may change as conditions change. The State Water Board's broad regulatory authority allows it to control and condition water use, consistent with public interest, including the regulation of water quality and prevention of waste in a regulation. Water Code section 275 directs the State Water Board to take all appropriate proceedings or actions to prevent waste or violations of the reasonable use standard. In addition, all water rights are subject to the public trust doctrine. In regulating water use, the state must consider the public trust and protect the public trust when feasible. Even after an appropriation has been approved, the public trust imposes a duty of continuing supervision. In applying the public trust doctrine, the State Water Board has the power to reconsider past water allocations even if the Board considered public trust impacts in its original water allocation decision. Standard permit terms in California Code of Regulations, title 23, section 780 articulate the continuing authority of the Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste and unreasonable use. The term goes on to state that "continuing authority may be exercised by imposing specific requirements over and above those contained in the permit" and "no action will be taken pursuant to this paragraph unless" the board makes specific findings after notice and opportunity for hearing. (Cal. Code Regs., tit. 23, § 780, subd. (a) [italics added].) Similarly, subdivision (b) states that the permit may be modified after notice and opportunity for hearing, if necessary to meet water quality objectives in water quality control plans, and "[n]o action will be taken pursuant to this paragraph unless" the board makes certain findings after notice and opportunity for hearing. (Id., subd. (b) [italics added].) These standard permit terms and the conditions contained within apply to the permit terms

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			themselves. If the Board were to reopen the permit pursuant to these permit conditions it would undoubtedly hold a hearing for the specific issues raised in the matter. But the standard permit terms and conditions cannot be read to constrain the Board's regulatory authority that exists independent of the permit terms and conditions, including the authority to adopt regulations. The State Water Board, under its authority to protect water quality under the federal Clean Water Act and the state Porter-Cologne Act, is undertaking water quality control planning. As explained in Section 5.2.3, Regulations and Adjudicative Proceedings, the State Water Board conducts both quasi-legislative and quasi-judicial administrative proceedings, and different rules apply depending on the type of action pending before the State Water Board. In the past, the State Water Board has conducted adjudicative water right hearings to implement the Bay-Delta Plan. In a quasi-adjudicative proceeding, the procedural rules are similar to a court in that testimony is submitted and subject to cross-examination and rebuttal, evidentiary motions may be made, and ex parte communications with the decision-maker are prohibited. This type of hearing is best suited for cases with a discreet set of issues and limited individual parties. Quasi-legislative proceedings, including hearings for the adoption or amendment of regulations, water quality control plans or state policy for water quality control, and hearings to gather information to assist the State Water Board in formulating policy for future action, are not adjudicative proceedings and are subject to different procedures. (See Cal. Code Regs., tit. 23, § 649 et. seq.) A rulemaking proceeding is most effective when a large number of parties will be subject to the regulation. The process can be time and resource intensive, but the procedures are less structured and better tailored for actions that require a comprehensive approach. The basin planning process is a rulemaking proceeding. Both types of proceedings provide adequate due process. The State Water Board possesses legal authority to adopt regulations declaring that a particular use of water under given circumstances is unreasonable without the requirement to conduct a hearing as to any individual water right. (Stanford Vina Ranch Irrigation Co. v. State (2020) 50 Cal.App.5th 976, 1004 [citing Light v. SWRC State Water Resources Control Bd.

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			(2014) 226 Cal.App.4th 1463, 1484-85] [“Stanford Vina”].) The State Water Board implements the Bay-Delta Plan objectives using its quasi-legislative or adjudicative authorities involving water rights and water quality. The State Water Board may implement the objectives by adopting regulations, conducting adjudicative proceedings, or both, that take into consideration the requirements of the public trust doctrine and the California Constitution, article X, section 2. The State Water Board will also continue, as necessary and appropriate, to use its Clean Water Act section 401 water quality certification authority, waste discharge requirements, and other water quality and water rights actions to implement objectives in the Plan. While the Board may consider implementation procedures other than, or in addition to curtailment regulations, it is likely that the State Water Board will develop and adopt regulations necessary to implement portions of the plan updates, including regulations to administer the water right priority system with applicable Bay-Delta Plan requirements and commitments. In addition, both the Bay-Delta planning process and any subsequent regulation development provides notice and hearing. Note that the planning process does include general consideration of the factors mentioned in standard water right permit terms and conditions, including California Constitution Article 10, section 2, public interest and uses protected by the public trust.
247	3	Calling Unimpaired flow goals a "Plan" in a Substitute Environmental Document process and Amendment of a Water Quality Control Plan process does not make it a "plan" unless it explains what the SWRCB Plan is. The SWRCB Board Members should ask "Where is the description of the remainder of the SWRCB Plan?" Are urban residents to have their residential water use reduced by 25% to 25%? If the SWRCB is going to remake flows conditions for use of water and dictate use of storage space under the Solano Project and in Putah Creek, where will the existing residences of Vacaville, Fairfield, Vallejo, Suisun City and Dixon obtain water for their residential use? Persons wishing new connections for new employers (a pharmaceutical center in Vacaville?) or new	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of factors under Water Code section 13142.

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		low-income housing are to be told: "No"? How much water will not be available in dry cycles which affect both local supplies and State water projects deliveries to those existing residences? What is the SWRCB plan regarding food produced? Will citizens be trained to eat 20% less tomatoes, milk, and cheese? Section 13142 of the Water Code requires that a water quality control plan "be consistent with...." "Providing a decent home and suitable living environment for every Californian." If 25%-35% or more of the historically available Solano Project water is to be devoted to environmental uses, where does the SWRCB plan envision that replacement housing will be located or even how existing housing uses will be maintained? This looks like a plan of a building moratorium. Are building permit issuances to be frozen? The SWRCB has to state its plan!	
247	4	[Footnote 1] The Board's own regulations require that the continuing jurisdiction of the Board to consider permits not be exercised to deprive water right holders of storage already committed unless the permit holder agrees to the bypass or release of waters. The beneficiaries and holders of the rights to water and use of the storage capacity for the benefit of Solano County have not consented and will not consent. Title 23, § 784 states in part: "(B) Notwithstanding subsection (a) of this section, after a permit has been issued and construction has commenced or substantial financial commitment for construction has been undertaken by the permittee, the Board will not require a release or bypass of water authorized to be appropriated by such permit unless the permittee agrees to such bypass or release or unless the Board at the time the permit was issued expressly reserved jurisdiction to require such bypass or release. (c) Before requiring releases of water pursuant to subsection (a) of this section over the objection of the applicant or permittee, the Board will hold hearing and make findings with respect thereto...." The beneficiaries and holders of the right object. The SWRCB cannot adopt a "plan" to expropriate the right to storage and use of the storage facility invested in by the citizens of Solano County and then suggest that it will comply with 23 C.C.R. 784 later by holding a hearing and receiving competent evidence.	Please refer to the response to comment 247-2.

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247	5	Imposition of a carryover storage requirement violates 23 C.C.R. 794 by taking storage rights and yield for non-Solano Project beneficiaries. If carryover storage of 900,000 acre feet is required by the Plan, how many acres of food producing lands must be purchased and idled? Urban consumers and users of surface water for irrigation will be significantly impacted, be required to reduce water use immediately yet no explanation and direction as to how to carry out the "rest of the new Plan" is included in the Draft Plan or CEQA/ SED study nor is any explanation provided as to how the "new balance of resources" will be achieved. The SWRCB Board Members are invited by the SWRCB staff in this proposed "plan" to, like Hamas jihadists on October 7, to act to affirm a type of "religious tenet" ("the environmental uses require more water"), without a full consideration of the alternatives or consequences of adopting "the plan". We suggest the Board Members and staff anticipate and avoid the consequences of an ill-conceived plan. This is not just counter to law, but embarrassingly illogical. Board members should know what the "Plan" really is and insist that the full plan be explained.	Please refer to the response to comment 247-2. Water supply, including supplies from the Sacramento/Delta watershed is evaluated extensively throughout the Staff Report. 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). The following sections in Chapter 6 provide further detail on each of the regions and uses. Chapter 6 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. Note also that model results are presented as worst case scenarios that do not utilize flexibility in the Plan for adaptive implementation and local cooperative solutions. Provisions for adaptive implementation of the numeric inflow requirements are provided to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat and inflow-based Delta outflow requirements. The environmental analyses evaluate a complete range of impacts in the event that water users do not utilize adaptive implementation, as well as the potential impacts from implementation of adaptive implementation. A full range of flow scenarios with cold water storage targets are analyzed in Section 7.3, Aesthetics, through Section 7.20, Utilities and Service Systems, as well as physical habitat restoration and other ecosystem projects that may be pursued in Section 7.21, Habitat Restoration and Other Ecosystem Projects. Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, provides a detailed description of the cold water habitat objective implementation.

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			Please see also Common Response 1.3, Revised Proposed Plan Amendments, regarding the description of the regulatory pathway.
247	6	Taking water from existing users requires that the "rest of the Plan" be described. Water right priorities cannot be charged. The CEQA/SED study fails to meet legal requirements principally because adoption of a "Master Plan" in a CEQA process does not exempt or excuse the authors from the duty of outlining the environmental impacts and consequences of that Plan and considering alternatives. Repeatedly in the Executive Summary alternatives are ignored by the phrases that the alternative does not meet the "purposes and needs" of the Project. The assumption is more that restoration of natural flows is necessary. Contending that "significant impacts" need only be described, quantified and perhaps mitigation adopted in later implementation processes and later specific CEQA/SED proceedings for the implementation stage of the Basin Plan is counter to law. The local interests cannot be assigned that responsibility. The Porter Cologne Basin Plan requirements and CEQA/SED requirements are that the SWRCB Board Members themselves review and consider impacts and perhaps adopt alternatives or mitigation measures which become the Plan despite the SWRCB staffs apparent direction that the Plan need not be detailed or explained how and who among existing water users will be denied water is counter to the law. The SWRCB is required to consider and describe the Plan details, when setting use of California water upon a new track with little understanding of impacts or alternatives. It is counter to law to omit to describe "the rest of the SWRCB Plan" presuming that environmental impacts and mitigation of impacts caused by the Plan will be addressed by local interests. In order to provide fair warning of the inadequacies and misdirection of the Draft Plan and CEQA/SED what follows is a detailed description of the inadequacies and violation of established legal principles and factual inaccuracies. The Solano Irrigation District and other Member Units of the Solano Project who may join in these comments hope the density of the errors	As required by CEQA, the Staff Report outlines environmental impacts associated with the project in Chapter 7, Environmental Analysis, Chapter 9, Proposed Voluntary Agreements, and Chapter 13, Revised Proposed Plan Amendments. Additionally, the Staff Report does consider alternatives and also considers a voluntary agreement pathway. The full quote referenced by the commenter from Chapter 1, Executive Summary, states, "After public review of this draft Staff Report, certain alternatives may be rejected for not meeting the purposes and goals of the project or as not feasible. If so, written findings would explain the reasoning in a revised Staff Report." Alternatives are not ignored in the Staff Report, but are described and analyzed in Section 7.24, Alternatives Analysis. The commenter does not indicate where in the Staff Report it is proposed that "'significant impacts' need only be described, quantified and perhaps mitigation adopted in later implementation processes and later specific CEQA/SED proceedings for the implementation stage of the Basin Plan." Instead, the Staff Report includes impact analyses which can be found in Chapter 7, Environmental Analysis, where significant impacts are described, disclosed, and associated mitigation measures are discussed. Since release of the 2023 draft Staff Report, additional detail and explanation of the revised proposed Plan amendments has been provided in Chapter 13. This includes information on the implementation methodology which describes how water right curtailments may be implemented based on water right priority and under what conditions those may occur. Please see Common Response 1.3, Revised Proposed Plan Amendments, for additional detail and discussion on the regulatory pathway, voluntary agreement pathway, and the implementation methodology. Also see Common Response 1.2, Water Quality Control Planning Process, for a discussion on State Water Board authority as it relates to water rights and the Porter-Cologne Water Quality Control Act. See Common Response 7.1, General CEQA and Approach to the Analysis, for

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		and obvious failure to comply with the law will convince the SWRCB to revise its path and course of behavior in regard to Putah Creek and the Solano Project (as well as other watercourses proposed to be subject to these documents which suffer similar defects and insufficiencies).	general CEQA issues raised by commenters. See Common Response 7.24, Alternatives Analysis, regarding the range of feasible alternatives.
247	7	WHY PUTAH CREEK MUST BE SEPARATED FROM UNIMPAIRED FLOW DOGMA. THE SWRCB PRIOR ORDERS AND DECISIONS PROMISE NO "NEW PLAN" WITHOUT QUASI-JUDICIAL HEARINGS. The SWRCB adopted and has readopted specific water-release requirements upon Putah Creek by Board order in the exercise of its quasi-judicial powers. The Board promises evidentiary hearings regarding those release schedules in the specific wording of those orders. The Board cannot adopt a Water Quality Control Plan that conflicts with the Board's own release and storage orders in regard to Lake Berryessa when it promised a due process hearing and notice in its orders before making changes. The Board must reconvene the quasi-judicial proceedings prior to adopting any new Plan or requirements which specify different releases and satisfy CEQA/SED requirements before adopting different water release requirements. In Decision 869, adopted in 1957, the Board granted the permits for the appropriation and use of water by the Solano Project beneficiaries. Paragraph 13 provided for a 15-year testing and monitoring program to determine the proper amounts of releases and schedule of releases and continuing jurisdiction of the Board to determine those amounts. A series of interim orders, studies and proceedings occurred. In Water Right Order 81-11 and then in Order 84-7 Amending that Order adopted in 1984 and attached [see Attachment 1], the SWRCB adopted a specific Normal Year and Dry Year release schedule varying by month or period which states as follows: [see Exhibit 1] The Board, of course, retained continuing jurisdiction but in each instance, affirmed in paragraphs 20 and 21 of that Order: "No action will be taken pursuant to this paragraph (continuing authority provision) unless the Board determines, after notice to	The State Water Board has provided extensive notice of potential changes to the Bay-Delta Plan. Chapter 12, Public Participation, of the 2023 draft Staff Report describes the opportunities for public participation in the environmental review process for the Sacramento/Delta update to the Bay-Delta Plan. Section 12.12.2, Section References, lists the official public notices for meetings, workshops, document availability, and opportunity for comment. The State Water Board's "Sacramento/Delta Update to Bay-Delta Plan" web page (https://waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/comp_review.html) also lists and links to the official Board notices and announcements regarding the plan update since 2009. Standard permit terms in California Code of Regulations, title 23, section 780 articulate the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste and unreasonable use. The term goes on to state that "continuing authority may be exercised by imposing specific requirements over and above those contained in the permit" and "no action will be taken pursuant to this paragraph unless" the board makes specific findings after notice and opportunity for hearing. (Cal. Code Regs., tit. 23, § 780, subd. (a) [italics added].) Similarly, subdivision (b) states that the permit may be modified after notice and opportunity for hearing, if necessary to meet water quality objectives in water quality control plans, and "[n]o action will be taken pursuant to this paragraph unless" the board makes certain findings after notice and opportunity for hearing. (Id., subd. (b) [italics added].) These standard permit terms and the conditions contained within apply to the permit terms themselves. If the Board were to reopen the permit pursuant to these permit conditions it would undoubtedly hold a hearing for the specific issues raised in the matter. But the standard permit terms and conditions cannot be read to constrain the Board's

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		affected parties and opportunity for hearing...." (Emphasis added.) No such notice or evidentiary hearing has been provided yet the SWRCB purports to adopt policies and plan elements which magnify the release schedule by tens of thousands of acre feet of water per month during these separate periods and adopt limitations upon use of water when certain storage quantities are not present in Lake Berryessa. The attached Declaration of Paul Fuchslin [see Attachment 2] outlines some of the probable effects.	regulatory authority that exists independent of the permit terms and conditions, including the authority to adopt regulations.
247	8	[Exhibit 1: Table described as a specific Normal Year and Dry Year release schedule varying by month or period]	The exhibit does not raise a specific environmental impact or economic effect of the 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.
247	9	If it were contended by the SWRCB that it is not required to hold a specific, noticed hearing and not required to present evidence in regard to the Putah Creek watershed in order to dedicate a substantial amount of water and storage capacity to goals of creating fishery and other flow conditions in the Sacramento River and Bay Delta, the language of paragraph 21 of the Board's own order is quite specific and contradicts that assertion: "The quantity of water diverted under this permit and under any license issued pursuant thereto is subject to modification by the State Water Resources Control Board if, after notice to the permittee and an opportunity for hearing, the Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon the water quality in the area involved and (2) the water quality objectives cannot be achieved solely through the control of waste discharges." (Emphasis added.) Obviously, the Boards' Order 84-7 binds the Board itself to take no action until and unless there has been a specific hearing	As explained in Section 5.2.3, Regulations and Adjudicative Proceedings, the State Water Board conducts both quasi-legislative and quasi-judicial administrative proceedings, and different rules apply depending on the type of action pending before the State Water Board. In the past, the State Water Board has conducted adjudicative water right hearings to implement the Bay-Delta Plan. In a quasi-adjudicative proceeding, the procedural rules are similar to a court in that testimony is submitted and subject to cross-examination and rebuttal, evidentiary motions may be made, and ex parte communications with the decision-maker are prohibited. This type of hearing is best suited for cases with a discreet set of issues and limited individual parties. Quasi-legislative proceedings, including hearings for the adoption or amendment of regulations, water quality control plans or state policy for water quality control, and hearings to gather information to assist the State Water Board in formulating policy for future action, are not adjudicative proceedings and are subject to different procedures. (See Cal. Code Regs., tit. 23, § 649 et. seq.) A rulemaking proceeding is most effective when a large number of parties will be subject to the regulation. The process can be time and resource intensive, but the procedures are less structured and better tailored for actions that require a comprehensive approach. The basin planning process is a rulemaking proceeding. Both types of proceedings provide adequate due

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		proceeding regarding Putah Creek. The "area involved" is the Putah Creek watershed and downstream. If it is contended that the adoption of a water quality control plan which purports to change or prejudge whether release standards for Solano Project operations should be modified is 'just a plan" and not really binding, established court rulings are clear that such activities violate due process requirements. Due process requires that the Board members not have prejudged the facts and evidence and consider the evidence produced at a hearing, impartially, to comply with due process requirements. (Aetna Life Ins Co v Lavoie (1986) 425 U.S. 813, 106 S.Ct 1580; 89 L. Ed 2d 823.) If the determining party in either a quasi-judicial or administrative hearing body such as the SWRCB and that body has taken action or participated in actions which demonstrate a probability of or actual bias and prejudgment of the issues, procedural and substantive due process requirements of the constitution are violated and denied, and the action will be void. (In re Murchison (1955) 349 U.S. 135, 75 S.Ct 623; 99 L. Ed 942; 7 Witkin Constitutional Law, Section 709.) A decision maker body which has prejudged the issues despite the assurance of notice and a hearing before any alteration in requirements would occur in its own adopted order would be disqualified from any action in providing greater releases of water, or new restrictions upon the water uses from the solano Project or the amounts to be stored in reservoirs. (Withrow v Larkin (1975) 421 U.S. 35, 95 S.Ct. L456, 43 L. Ed.2d 712.) Due process is not complied with if the deciding Board has shown bias before a hearing and consideration of evidence in such a fashion. (Nasha LLC v Los Angeles (2004) 125 Cal.App.4th 470, 483.) Circumstances showing probable bias of decision-making Board by reason of prior actions are sufficient to violate due process requirements of a fair hearing. (Petrovich Dev. Co LLC v Sacramento (2020) 48 Cal.App.5th 963, 974.) Finally, 23 C.C.R.784 quoted in Footnote 1 is explicit that the use of water and storage may not be taken once construction has commenced (FN1) without consent. The SWRCB itself in Permits A1308 in 1995 relating to Cachuma Dam 57 Cal Attorney General 577, 580 (1974) confirmed the regulation of this "plan"	process. The State Water Board possesses legal authority to adopt regulations declaring that a particular use of water under given circumstances is unreasonable without the requirement to conduct a hearing as to any individual water right. (Stanford Vina Ranch Irrigation Co. v. State (2020) 50 Cal.App.5th 976, 1004 [citing Light v. SWRC State Water Resources Control Bd. (2014) 226 Cal.App.4th 1463, 1484-85] ["Stanford Vina"].) The State Water Board implements the Bay-Delta Plan objectives using its quasi-legislative or adjudicative authorities involving water rights and water quality. The State Water Board may implement the objectives by adopting regulations, conducting adjudicative proceedings, or both, that take into consideration the requirements of the public trust doctrine and the California Constitution, article X, section 2. The State Water Board will also continue, as necessary and appropriate, to use its Clean Water Act section 401 water quality certification authority, waste discharge requirements, and other water quality and water rights actions to implement objectives in this plan. While the Board may consider implementation procedures other than, or in addition to curtailment regulations, it is likely that the State Water Board will develop and adopt regulations necessary to implement portions of the plan updates, including regulations to administer the water right priority system with applicable Bay-Delta Plan requirements and commitments. In addition, both the Bay-Delta planning process and any subsequent regulation development provides notice and hearing. Note that the planning process does include general consideration of the factors mentioned in standard water right permit terms and conditions, including California Constitution Article 10, section 2, public interest and uses protected by the public trust.

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		proceeding should be halted until the SWRCB has written to each Member Unit and obtained their written consent to use of storage space and to the release of water necessary to make their deliveries. A substantial review by the SWRCB staff of the question of whether the SWRCB is already conducting illegal eminent domain proceeding and liable for the costs incurred by those Solano Project beneficiaries of the permitted water rights of the Solano Project should occur. C.C.P. § 1036 "in any inverse condemnation proceeding. (an award that)reimburses the plaintiff's reasonable costs including attorney's fees...incurred because of that proceeding". The public understands that bureaucratic organizations' mindless forays are costly and right holders should not be burdened even by extra legal maneuvers such as this. Summary: No notice of hearing has been given nor has a hearing regarding Solano Project flows been scheduled. The Putah Creek watershed has been treated as separate from any requirement to release or to store and then release water or to maintain carryover storage for the benefit or improvement of fishery resources in the Sacramento River or Delta. The proceedings following Decision 869 set release standards based on protecting only those resources. The guarantee of a fair hearing prior to any new release schedule is violated if the SWRCB approves a Draft Plan or CEQA/SED studies that purports to changes the release requirements. A better course is to start anew with an evidentiary hearing, properly noticed or to adopt a separate, carefully sculpted water quality control plan for Putah Creek watershed.	
247	10	WHERE IS THE DESCRIPTION OF THE "REST OF THE PLAN" IN THE DRAFT AND CEQA/SED TEXT? A PROPER CEQA/SED DOCUMENT MUST DESCRIBE SIGNIFICANT ENVIRONMENT AL IMPACTS AND PROVIDE ALTERNATIVES AND MITIGATION MEASURES OR SERVE AS THE BASIS FOR AN "OVERRIDING DETERMINATION FINDING." THIS IS NOT POSSIBLE IF THE "REST OF THE PLAN" IS NOT DIVULGED? THE ENVIRONMENTAL IMPACTS AND ALTERNATIVES TO THOSE IMPACTS FROM REMOVING THAT WATER FROM EXISTING RESIDENTIAL USES AND SID FARMLANDS AND IMPOSING A PROHIBITION UPON WATER USE THAT WILL RESULT IN LESS	Please see the response to comment 247-6. The Staff Report fully satisfies the basic purposes of CEQA, which are to: 1) inform governmental decision makers and the public about the potential significant environmental effects of proposed activities; (2) identify ways that environmental damage can be avoided or significantly reduced; (3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and (4) disclose to the public why a governmental agency approved the project in the manner the agency chose if significant

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		THAT 900,000 ACRE FEET OF STORAGE OF WATER AVAILABLE FOR DOWNSTREAM USES AND THE DESCRIPTION OF THE IMPACTS OF THE REMAINDER OF THE "PLAN" OF THE SWRCB, IS NOT INCLUDED? It will occur to any reader, that if the SWRCB is proposing greater releases downstream and a carryover storage requirement of 900,000 acre feet for Lake Berryessa that substantial environmental impacts are likely and that mitigation measures and a plan for distributing those impacts and redirection of water use from those measures should be included as the "rest of the plan". Look as one will, there is nothing of this nature included in the Draft or studies, making the document legally deficient. We could cite a few well established Court cases and principles, a few treatise(s), the Declaration of Paul Fuchslin Engineer for the Solano Irrigation District and leave it at that but the Board members considering this Project if they order the correction of the legal deficiencies, can learn a great deal about the proposed "Project", the almost religious faith that more water will solve perceived environmental harms and fisheries issues, and in amendment of the CEQA/SED, tailor and condition the Project plan upon real conditions and measures. A "religious life belief" that more water released and prohibiting storage use for other purposes will aid the fisheries is not sufficient facts to balance impacts and make overriding consideration findings. Preliminarily, the more interesting question is why would the Staff of the SWRCB think it was acceptable to omit any such discussion from a proper CEQA/SED for the whole of the watershed and Delta much less for the Putah Creek watershed alone? The answer may be: The Staff does not understand in presenting this draft that no legal concept of a Master EIR and tiering of subsequent implementation measures to implement the Project Plan is legally permitted. Deferring for future examination CEQA/SED consideration of impacts and alternatives or mitigation measures processes is not permitted. The Plan and the "rest of the plan" such as measures to actually reduce the	environmental effects are involved. (Cal. Code Regs., tit. 14, § 15002, subd. (a).) To fulfill these functions, an evaluation of the environmental effects need not be exhaustive, but the sufficiency of an environmental analysis is to be reviewed in light of what is reasonably feasible and CEQA documents need not be perfect. CEQA documents should be adequate, complete, and represent a good faith effort at full disclosure. (Id., § 15151.) The trade-offs between instream flow requirements, carryover storage, and water supply are addressed extensively throughout the Staff Report. 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. Environmental impacts that may occur through implementation of the revised proposed Plan amendments and associated with agriculture and municipal water use along with appropriate mitigation measures can be found in Section 7.4, Agriculture and Forest Resources; Section 7.20, Utilities and Service Systems; Section 13.12.4, Agriculture and Forest Resources; and Section 13.12.20, Utilities and Service Systems. The Staff Report includes scientific analysis supporting the need for increased freshwater flow in Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations. Discussion on the application of CEQA requirements to the Staff Report and how the Staff Report fulfills those requirements can be found in Section 7.1.2, California Environmental Quality Act. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the scope of the project described and analyzed.

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		use of water within the Solano Project service area and the effects of denying use of amounts stored within the 900,000 acre feet storage for drought reliance of residences, industry and farming must be described and compared to the baseline in terms of environmental impacts in this first-tier examination to satisfy CEQA/SED requirements. Tiering or leaving to later the impact of implementing the Plan is not legally permitted as it might be allowed in a land use General Plan circumstance. The idea of tiering of CEQA/SED studies is popular in other arenas and apparently the Staff of the SWRCB thought it would be easier for them (and for you) to defer examination of those impacts, alternatives and mitigation measures, but there is no statutory or judicial authority for leaving discussion and analysis of significant environmental impacts to a later CEQA/SED proceeding in this instance. Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the Project and does not justify deferring such analysis to a later tier EIR or negative declaration; however, the level of detail contained in a first-tier EIR need not be greater than that of the program, plan, policy or ordinance being analyzed: CEQA Guidelines Section 15152, sub. (b) Stanislaus Natural Heritage Project v County of Stanislaus 5th Dist. (1996) 48 Cal.App 4th 182, 197-199. The Guidelines are clear that deferral may have the effect of preventing identification of the significant environmental effects of the plan sought to be approved. CEQA guidelines Section 15152(c). The violation of the law that reasonably foreseeable impacts that are significant must be analyzed in the first tier is clear but ignored here: (A) decision to "tier" environmental review does not excuse a governmental entity from complying with CEQA's mandate to prepare, or cause to be prepared an environmental impact report on any project that may have a significant effect on the environment...to include a detailed statement setting forth "all significant effects on the environment of the proposed project"	

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		Pub. Resource Code 21100 . (Stanislaus Natural Heritage Project v County of Stanislaus 5th Dist. (1996) 48 Cal.App 4th 182, 197.)	
247	11	COMPARING PAST USE OF CARRYOVER STORAGE OF LAKE BERRYESSA WITH THE NEW PROPOSED 900,000 ACRE FEET CARRYOVER REQUIREMENT DEMONSTRATES VIOLATION OF CEQA/SED REQUIREMENTS ALONE IN THAT SIGNIFICANT IMPACTS ARE NOT EVEN IDENTIFIED MUCH LESS ALTERNATIVES CONSIDERED. The Declaration of Paul Fuchslin [see Attachment 2], Engineer for SID explains that in 1977, if the carryover storage requirement of 900,000 ac ft were enforced, for a period of more than 9 months, no water could be delivered for urban users and agricultural use in Solano County and in the period 1990 through 1993 approximately 3 years, no water could be delivered to urban consumers or agricultural users because the 900,000 acre feet requirement would be violated. Again, in 2016 through 2017, for approximately 1/2 of the months in that two-year period no water could be delivered if the 900,000 acre feet carryover storage requirement were implemented. See Graphs Exhibit "A" to the Declaration of Paul Fuchslin. Yet there is no examination of the environmental impacts of those requirements, alternatives or what is intended in the "rest of the plan". Perhaps we misunderstand what a carryover storage limit requirement means, but an accurate and clear description of what the "Project" is, is a well-established requirement for an adequate CEQA/SED document.	Section A1.3, Reservoir Carryover Storage Targets, of Appendix A1, Sacramento Water Allocation Model Methods and Results, explains that the carryover targets are not hard constraints, but rather targets that were used as guidelines of carryover storage to maintain as frequently as in the baseline scenario, so the interpretation that a carryover storage target of 900,000 acre feet would prevent the delivery of all water for some years is incorrect. Chapter 6, Changes in Hydrology and Water Supply, acknowledges the possibility that cold water habitat could be adequately protected at lower levels than set in the model and that tailored operational management will result in more surface water available, thereby reducing associated impacts. Note also that model results are presented as worst case scenarios that do not utilize flexibility included in the Plan for adaptive management and local cooperative solutions to further reduce impacts. 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. 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. Please see Chapter 13, Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report for a description of the revised Plan amendments. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding carryover storage targets and SacWAM reservoir buffer pools. Please see Common Response 7.1, General CEQA and Approach

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			to the Analysis, on the level and scope of the analysis conducted in the Staff Report.
247	12	THE NULLIFICATION OF THE DROUGHT MEASURES AGREEMENT AND COULD INACTION OF SWP AND SOLANO PROJECT DELIVERIES IS NOT EXAMINED. Another important principle of CEQA/SED law is invoked and apparently violated: A project description must accurately describe the "Project" and its effects. County of Inyo v City of Los Angeles (1977) 71 Cal.3rd 185, 199; San Joaquin Rap/ors/Wildlife Rescue Center v County of Stanislaus (1994) 27 Cal.App 4th 713, 730; whether the legal doctrine adopted by the Courts to enforce the law regarding this CEQA/SED draft will be that no accurate project baseline was described in the CEQA/SED document allowing the "Project" environmental impacts and changes to be measured against and permitting the determination of alternatives and possible mitigation or whether the rule violated by the SWRCB CEQA/SED Draft is that it fails to measure the reasonableness of the overriding consideration determination, the legal deficiency of this document in regard to the Putah Creek watershed is obvious. The "baseline" omits all description of the nullification of the conditions of the existing Drought Measures Agreement between Solano Project Member Units) Exhibit "B", Declaration of Paul Fuchslin and storage of water utilizing storage between 400,000 and 850,000 acre feet to coordinate SUP and Solano Project use in droughts.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description and Common Response 6.2, Baseline and No Project Alternative. The State Water Board is not a party to the agreement between the Solano Project Member Units and is not bound by the terms of third-party agreements. It is not clear from the comment what this agreement is and how it relates to the project modeling. The Staff Report considers reasonably foreseeable response to the Plan amendments. Other parties' modification or nullification of existing agreements in response to this project is not reasonably foreseeable. Rather, the Staff Report's analysis reasonably assumes that water suppliers and users will continue in their current binding agreements. To implement the Bay-Delta Plan, the State Water Board will develop an implementation methodology to determine when water is not available at water right holders' priorities of right. In implementing curtailments, the State Water Board will consider and accommodate as appropriate relevant court decrees, settlement agreements, and other arrangements that affect water diversion and use to the extent consistent with the water right priority system.
247	13	THERE IS NO DESCRIPTION OF THE EFFECT UPON GROUNDWATER MANAGEMENT IN SID'S SERVICE AREA AFTER REDUCING DELIVERIES TO AGRICULTURAL LANDS. After a terrifying condition of overdraft of groundwater resources in Solano County before commencement of the Solano Project operations in the 1950's and early 1960's, the SWRCB Plan will cause the destruction of the coordinated operation of the groundwater basin underlying Solano Irrigation District that storage is utilized for critical dry year periods and Drought Measures Agreement operations in the long drought cycle applicable to this watershed which has no significant snow melt storage potential. These facts are all ignored in the CEQA/SED and the impacts that will be caused and which effects and	The commenter provides background and opinion regarding groundwater overdraft in Solano County, the Solano Irrigation District, the Solano Project, and the Solano Project Members' Agreement as to Drought Measures and Water Allocation (Drought Measures Agreement), and then claims, without specificity, that this constitutes critical facts that are omitted from the environmental analysis. The Drought Measures Agreement, attached to commenter's letter, describes the purpose of the Agreement as "measures to be used in regard to the accounting of water not used from a Party's annual entitlement from the Solano Project in a year after renewal, and also to provide for contractually agreed-to and enforceable curtailments in the amount of water taken under the

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		impacts are legally required to be considered must be identified, examined, and alternatives or mitigations measures examined. Woodward Park Homeowners Assoc Inc v City of Fresno (2007) 150 Cal.App 4th 683 Guidelines 15125(a). This failure to consistently and coherently measure the impacts of the Project relative to the baseline conditions and the absence of even an attempt to describe the impact of no or limited water service from the Solano Project particularly when the deliveries from the companion project of the SWP, the North Bay Aqueduct and any local supply sources would be severely curtailed during the same drought period cannot meet legal requirements for a CEQA/SED document (Declaration of Paul Fuchslin, paragraph 5.).	Parties’ annual entitlements during certain drought conditions.” (Drought Measures Agreement, paragraph 1.2.) The drought conditions are measured by storage levels in Lake Berryessa and the Agreement sets out what measures the Parties will take if storage falls below 800,000 acre-feet, such as water conservation measures and potential emergency supplies, and then moves to mandatory measures like foregoing 5-10% of entitlements, and a voluntary agricultural water marketing program if storage is at lower levels. (Ibid, paragraphs 4.1, 5.1, and 5.8.) The comment cites the Declaration of Paul Fuchslin, dated January 15, 2024. The declaration states that the proposed Plan amendments will cause “the destruction of the coordinated operation of the groundwater basin,” and this will not be mitigated; However, while it is not identified in either the letter or the Declaration, Mr. Fuchslin is the basin contact for the Solano Irrigation District Groundwater Sustainability Agency (Solano Irrigation District GSA), which is tasked with implementing sustainable groundwater management in the basin pursuant to SGMA and in coordination with other GSAs. Mr. Fuchslin has been the Solano Irrigation District GSA point of contact since at least 2019 and therefore should be presumed to understand GSA authorities under SGMA (DWR 2019). The letter references paragraph 5 of Mr. Fuchslin’s Declaration to support assertions made in the comment; however, the Declaration of Paul Fuchslin does not have a numbered paragraph 5. The letter advises, without support, that if more carryover storage is maintained in Lake Berryessa, this will cause the “nullification of the Drought Measures Agreement” and then asserts that this assumption was one of the critical facts omitted from the Staff Report. CEQA does not require the State Water Board to speculate in its analysis how parties might reinterpret their existing agreements if the plan Amendments are implemented. The Staff Report acknowledges that changes to groundwater management may be necessary to meet SGMA requirements and the Sacramento/Delta Bay Delta Plan update. Avoiding overdraft conditions in Solano County can be achieved by adapting to changes in water supply and incorporating efficient conjunctive use management, as intended by SGMA. Adverse effects caused by overdraft will be addressed in a future update to the Solano Subbasin Groundwater Sustainability Plan (GSP).

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			Please see Section 7.12.2, Groundwater, for more information on the qualitative impact analysis for groundwater and mitigation measures. Please also see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more information on how the Sacramento/Delta update to the Bay Delta plan aligns with the implementation of SGMA and Common Response 7.1, General CEQA and Approach to the Analysis, for more information on how the Staff Report meets CEQA requirements.
247	14a	THE CEQA/SED SHOULD APPLY THE SAC WAM MODEL REDUCTIONS TO ACTUAL DELIVERY AMOUNTS TO THE CITIES AND SID. If the SWRCB has a "Plan" it is proposing to adopt and enforce, the remainder of the Plan and those impacts are hidden and ignored. Thus, the cry "what is the remainder of the SWRCB plan?" As the Declaration of Paul Fuchslin on behalf of Solano Irrigation District [see Attachment 2] explains, to achieve the 900,000 acre feet carryover requirement and reduce the deliveries in all years to Solano Irrigation District and the City Member Units in the range of 25% to 35% to meet the unimpaired flow releases. These amounts will have to be unavailable and made up by the reduced use from the baseline conditions (Table 6.3-6) pgs. 6-40) deliveries from Lake Berryessa for consumption in Solano County by cities and agricultural users. The Plan needs to explain exactly how much the City of Fairfield and Vacaville should tell their homeowners and industries will have to be reduced in the future.	SacWAM simulates "existing conditions" to create a baseline scenario to evaluate each flow scenario. SacWAM also simulates project alternatives, which include carryover storage targets to maintain cold water pool. The carryover targets are explained in Appendix A1c, Preliminary Assessment of Effect of Reservoir Storage on Reservoir Release Temperature. The results presented in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis, show the reductions in water supply associated with the carryover storage targets and the added instream flow requirements. Please see Common Response 6.1, Sacramento Allocation Model and Changes in Hydrology and Water Supply, regarding the scope, scale, and application of SacWAM. Please see Common Response 7.1, General CEQA and Approach to the Analysis, on the level and scope of the analysis conducted in the Staff Report.
247	14b	THE CEQA/SED SHOULD APPLY THE SAC WAM MODEL REDUCTIONS TO ACTUAL DELIVERY AMOUNTS TO THE CITIES AND SID. The "rest of the plan" is not unveiled as to how the urban consumers or agricultural users would reduce their use by these large levels and the cumulative impacts upon groundwater overdraft in Vacaville, Dixon areas and SID, that would be caused assuring the carryover storage requirement is enforced. The cumulative effect of reduction of SWP deliveries during the	The Staff Report acknowledges that changes to groundwater management may be necessary to meet requirements for the Sustainable Groundwater Management Act (SGMA) and the Sacramento/Delta Update to the Bay-Delta Plan. Avoiding overdraft conditions in Solano County can be achieved by adapting to changes in water supply and incorporating efficient conjunctive use management, as intended by SGMA. The Plan amendments do not mandate any particular approach that Solano Irrigation District, or any other water supply, must take to meet the Plan's objectives and implementation requirements. Those decisions, and any required environmental review, are

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		same period as reduced availability from the Solano Project and the mitigation measures and their impacts is not described. Example: Is all residential landscaping used to be prohibited? Are all new domestic connections in Solano County to be prohibited unless the water for a proposed connection and new domestic use service is to be obtained from newly and permanently fallowed farmland? Are realtors obligated to inform upon sale of an existing home that the water use upon existing homes is to be reduced under the new "Plan" by removing all exterior landscaping uses or blocking off one of every three bedrooms from occupancy to reduce water use? Are each farmable property in Solano Irrigation District to designate a percentage of the land (approximately 20%-25%) of the productive land to be fallowed to reduce both surface and groundwater use to achieve the SWRCB "Project" of unimpaired flow? Will those food producing ranches remaining economies of scale be destroyed and further impacts by the fallowing occurring which cannot be mitigated? The CEQA/SED simply fails, claiming tiering is permitted, to describe the "rest of the plan. In short, SWRCB tell us what the "Plan" is and take responsibility for your "Plan."	appropriately left to local and regional decisionmakers. Chapter 7, Environmental Analysis, of the Staff Report discusses the environmental effects of the proposed Plan amendments. See Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description and general CEQA overview. See also Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding SacWAM scope, scale and application. Section 7.23.1, Cumulative Impact Analysis, of the Staff Report discusses SGMA in relation to the cumulative impact analysis. See Common Response 7.23, Cumulative Impact Analysis, for responses to comments related to the adequacy of the cumulative impact analysis and the adequacy of mitigation measures. See also Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more discussion on how SGMA aligns with the Sacramento/Delta Bay Delta Plan update.
247	15	GOALS The SWRCB members are free to pass a resolution announcing their personal views and their personal goals of "restoration" of a certain percent of unimpaired flow to be returned to the environment from current uses. It is when specific measures, requirements or actions are proposed as part of a governmental "Plan" that CEQA/SED requirements must be complied with, water quality control plans must balance uses and factors and consider alternatives. That information to provide for determination of the effects of or alternatives of balancing or the full elements of the "Plan" is not accomplished in this instance. It is for the Plan authors to explain in grinding detail, the full Plan and specify the steps and mitigation measures the local interests are to employ to reduce or eliminate adverse environmental impacts.	The Staff Report includes a complete analysis of the alternatives that complies with all legal requirements including CEQA. The commenter has not provided substantiating information or evidence for the claim that information is missing nor specific details on what specific information the commenter believes is missing. Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion of the legal requirements for water quality control planning; Common Response 1.3, Revised Proposed Plan Amendments, for detail on the revised proposed Plan amendments; Common Response 1.2, Water Quality Control Planning Process, for a discussion of consideration of beneficial uses; and Common Response 7.1, General CEQA and Approach to the Analysis, for information on the CEQA analysis.
247	16	A DRAFT WATER QUALITY CONTROL PLAN THAT PROPOSES TO TAKE WATER CURRENTLY USED BY THOSE URBAN CONSUMERS AWAY FROM THOSE CONSUMERS IS UNIQUE. THE PORTER	Potential changes in municipal water supply are discussed in Section 7.20, Utilities and Service Systems, as well as Sections 8.2.3, Municipal Water Use and 8.5, Municipal Water Supply

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		COLOGNE ACT IS EXPLICIT THAT IF THOSE ELEMENTS ARE PART OF A PROPOSED PLAN, THE CEQA/SED MUST INCLUDE SUFFICIENT TERMS TO EXPLAIN AND OUTLINE HOW THE PLAN WILL RESULT IN A DECENT HOME AND SUITABLE LIVING ENVIRONMENT. CEQA/SED LAW ALSO REQUIRES THE FULL PLAN TO BE DIVULGED. The Draft Plan leaves that problem unaddressed. Unless the SWRCB addresses "the rest of the plan" and specifies what is to be done with existing residences' water service, the statutes are violated. Water Code Section 13142 states: State Policy for water quality control shall consist of all or any of the following: *** The principles, guidelines and objectives shall be consistent with the state goal of providing decent home and suitable living environment for every Californian. For the first time, the SWRCB is considering a "plan" that will take water currently utilized for urban residents' existing homes away from those homes and residents. The plan does not tell the local interests how to accomplish that. This is not just a matter of refusing new connections or building permits. If each existing home is to be subject to rationing to reduce the amount of water used by 25% to 35%, in order to dispatch new amounts of unimpaired flows down Putah Creek and maintain carryover storage of not less than 900,000 acre feet (presumably cold water for fisheries uses) and the Solano Member units local agencies drought measures plan is to be rendered unusable and coordination of use of SWP plentiful supplies in some years to store water in Lake Berryessa is to be rendered useless by the unimpaired flow plan, the SWRCB needs to describe and proscribe the details of its plan because the Board's proposed plan has not addressed significant environmental impacts. Perhaps, the Board proposes that a priority system be	Economic Effects, of the 2023 draft Staff Report, and in Section 13.7.20, Utilities and Service Systems, of the final Staff Report. Please note that municipal supply portfolios contain sources aside from Sacramento/Delta supply. As a result, any reduction to the Sacramento/Delta supply available to municipal users will have a smaller overall effect on the total municipal supply. See Tables 6.4-1 and 7.20-8 in the 2023 draft Staff Report for an explanation of the estimated water supply impacts associated with each of the flow scenarios as they relate to total municipal supply. Please also see Appendix A1a, Methods for Estimating Regional Sacramento/Delta Surface Water Supply for Agricultural and Municipal Use, for the Sacramento Water Allocation Model methods used to represent changes in water supply in each flow scenario analyzed in the 2023 draft Staff Report. The revised proposed Plan amendments' program of implementation contains provisions for local cooperative solutions (also referred to as "voluntary implementation plans" in Chapter 5 of the Staff Report) allowing flow shaping, and provisions allowing the State Water Board to adjust flow requirements along an adaptive range between 45 and 65 percent of unimpaired flow, inclusive. These plan flexibilities could help reduce water supply impacts. In addition to the proposed Plan amendments, which remain part of the project as the regulatory pathway, the project has also been revised in response to comments received expressing concerns over potential water supply and carryover storage impacts. The revised proposed Plan amendment's inflow requirements 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. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the revised proposed Plan amendments' inflow objective and its associated water supply adjustments. See also Common Response 6.3, Water Supply and Other Water Management Actions, and Common Response 7.20, Utilities and Service Systems. Further, in response to comments asserting that the initial

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		established in which the last in time of connections for homes and businesses to Vacaville, Fairfield, Vallejo, or SID's systems should be issued an order to vacate their homes and stop water use until the unimpaired flows can be passed through and carryover storage requirement of 900,000 acre feet is again met? Alternatively, is all outside landscaping to be abandoned in all wet and dry years to achieve the unimpaired flows and carryover storage? This Draft Plan does not meet statutory requirements and certainly CEQA/SED requirements are violated unless the "rest of the plan" is unveiled by SWRCB and its environmental impacts examined. An alternative financing plan of the state funding these costs, as an alternative with less significant environmental impacts, must be described if it exists. The "dream" of imposing new costs on a limited population of local uses to save water for the new unimpaired flow project when the benefits of the unimpaired flow programs are gained by all citizens must be considered through financing plan and mitigation measures. The cumulative impacts of taking up to 20%-25% of the irrigable land within the Solano Irrigation District and perhaps a larger percentage of the adjacent lands dependent only upon groundwater (which groundwater rights will have to be adjudicated and limited in use (Fuchslin Declaration, paragraphs 3, 4) idling a greater percentage of the overlying lands) is not examined at all in this CEQA/SED, or even mentioned in the Draft Plan. The Staff of the SWRCB and the Board Members themselves are in new territory in taking water away from existing uses for a program of unimpaired flow use and new reservoir storage carryover requirements, but the statutes specify the requirements. Water code section 13141 requires the financing plan of idling existing farming operations to be carefully organized and described to reduce cumulative and magnifying environmental impacts ... but the SWRCB's Draft Plan fails to include the "rest of the plan." (Citizens for Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553,564. [A SED must describe a reasonable range of alternatives. It must evaluate the comparative merits of those alternatives. (Guidelines, § 15126.6(a).])	carryover storage requirements were too restrictive, the revised proposed Plan amendments allow reservoir owner/operators, as part of their development of long-term temperature management strategies, to propose their own carryover storage levels within an appropriate range tailored to each reservoir (including Lake Berryessa on Putah Creek), that is lowered during drought years. The revised proposed Plan amendments' program of implementation also contains numerous flexible provisions allowing for adaptive management to minimize water supply impacts (e.g., the ability to manage numeric flow requirements as a total volume of water to shape flows) and also contains provisions allowing the State Water Board to develop and implement curtailment exceptions for human health and safety needs and other appropriate purposes. The Staff Report acknowledges that changes to Solano Irrigation District's groundwater management may be necessary to meet requirements for the Sustainable Groundwater Management Act (SGMA) and the Sacramento/Delta Update to the Bay-Delta Plan. Avoiding overdraft conditions in Solano County can be achieved by adapting to changes in water supply and incorporating efficient conjunctive use management, as intended by SGMA. Adverse effects caused by overdraft will be addressed in a future update to the Solano Subbasin Groundwater Sustainability Plan (GSP). See Section 7.23.1, Cumulative Impact Analysis, of the 2023 draft Staff Report for further discussion of SGMA in relation to the cumulative impact analysis. Chapter 8 and Sections 9.8 and 13.8 of the Staff Report, each titled, Economic Analysis and Other Considerations, analyze the economic effects of changes in hydrology and water supply on agricultural and municipal use. Economic modeling results are provided in Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results; Appendix A4, Regional Economic Analysis Modeling Procedure, and Appendix G3c, Economic Considerations for the Proposed Voluntary Agreements. See also Common Response 8.1, Economic Analysis and Other Considerations, regarding regional economic analysis and estimates of potential economic effects.

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247	17	THE BOARD MEMBERS SHOULD UNDERSTAND THE LEGAL IMPLICATIONS AND ORGANIZATIONAL IMPLACATIONS OF ADOPTING THE SAME WATER QUALITY CONTROL PLAN FOR EACH WATERSHED IN THE FORM OF RELEASE OF UNIMPAIRED FLOWS AND CARRYOVER OF RESERVOIR QUANTITIES, INCLUDING PUTAH CREEK. THE ADOPTION OF "GOALS AND PHILOSOPHIES" INSTEAD OF A WATER CONTROL PLAN IS PREFERRABLE BECAUSE THE ADOPTION OF A "PLAN" WITH THESE ELEMENTS WILL ALLOW LITIGATION TO STOP ALL DEVELOPMENT OF JOBS AND INDUSTRIES. The Porter Cologne adoption of a water quality plan means that no state or federal governmental action is permitted in conflict with that plan. Not just 401 certifications (or federal projects may not be issues (Water Code section 13160), but no California CEQA findings by a local agency can be made that new connections or different water quantities may be used when a formal adoption of a water quality control plan such as that proposed by the Board staff occurs. (Water Code§ 13146 ["... in carrying out activities which affect water quality, shall comply with state policy for water quality control unless otherwise directed ... in which case they shall indicate to the state board in writing their authority for not complying with such policy."].) If the Board members have a personal goal or opinion that too much water has been taken from environmental uses, adopt it as your philosophy or goal, but do not include such a broad and comprehensive policy in a Water Quality Control Plan without dealing with the plan to implement that goal. The goal or longing of the proposed plan and CEQA/SED for unimpaired flows to pass reservoirs and diversion points and to reserve reservoir storage water for fish is better adopted by the Board as a goal only. To adopt it as a water quality control plan is to arm every opponent of every development project using water with a weapon to stop even consideration of such projects until the SWRCB has changed or considered changing its "plan" for that watershed. A group challenging every CEQA process for new or different development will be able to stop even the most beneficial and well thought out projects involving the use of	The regulatory pathway includes significant flexibility to enable the required flows to be adaptively implemented to meet the needs of individual tributaries. Staff Report Section 5.6.2, General Measures to Assist with Implementation of the Bay-Delta Plan, also acknowledges that not all tributaries have the same hydrology, fisheries, and water supply needs, and therefore implementation mechanisms in the revised proposed Plan amendments are intended to be flexible to encourage innovative solutions by various parties and to accommodate a variety of different watershed circumstances and needs. For example, the revised proposed Plan amendments allow water users to propose local cooperative solutions that could shape flows seasonally. Please see Common Response 1.3, Revised Proposed Plan Amendments, for further information about the inflow requirements in the regulatory pathway, including adaptive implementation measures and the water supply adjustments. Please see Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board's water quality control planning authorities and duties pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and the Clean Water Act. See also Common Response 6.3, Water Supply and Other Water Management Actions. The State Water Board and Regional Water Quality Control Boards are charged with developing water quality control plans to protect the state's waters. (Wat. Code, §§ 13170, 13240.) Each water quality control plan consists of a designation of beneficial uses of the waters within a specified area, a set of water quality objectives to reasonably protect those beneficial uses, and a program of needed for achieving those water quality objectives. (Wat. Code, § 13050, subd. (j).) Adopting a nebulous, unenforceable set of "goals and philosophies" would not fulfill the State Water Board's legal obligations under Porter-Cologne and the Clean Water Act. Additionally, the Porter-Cologne Act does not require the exact text of a program of implementation to be made available in a Staff Report. Rather, the Staff Report is a synthesis of the Board's modeling, analyses, and findings, which will ultimately inform the development of a program of implementation. The 2023

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		water until the SWRCB has considered and adopted changes in its plan for that watershed.	draft Staff Report included a detailed description of the proposed contents of the program of implementation in sufficient detail for the purposes of the analysis. As discussed in 2023 draft Staff Report Section 7.16, Population and Housing, activities that would have an impact on population and housing would be development or infrastructure projects that could induce substantial population growth in an area or activities that could result in displacement of substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. Changes in hydrology and changes in water supply would not result in activities that would affect population and housing. For more details on this analysis, please refer to Section 7.16 of the 2023 draft Staff Report.
247	18	Attached [see Attachment 1] is a public record request of the City of Fairfield for the Anheuser Busch Brewery visible from Interstate 80 providing jobs to Californians and allowing safe housing for its suppliers and workers. Anheuser Busch would never contend that beer is more important than housing or production of food for human consumption. Solano Irrigation provides the raw water and the City of Fairfield provides the treatment and pressurization of the supplies to that plant. Understandably, because of the lack of organization in developing new storage projects for water in California, when, in 1989, an amendment was considered to permit future expansions of its plant, Anheuser Busch was forced to place in its contract provisions a condition requiring new connectors to third parties if capacity to make deliveries was not available. (Contract attached.) Paragraph 6.4 D of that contract states: "If at any time ... City shall not grant any new connections to any other persons or entities within such City until such supplies and capacity are available...." When neighbors object to the density or location of housing projects located in Fairfield or SID which requires water use in the future, what better weapon for those opponents than citing the SWRCB aspirational but adopted plan of 55% unimpaired flow which takes away already used capacity and supply of Fairfield and	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, including a discussion on housing. See also the response to comment 247-16 above for a discussion of water supply impacts associated with the Plan and flexibilities and adjustments that may help reduce those impacts. See also Chapter 8 of the 2023 draft Staff Report, Economic Analysis and Other Considerations, for the State Water Board's consideration of economic factors pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The Staff Report's economic analysis satisfies any economic considerations required under sections 13141 and 13241 of the Porter-Cologne Act, and under CEQA, to the extent that economic impacts could result in potentially significant impacts on the physical environment. See also Common Response 8.1, Economic Analysis and Other Considerations, for a discussion of potential regional economic effects related to the plan amendments.

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		SID. Solano Irrigation District and the City of Fairfield do not dispute that the SWRCB, city government, and others should decide the best use of water on a watershed-by- watershed basis, but the SWRCB should not provide a "trump card" stopping all decision making regarding jobs, location of water use, or housing by local agencies until the SWRCB has held hearings on a specific watershed and potentially retreated on its proposed adopted plan, as well as considered modifying the Putah Creek plan in the future regarding limits on reservoir storage and mandated unimpaired flows. The "balancing process" must be undertaken in advance, or the SWRCB will have to conduct all land use, housing, and economic planning hearings after it has frozen all actions. If the SWRCB intends a moratorium on different water use by this "Plan", it should state that, because that will be the effect, and spare the courts the burden of that end result.	
247	19	THE DUTY UNDER PORTER COLOGNE TO HAVE A "PLAN" DOES NOT MEAN THAT THE BOARD CAN LIMIT THE PLAN TO ONE STANDARD OR DEVICE APPLICABLE TO ALL SUBWATERSHEDS FLOWING INTO THE SACRAMENTO RIVER, OR THAT ALL WATERSHEDS WITH DIFFERENT CONDITIONS AND DEMANDS CAN BE TREATED BY ONE PHRASE OR STANDARD AND MEET THE REQUIREMENTS OF A "PLAN". Water Code section 13000 requires that in considering and adopting a water quality control plan, the Board consider all competing demands for use of water. The case of United States v. State Water Resources Control Board (1986) 182 Cal.App.3rd 82 ("Racanelli") requires that the Board consider and balance all demands and uses of water. No particular environmental uses are entitled to preference or priority. Why the SWRCB's Plan would conclude that all watersheds feeding the Sacramento and Delta should be subject to the same or similar unimpaired flow standard and all RIM reservoirs should be subject to a carryover storage requirement is not explained. Even if different percentages of unimpaired flow are eventually applied, and different specifications of how that carryover storage requirement is to be administered by the SWRCB presumably during drought emergencies where	Please see the response to comment 247-17. Due to the scope and complexity of Sacramento/Delta water use, the environmental analyses of the 2023 draft Staff Report are necessarily broad. Specific and detailed discussion for every water district or water diverter would not be feasible, nor is it required. CEQA's basic purposes are to: (1) inform governmental decision makers and the public about the potential significant environmental effects of proposed activities; (2) identify ways that environmental damage can be avoided or significantly reduced; (3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and (4) disclose to the public why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved. (Cal. Code Regs., tit. 14, § 15002, subd. (a).) An environmental document need not be exhaustive; it need only be prepared with a sufficient degree of analysis to provide commenters with sufficient information to provide comments on the analysis and decision makers with sufficient information to make an intelligent, informed decision. (Id., § 15151.) Please see Common Response 1.2, Water Quality Control

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		reservoirs have been constructed. If one tried to explain the uniformity of this approach to a court, the illogic of such a uniform "plan" would soon be apparent and the failure to balance would be admitted. This "Project" has been manufactured out of prejudice and dogma. There is nothing about a percentage of unimpaired flow that evidence balancing when in one watershed water may be used more beneficially than in another with completely different considerations of the amounts of water that might support fishery resources. The CEQA/SED fails to explain why individual sub-watershed reviews and plans were not considered with different goals and flow use mechanisms in Putah Creek contrasted with, as an example, the American River where perhaps no percentage of unimpaired flow standard would be applicable. Putah Creek is different than other sub-watersheds. This is planning with a blindfold on and listening to one voice only. The requirement that water be reasonably and beneficially used is further violated by this approach in lockstep. The Constitutional requirement of reasonable use (State Water Board Cases at 762; Environmental Defense Fund v. East Bay Municipal Utility District (1980) 26 Cal.3d 183, 194 [requires a comparison of potential uses of the water]; Imperial Irrigation District v. State Water Resources Control Board (1990) 225 Cal.App.3d 548, 570-571. It may be easier for the SWRCB and its staff, but the lockstep approach of lumping all uses into one standard on its face violates the legal requirements, including the requirement of considering alternatives and their environmental impacts.	Planning Process, for a discussion of the State Water Board's consideration of beneficial uses during the water quality control planning process, as well as a discussion of waste and unreasonable use and Article X, Section 2 of the California Constitution. Please see the response to comment 247-16 for a discussion of adjustments to flow and carryover storage requirements in recognition of Putah Creek's circumstances.
247	20	Non-flow measures such as fish hatcheries, limits on predators, and programs to remove predators are not mentioned or considered, and this violates all applicable legal principles. DFW hates fish hatcheries and hates predators to those fish being curtailed or controlled; yet this CEQA/SED and Porter Cologne proposed plan, contains no explanation of why those measures are not even more effective than increased water flows and would have less significant impacts upon the environment than	All of the alternatives include non-flow measures as described in Section 7.2, Description of Alternatives. As described in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report, implementation of the proposed Plan amendments includes physical habitat restoration and other complementary ecosystem measures. The cold water habitat measures could be implemented through non-flow measures, and voluntary

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		alternative parts of the Plan. (Fact Sheet: Working Draft Scientific Basis Report for Flow Requirements on the Sacramento River, its Tributaries, Eastside Tributaries to the Delta, Delta Outflow and Interior Delta Flows, October 19, 2016.) There is absolutely no consideration of these alternative, non-flow measures which would preserve water for other beneficial uses. Without a reasonable analysis of the alternatives, the CEQA/SED is inadequate and counter to law. Further, the absence of discussion or consideration shows a failure to "balance" uses of water which is required by Porter Cologne and a basic requirement of reasonable and beneficial use of water under Constitution Article 10, Section 2. (In re Waters of Long Valley Creek Stream System (1979) 25 Cal.3d 339, 354.) This reasonable range of alternatives are not considered, examined, or explained. (Citizens for Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564; Guidelines § 15126.6(a).	implementation plans (now referred to as local cooperative solutions) could propose non-flow measures. In addition, as described in Chapter 9, Proposed Voluntary Agreements, the VA pathway includes a combination of flow and non-flow measures. Further, Chapter 4, Other Aquatic Ecosystem Stressors, includes discussion of physical habitat, hatcheries, information on the effectiveness of predator suppression methods, and other information on non-flow measures. Please see Common Response 1.2, Water Quality Control Planning Process, on the consideration of beneficial uses; Common Response 1.3, Revised Proposed Plan Amendment, for more information on the non-flow measures included in the revised proposed Plan amendments; and Common Response 7.24, Alternatives Analysis, on the range of feasible alternatives.
247	21	IDLING AGRICULTURAL IRRIGATED ACRES TO ACHIEVE COMPLIANCE WITH A WATER QUALITY CONTROL PLAN REQUIRES SIMILAR MANDATORY DESCRIPTIONS OF THE PLAN AND THE MEANS OF FINANCING THE "PLAN". The SWRCB Draft Plan similarly omits any description of the financing plan of removing 20% to 30% of the surface water irrigation of agricultural lands in SID and greater amounts in surrounding areas. Such a financing plan is required? Water Code section 13141 states as a portion of the requirements of the Porter Cologne Water Quality Control Plan, that a financing plan be adopted. It requires: However, prior to implementation of any agricultural water quality control program, an estimate of the total cost of such a program, together with an identification of potential sources of financing. Shall be indicated in any regional water quality control plan." (Emphasis added.) The SWRCB has included no such plan of financing this land idling plan which will be required. The legislature does not state that a plan can be adopted without an outline of the financing plan.	Staff Report Chapter 8, Economic Analysis and Other Considerations, analyzes the economic effects of changes in hydrology and water supply on agricultural and municipal use. Chapter 8, Economic Analysis and Other Considerations, identifies representative costs of alternative water supplies and of new or modified facilities, as well as other economic effects. As discussed in Chapter 8, Economic Analysis and Other Considerations, under the Porter-Cologne Water Quality Control Act, the State Water Board is required to consider several factors, including economic considerations, when establishing water quality objectives for the reasonable protection of beneficial uses (Wat. Code, § 13241). The need for economic analysis associated with State Water Board actions is also required by Water Code section 13141. 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, including identification of potential sources of financing, for example, please see Section 8.4.5, Financial Assistance for Agricultural Water Conservation. Please refer to Common Response 1.2, Water Quality Control Planning Process, for Board consideration of factors under Water Code section 13241 and discussion of Water Code section 13141. Please also refer to Common Response 8.1, Economic Analysis and Other Considerations, for additional regulatory context.

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		It is true that the financing of a program to reduce surface water irrigation or use of groundwater for those irrigated acres can await implementation of the plan, but the above Porter Cologne requirement of a financial plan and CEQA/SED requirements requires that the environmental impacts of the SWRCB financing program be fully examined. Here, again, the SWRCB has omitted the "rest of the plan." Leaving it to the local landowners to determine the financing plan is not permitted. The acres that are to be idled or fallowed must be identified and the economic effects upon the remainder of the users within SID of having to assume the overhead and continuing costs of maintaining SID's irrigation system for service to those reduced number of irrigated acres (even though they may not be irrigated), must be outlined and examined if that is the SWRCB plan. States v. State Water Resources Control Board (1986) 182 Cal.App.3d 82 ("Racanelli") requires that the Board consider and balance all demands and uses of water. No particular environment uses are entitled to preference or priority. Why the SWRCB's Plan would conclude that all watersheds feeding the Sacramento and Delta should be subject to the same or similar unimpaired flow standard and all RIM reservoirs should be subject to a carryover storage requirement is not explained. Even if different percentages of unimpaired flow are eventually applied, and different specifications of how that carryover storage requirement is to be administered by the SWRCB presumably during drought emergencies where reservoirs have been constructed. If one tried to explain the uniformity of this approach to a court, the illogic of such a uniform "plan" would soon be apparent and the failure to balance would be admitted.	Chapter 7, Environmental Analysis, of the Staff Report contains an environmental analysis of the reasonably foreseeable methods of compliance as required under CEQA. To organize the environmental analysis, the evaluation of reasonably foreseeable methods of compliance and response actions that may be taken in response to the project are organized into the following categories: (1) changes in hydrology, (2) changes in water supply, (3) habitat restoration and other ecosystem projects, and (4) new or modified facilities. The evaluation of actions that may be taken in response to changes in water supply includes other water management actions, which include groundwater use and groundwater storage and recovery/conjunctive management efforts, water transfers, water recycling, and conservation measures that are already being implemented throughout the state. Chapter 7, Environmental Analysis, also contains an analysis of reasonably foreseeable mitigation measures that would minimize any unavoidable significant adverse environmental impacts of the reasonably foreseeable methods of compliance. Multiple mitigation measures discuss and identify potential funding sources. For example, Mitigation Measure MM-a,e, 2: Diversify Water Portfolios, identifies that grant programs, such as the Agricultural Water Use Efficiency Program and State Water Efficiency and Enhancement Program, could help to provide for the enhancement of agricultural water use efficiency and water conservation efforts that should reduce water supply demands. 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 pathway 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. These adjustments include both watershed-wide adjustments and tributary-specific adjustments. The tributary-specific water supply adjustments would allow for additional adjustments in rainfall-dominated and municipal supply-dominated tributaries, including Putah Creek.

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247	22a	NOTHING IN THE SWRCB PLAN THAT RELEASES OF WATER IN THE AMOUNTS OF UNIMPAIRED FLOWS DIVULGES THAT THE REAL PURPOSE OF THE "PLAN" IS TO VOID ESTABLISHED ORDERS OF THE BOARD AND COURTS REGARDING WATER RIGHT PRIORITY. THIS PLAN ATTEMPTS TO CREATE A NEW WATER RIGHT AND PRIORITY FOR ENVIRONMENTAL PURPOSES. THAT PLAN IS NOT LAWFUL. The Solano Project place of use is land within Solano County and areas adjacent to Solano County. Decision 869 authorizing Lake Berryessa includes no purpose of use of permitting Solano Project appropriated water to be employed relieving water right duties of the SWP or CVP. There is no authority to the junior priority of the CVP and SWP projects and their duty to first provide water for Delta flows required by the SWRCB before senior water right holders. The Board itself conditioned the Bureau of Reclamations rights to appropriate and store Sacramento River water at Shasta Dam upon first meeting and recognizing the rights of prior appropriators and riparian right holders. Decision 990 term 22 subjects the United States to "rights initiated by applications for use within said watershed and Delta regardless of the date of filing said applications. (Decision 990, term 22.) The Solano Project is a senior right to the CVP duties to make water available for fish and wildlife use. The Department of Water Resources and the State Water Project are subject to the same limitation and priority through Water Code Section 11460. In granting authority to the SWP to utilize applications with priorities in the 1920's through state filings, the SWP remains subject to the priority of local users through the County of Origin Act found in Section 10505 of the Water Code. A Water Quality control plan that now purports to ignore these legal priorities and does not discuss them as part of the "baseline" and then purports to announce that 55% of the unimpaired flow is to flow to the Delta and San Francisco Bay to relieve the SWP and CVP of their junior priority and specific Board orders regarding Delta releases does not comply with	Please refer to the response to comment 247-2.

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		CEQA/SED requirements or the law. The baseline is not being properly described, nor the changes in environmental conditions likely because of the unimpaired flow Project. A project description must be clear and accurate to allow informed comparisons. (County of Amador v El Dorado County Water Agency (1999) 76 Cal.App.3d 931, 955; Santiago County Water District v County of Orange (1994) 118 Cal.App.3d 818, 829.).	
247	22b	In Decision 869 regarding flows in Putah Creek, the SWRCB did not assign a portion of the water rights to the Bureau for use in the Delta or San Francisco Bay for water quality repulsion of salt water or instream water quality uses. Instead, the Board states in term 19 of Decision 869, referring to the member entities of the Solano Project: ... such public agencies on behalf of landowners and other water users ... have the permanent use of all water appropriated and beneficially used hereunder ... which right shall be appurtenant to the land to which said water shall be applied ... ? Until the SWRCB holds a hearing and amends term 19, no authority to adopt any other purposes or place of use for Putah Creek water exists	Please refer to the response to comment 247-2. Adopted in 1957, D-869 was subsequently amended by Water Right Orders 76-13, 79-14, 79-26, 81-11, and 84-7. The permits issued thereto contain standard reservation of jurisdiction and continuing authority language. More specifically, the continuing authority language in Permit 10659 and Licenses 13876 and 13877 includes the following: “The quantity of water diverted under this right is subject to modification by the State Water Board if, after notice to the right holder and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that: (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.” Proposed changes to the Bay-Delta Water Quality Control Plan (described in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report) are pursuant to division 7 of the Water Code, specifically Article 3, section 13143, which states: “State policy for water quality control shall be periodically reviewed and may be revised.” This comment conflates the Plan amendments with the future implementation of those Plan amendments in a water right or water quality proceeding. These two processes are distinct. As described in Common Response 1.2, Water Quality Control

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			Planning Process, in the Plan amendments, the State Water Board sets water quality objectives and establishes a program of implementation for achieving those objectives, including specific measures or recommendations for appropriate action by certain entities. Adoption of the Plan amendments, however, does not impose enforceable flow requirements, even though state agencies are generally obligated to comply with water quality control plans. As explained in the Program of Implementation in the Bay-Delta Plan, the State Water Board would impose enforceable obligations to implement the water quality objectives in the Plan amendments in one or more future proceedings involving the exercise of the State Water Board's water right or water quality authority (also known as quasi-adjudicative or quasi-legislative authority).
247	22c	The proposed Water Quality Control Plan and CEQA/SED study examining the significant impacts and alternatives to the proposal violates the rule of priority for yet another reason. The Protected Areas Statute enacted in 1984 prohibits any "applications" for water which would cause water (either surface water or groundwater) to be taken or exported out of the Sacramento watershed. Of course, this "plan" fails to mention that a change in purposes of use, place of use, and terms will be required in the permits and licenses for the Solano Project if the plan is to be implemented in regard to stored water which would violate this statutory provision. (Water Code Section 1215.6.) The theory of the authors of the Plan is that unimpaired flows in some way "fall out" of the permits and licenses granted and no new appropriation is being approved. This is counter to the law and an improper description of the baseline conditions since permits and licenses for direct diversions and storage have already been issued for the benefit of Solano Project Member Units. (see term 19 of Decision 869.).	Water Code section 1215 applies to water suppliers exporting water for use outside a protected area pursuant to applications to appropriate surface water or groundwater filed or initiated after 1985 that are not subject to Water Code section 11460. Water Code section 1217, subdivision (e) provides: Nothing in this section shall be construed as a limitation on the authority of the board to establish water quality standards or to subject water right entitlements to terms and conditions for the protection of reasonable and beneficial uses consistent with the provisions of Section 2 of Article X of the California Constitution.
247	23	CONCLUSION The attached discussion [see Attachment 1, 2] of further legal requirements and deficiencies is incorporated herein in full and applicable not only to the Putah Creek watershed but to all other water resources proposed to be altered or modified by 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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		proposed Water Quality Control Plan. The comments of all other participants and commenting parties are adopted and incorporated in these comments in order to preserve and emphasize that administrative remedies have been fully exhausted should the Board not choose to remedy the defects cited.	
247	24	[Attachment 1: Water Service Agreement between Anheuser-Busch Inc. and the City of Fairfield, 1989]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
247	25	[Att. 2:] Question No. 1: Are there baseline conditions in regard to provision of water for urban consumption from the Solano Project supplies that would be disrupted and harmed by a requirement that carryover supplies be maintained in Lake Berryessa of a target of 1,000,000 acre-feet and a carryover requirement amount in storage of at least 900,000 acre-feet to preserve cooler temperature water for fish life and instream uses? (Pgs. A1-16, CEQA/SED Draft.) Answer No. 1: Yes. Attached as Exhibit "B" [Attachment 2 of Attachment 2] is a Drought Measures Agreement that was entered into by all Solano County Member Units in 1999 and has been performed by each Member Unit since to the best of my knowledge. The terms of that agreement provide for conservation of water in storage in Lake Berryessa so that Cities and the District may create voluntary carryover accounts which are protected and available in years when State Water Project deliveries or other sources are reduced due to drought and water is required for continued human consumption. The Drought Measures Agreement between these cities and SID also requires non-voluntary or compulsory reductions in deliveries if Lake Berryessa Reservoir storage levels range between 550,000 and 800,000 acre-feet (paragraph 5.1), far less than the 900,000 acre-feet proposed in the draft plan and CEQA/SED. The Drought Measures Agreement provides for mandatory restrictions on use of carryover water when storage falls below	Please see the response to comment 247-11 for an explanation of the purpose of the carryover storage targets. The State Water Board's Sacramento/Delta updates to the Bay-Delta Plan are separate and distinct from any other plan or agreement between third parties. It is possible that water user agreements would need to be revised in response to changes in flow requirements. However, any attempt by the State Water Board to predict third-party revisions as part of the Staff Report's environmental analysis would be speculative and outside the scope of the Bay-Delta planning effort. Please refer to Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements.

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		450,000 acre-feet and when storage in Lake Berryessa falls below 400,000 acre-feet. The Agreement provides for development and implementation of a voluntary agricultural fallowing program to develop water for emergency domestic and commercial use. (paragraphs 5.6 and 5.8.) In my opinion and experience, the Drought Measures Agreement provisions are inconsistent with and would be unavailable if a 1,000,000 acre-feet target and a 900,000 acre-feet storage carryover requirement was adopted by the SWRCB either for reliability of deliveries to the environment of unimpaired flows or to achieve certain temperature requirements on released water flowing in Putah Creek or elsewhere under an unimpaired flow requirement. The efforts of the Member Units to coordinate water use and store water for drought periods and for SWP shortages would be destroyed and blocked by the SWRCB measures and requirements.	
247	26	[ATT 2:] Question No. 2: How does the requirement that Lake Berryessa carryover storage be maintained at a level of 900,000 acre-feet in the proposed SWRCB Water Quality Control Plan conflict with the existing Extended Drought Operations Agreement between all Member units of the Solano Project? Answer No. 2: The Drought Measures Agreement provides for the development of additional reliable yield for all Solano Project Users at every storage mark and the voluntary and mandatory measures agreed to in that Agreement will extend the availability of Solano Project Water if enforced during an extended drought. The SWRCB's proposed condition in its water quality plan that 900,000 acre-feet be preserved in storage makes the cooperative agreement between the Solano Member Units impossible to perform and will result in more reductions to Solano city users and agricultural users of Solano Project water delivers and effectively makes the difference between the storage levels of 400,000 and 900,000 acre-feet in Lake Berryessa unusable for making water reliably available. The SWP deliveries from the North Bay Aqueduct relied upon by the cities of Fairfield, Vacaville, Vallejo, and Benicia for a portion of their supplies have proven to be much less dependable than	Model results are presented as worst case scenarios that do not utilize flexibility in the Plan for adaptive implementation and local cooperative solutions. Provisions for adaptive implementation of the numeric inflow requirements are provided to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat and inflow-based Delta outflow requirements. The State Water Board also plans to develop appropriate provisions to address human health and safety needs and other possible reasons for short-term and long-term exceptions to curtailments to allow continued diversions for minimum human health and safety water supplies where alternate supplies are not available. As described in Appendix A1c, Preliminary Assessment of Effect of Reservoir Storage on Reservoir Release Temperatures, there was very little publicly available water temperature data for Lake Berryessa at storages below 1,000 TAF therefore 900 TAF was estimated as an initial carryover target to maintain release temperatures amiable for cold water fisheries. However, this initial estimate has been refined to include a lower range of storages as described in the December 2025 draft of the Water

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		originally projected at the time of the development of the North Bay Aqueduct. Shortages in those SWP deliveries occur at the same time as storage in Lake Berryessa must be available to supply additional amounts to the cities to make up for the reductions in SWP water deliveries. The provisions of the Extended Drought Measures agreement allowed SWP water to be taken and utilized by those cities in water plentiful years from the SWP deliveries and permitted Solano Project water to be conserved and stored in Lake Berryessa in greater amounts during those same years ... a type of coordinated or conjunctive storage use. When SWP water deliveries were curtailed, the additional amounts stored in Lake Berryessa would be used and available for use in later years. A requirement of a carryover of at least 900,000 acre-feet (and a target of 1,000,000) would prevent the cities from utilizing their SWP deliveries to preserve water in storage for future drier years in Lake Berryessa. This removal of baseline flexibility is, in my opinion and based upon my experience, a significant potential environmental impact from the new regulation and plan which does not appear to be considered in the Draft Plan of the CEQA/SED submitted by the SWRCB. A full hydrologic model, operating the cities' SWP deliveries, the Solano Project deliveries, and examining the environmental impacts of the proposed new requirement (and alternative requirements) should be performed as part of the CEQA/SED to maximize the reasonable and beneficial use of water and understand the effects of the inadvertent destruction of the Drought Measures Agreement that the SWRCB Plan will cause.	Quality Control Plan Section 4.4.2, Sacramento/Delta tributary inflow, cold water habitat, and delta outflow objectives. SacWAM does include a representation of the SWP deliveries from the North Bay Aqueduct and the deliveries from Lake Berryessa through the Putah South Canal. The Staff Report includes impacts of changes in supply on municipalities under Impact UT-d in Section 7.20.3, Impact Analysis. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. This includes discussion on the regulatory pathway implementation of the cold water habitat objective. Please also see Common Response 4.2, Drought and Climate Change, for discussion on drought response measures, and Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for information on the scope, scale, and application of SacWAM.
247	27	[ATT 2:] Question No. 3: To provide an example of unexamined impacts, SID utilizes Solano Project water to serve the city of City of Suisun city. The required reduction in Solano Project water deliveries every year and the 900,000 acre-feet carryover storage requirement will require that new connections be denied for residential service and some form of rationing to the approximately 8,600 existing connections of residences already made occur. This is a baseline condition which would be impacted and changed by a requirement that 900,000 acre-feet of carryover storage be maintained in Lake Berryessa or a requirement that the Member Units, including SID, reduce the	The Staff Report discloses that some service providers could experience reductions in water supply, potentially requiring the construction or expansion of new water treatment facilities or water supply infrastructure, the environmental impacts of which are disclosed in Section 7.22.2, Evaluation of Potential Environmental Impacts. In Section 7.20, Utilities and Service Systems, the State Water Board determined that impacts on service providers could be significant even if proposed mitigation was applied (Impact UT-d). In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. In addition to the proposed Plan

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		amounts of water available in all years to achieve the amounts of unimpaired flow (35% to 45%) dictated by the new requirements. Answer No. 3: Yes. If implemented, those requirements will render it impractical to continue to make Solano Project water available from SID to allow new residential connections. Similarly, other Solano Project contractors will not be able to build up storage in Lake Berryessa by treating and using SWP water in water plentiful periods from storage of SWP water and helping municipalities with Solano Project delivery to cities such as Benicia in SWP supply reduction years. All of SID and those cities will suffer significant reductions in their own annual receipt of Solano Project water to meet the unimpaired flow standard in all years. Development of voluntary or involuntary carryover supplies in Lake Berryessa when Lake Berryessa is in storage ranges of between 450,000 acre-feet and above as provided in the Drought Measures Agreement is the only practical means to continue to make transfers available to cities such as Benicia when SWP supplies are curtailed. The SWP significantly restricted the water supply available to Benicia in the following years are: [see Exhibit 1 of Attachment 2]	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 tributary-specific water supply adjustments would allow for additional adjustments on rainfall-dominated and municipal supply-dominated tributaries, including Putah Creek and the Mokelumne and Calaveras Rivers, that would allow for more frequent reductions in the required flow levels within this range, as well as no new flow requirements during the driest conditions. As described in Section 13.4.2.1, Sacramento Water Allocation Model (SacWAM) General Updates, of the 2025 partially recirculated draft Staff Report, modeling of Lake Berryessa reservoir operations were also modified and resulted in changes to the modeled storage levels under the flow scenarios. See Section 13.7.20, Utilities and Service Systems, for the analysis of impacts of the regulatory pathway of the revised proposed Plan amendments on municipal water supplies. Please also see Common Response 1.2, Water Quality Control Planning Process, for discussion of the State Water Board's consideration of factors listed under Water Code section 13241.
247	28	[Exhibit 1 of Attachment 2: Table described as water supply available to Benicia in the following years]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
247	29	[ATT 2:] The cities of Vallejo, Fairfield, and Vacaville, in addition to suffering a 35% to 45% reduction in Solano Project deliveries due to unimpaired flow requirements will not be able to use and store abundant SWP deliveries by conserving Solano Project water in those years of abundant SWP deliveries. Those acts of balancing SWP deliveries in some years with the long terms reliability of Lake Berryessa storage would not be permitted or possible if surface water deliveries are reduced by approximately 35% to 45% in all years and if the 900,000 acre-feet carryover requirement is imposed. Again, this is a baseline condition which is being changed dramatically and there is no explanation of how other Solano County cities are to be supplied	Please see the response to comment 247-27.

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		water for existing demands, which is a significant environmental impact and one that would create cumulative impacts if it occurs.	
247	30	[ATT 2:] Question No. 4: How will the proposed Project impact the groundwater recharge and overdraft conditions of SID and adjoining areas? Are those impacts adequately described and quantified? Answer No. 4: I have had an opportunity to review the conditions of the groundwater aquifer underlying the Solano Irrigation District and surrounding areas in the 1940's and 1950's. That groundwater aquifer declined more than 60 feet in elevation because of overdrafting and pumping in excess of recharge. Part of the purposes of the Solano Project was to provide for substituted recharge to correct the overdraft by utilizing surface water to supply irrigated crops and reducing groundwater pumping. The plan included storing groundwater in the Putah Creek Fan in the Solano Subbasin for water deficient years, even though that meant (and the condition has actually occurred repeatedly since the 1970's) that the costs of creating a groundwater mound underlying SID at elevations in excess of elevations that might naturally exist might include leakage or migration of the stored groundwater into overpumped areas adjacent to the SID surface water delivery area located near Putah Creek or easterly of the Solano Irrigation District boundaries which area has no surface water supplies. The District operates a number of groundwater wells and routinely, since the 1960's, annually sets its charges and rates for surface water to manage the substituted recharge amounts and maintain reasonable amounts of groundwater storage underlying the District. A groundwater adjudication has not been necessary at this date because of this management. The City of Dixon (population of approximately 19,000 persons) utilizes underwater alone and depends upon the substituted recharge program and management of SID.	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.
247	31	[ATT 2:] Question No. 4.1: If an approximate 35% to 45% reduction in annual water supplies for all Solano Member Units, including SID, was implemented to achieve a 55% unimpaired flow standard between January and June on Putah Creek, would significant environmental impacts related to groundwater arise from that reduction alone, disregarding the effects of any	Please see response to comment 247-13. The commenter relies upon the Declaration of Paul Fuschlin, who is the point of contact for the Solano Irrigation District GSA. The State Water Board acknowledges that user response to reduced Sacramento/Delta supply may affect groundwater.

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		imposition of a carryover storage requirement? Answer No, 4.1: Yes. A reduction of agricultural and domestic supply of approximately 35% to 45% amounts to approximately 49,000 to 63,000 acre-feet per year from Solano Project deliveries to SID. Corresponding reductions in urban water supplied and agricultural supplies would be required. These reductions in surface water available for irrigation use would require that either the District would be required to encourage private landowners with wells for irrigation supplies to pump more water, or pump more water itself to make up the shortfall to agriculture. No such mitigation measure is available for the reduction of urban uses (approximately 17,825 acre-feet out of 141,000 acre-feet/year). The effect would be that the storage of groundwater in anticipation of dry year conditions would be dissipated and, over several years, groundwater conditions will again fall into an overdraft condition because of increased groundwater use. The reason is that there are only limited direct recharge possibilities in water plentiful years. The only means of maintaining groundwater reserves is substituted recharge by supplying Solano Project water to agriculture. The reduction in surface water availability due to the proposed Water Quality Control Plan means that any of three significant environmental impacts will, in my opinion, arise and be caused: (a) It would be necessary to commence and maintain an expensive program of groundwater pumping regulation. I am informed by the District's attorneys that this could probably be accomplished, only through an adjudication, regulating the amounts of groundwater pumped both for lands within SID and those wells near Putah Creek and east of the District boundaries that are currently "draining" the stored groundwater arising from substituted recharge by SID. This regulation would reduce the number of acres farmed; and/or	These responses likely include increased groundwater pumping as a substitute supply (where available and not locally restricted), and reduction in applied irrigation water, including from increased water use efficiencies, which would reduce incidental groundwater recharge. The impact analysis for groundwater in Chapter 7, Environmental Analysis, identifies potentially significant impacts to groundwater supplies or levels and acknowledges that reductions in applied irrigation water can substantially reduce groundwater recharge (Impact GW-b). Water quality impacts are another potentially significant impact (Impact GW-a and Impact GW-f) to groundwater resources. The potential impacts to groundwater resources could be reduced through the Mitigation Measures (MM-GW-b and MM-GW-a,f) discussed in Section 7.12.2.4, Mitigation Measures. Groundwater adjudication is not the only tool for regulating groundwater pumping. As the Declarant, Mr. Fuschlin is aware, SGMA provides GSAs numerous authorities including empowering them to require the registration of extraction facilities, metering, and to control groundwater extractions (Water Code sections 10725.6, 10725.8, and 10726.4.). In addition, SGMA, GSAs may impose fees on groundwater extraction to fund expenses incurred to attain groundwater sustainability within their respective basins (Wat. Code 10730-10731). The Declarant also appears to be relying upon the advice of "the District's attorneys" for the Declaration, who are in turn relying upon the Declaration. For potential impacts on groundwater levels, local groundwater management pursuant to SGMA could reduce or eliminate groundwater impacts. While the State Water Board can ensure that mitigation is implemented for actions within its authority, the State Water Board cannot guarantee that measures by other agencies will be adopted or applied in a manner that fully mitigates the impacts. Therefore, unless and until the mitigations are fully and successfully implemented, the impact to groundwater levels (Impact GW-b) remains potentially significant. Section 7.4, Agriculture and Forest Resources, describes the environmental setting, potential impacts, and mitigation

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			measures for agriculture and forest resources impacts that may result from changes in hydrology or changes in water supply. For agricultural resources, the impact analysis focuses on conversion or the permanent change in land use from agricultural use to non-agricultural use. Please see the discussion on the potentially significant impact of conversion from agricultural to non-agricultural use (Impact AG-a) and other changes to the existing environment that may cause conversion of agricultural lands (Impact AG-e).
247	32	(b) In the alternative and perhaps in combination with the above measure, the District would be required to annually ration the surface water delivery available to agricultural areas served by SID to amounts which would be less than the crop needs and the water user needs to irrigate all land within the District. Each landowner would have to designate a share or portion of its land to be fallowed to achieve use of the irrigated lands' share of annual safe groundwater yield and surface water allocations. The District would have to raise charges to compensate for idled land. Water users outside of the District boundaries without access to District surface water supplies would be required to fallow a substantially greater portion of their farmable land to equate pursuant to the adjudication requirements to the use of allocated groundwater yield shares. Financial stress and disruptions of the agricultural service economy will occur since there is no financial mitigation plan. Limiting groundwater pumping to replace lost surface water would be required in areas adjacent to SID; and/or	Please see responses to comments 247-13 and 247-31. The proposed Plan amendments do not encourage or require increased groundwater pumping. The Staff Report acknowledges increased groundwater pumping as a reasonably foreseeable response action to reduced Sacramento/Delta water supply. Potentially significant impacts to groundwater and to agriculture as discussed in Section 7.12.2, Groundwater and Section 7.4, Agriculture and Forest Resources. As explained in Section 7.4, because of the uncertainties about groundwater availability and water users' response to reduced Sacramento/Delta supply regarding groundwater pumping, a range between two bookends or bounds are evaluated: maximum replacement groundwater pumping and no replacement groundwater pumping. Under maximum replacement groundwater pumping, it was assumed that growers could use groundwater in addition to local water supplies to offset some or all Sacramento/Delta supply reductions. Importantly, this is not a directive that farmers and ranchers should or would replace Sacramento/Delta reductions with groundwater pumping, especially in light of requirements to achieve sustainability in basins subject to SGMA, but a good faith attempt to capture the potential maximum impacts on the groundwater basin from replacement pumping. For no replacement groundwater pumping, it was assumed that groundwater would not be available to replace reductions in surface water availability beyond current use under the baseline condition. Similarly, this is not an assumption about groundwater demand management in any particular basin, for example under SGMA, but a good faith attempt to model the potential lower limit of groundwater pumping. In this way, the analysis captures the breadth of likely responses, which would

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			be somewhere in between—meaning that water users likely would increase groundwater pumping to replace some amount of the reduced surface water supplies, but not at volumes sufficient to replace all of the reduced surface water supplies. Groundwater mitigation measures (MM-GW-b 1 through 7) are discussed in Section 7.12.2.4 and Section 7.4.4, each titled Mitigation Measures. While the State Water Board can ensure that the mitigation measures are implemented for actions within its authority, other mitigation measures are largely within the jurisdiction and control of other agencies or depend on how water users respond to changes in hydrology or water supply. Accordingly, the State Water Board cannot guarantee that measures will always be adopted or applied to fully mitigate potential agricultural impacts. Therefore, unless and until the mitigation is fully implemented, the impacts remain potentially significant. The comment relies upon the Declaration of Mr. Paul Fuschlin, who is the point of contact for the Solano Irrigation District GSA. As Mr. Fuschlin is aware, 247 SGMA provides a framework or “toolbox” of authorities for Groundwater Sustainability Agencies (GSAs) to sustainably manage groundwater basins, including the power to limit groundwater extractions, measure groundwater extraction volumes, acquire water rights, construct facilities, and import surface water (Wat. Code §§ 10726.2, 10726.4). Limiting groundwater extractions is one tool, but SGMA does not require or mandate the use of any tool or program fee structure. Instead, SGMA requires GSAs manage groundwater sustainably, for long-term reliability and multiple benefits, through the development and implementation of Groundwater Sustainability Plans (GSPs) (Wat. Code § 113). Please also see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more discussion of how the Sacramento/Delta update to the Bay Delta plan aligns with the implementation of SGMA.
247	33	(c) There is substantial information indicating that users located adjacent to Putah Creek are perhaps utilizing, through surface water delivery systems or through wells which divert substantial amounts of Putah Creek surface water flows into shallow	Please see responses to comments 247-13, 247-31, and 247-32. The Solano County court judgment known as the Putah Creek Accord acknowledges the potential for downstream riparian

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		aquifers, in excess of their legal allocation of the Putah Creek natural flows and their legal allocation of groundwater yield. That information indicates those users are probably receiving and using greater amounts of water than they are lawfully entitled to. Those additional amounts are replaced currently by greater releases from Lake Berryessa storage. An adjudication and watermaster to govern these uses may be required by the greatly reduced surface water available from the Solano Project. The Settlement Agreement with the Putah Creek Council and University of California, to maintain flows in Putah Creek will probably have to be terminated as to the period June 30 through December 31, destroying substantial elements of that Agreement and effort to create a salmonoid fishery.	diverters to divert amounts exceeding their correlative riparian entitlement, which excludes storage releases from Lake Berryessa. However, it also states that “It would be impossible to conceal a significant diversion for very long because the pumping equipment and power supplies are large ... and because the effects of the diversion will be detected by the stream flow monitoring program” (Regents of the University of California’s Cross Complaint in Solano Irrigation District et al. v. the Names of All Appropriative Water Right Holders, et al., Solano County Superior Court No. 108552, Exhibit A-2, p. 9). The Accord provides for monitoring and quantification of diversions to ensure that riparian diverters remain within their allocated amounts. If excess diversions are not corrected, Solano County Water Agency may seek court-ordered assistance to obtain compliance (id, pp. 9, 10). Given the legal proceedings required to reopen/re-adjudicate the court judgment, the commenter’s assertion that the settlement agreement would have to be terminated for the period of June 30 through December 31 to implement Sacramento/Bay-Delta Plan flow objectives and Lake Berryessa carryover storage requirements is speculative. The comment relies upon the Declaration of Mr. Paul Fuschlin for the assertion that “groundwater conditions will be allowed to fall into a condition of overdraft because of increased groundwater use.” This appears unsupported when the Declarant, Mr. Fuschlin, is the point of contact for the Solano Irrigation District GSA, which is required to ensure that the Subbasin is sustainably managed in accordance with SGMA.
247	34	[ATT 2:] I am informed and believe and, on that basis declare, that in my opinion, any or all of the conditions described in subparagraphs (a), (b), and (c) above are reasonably likely to be caused by the proposed Project of the SWRCB's proposed Water Quality Control plan provisions and 55% unimpaired flow requirement and carryover storage requirement of 900,000 acre-feet and are likely to cause significant environmental impacts. Economic and efficient means of mitigating and minimizing the environmental harms from the baseline conditions which exist now must be examined. If all of those environmental effects cannot be avoided, an overriding consideration determination	Please see the responses to comments 247-13, 247-31, 247-32, and 247-33. Potentially significant environmental impacts and proposed mitigation measures are disclosed in Table 1-1 and discussed thoroughly in the Staff Report. Please see the above responses to comments 247-10, 247-32 and 24733. Also see Common Response 7.1, General CEQA and Approach to the Analysis, for discussion of how the Staff Report meets CEQA requirements. The revised proposed Plan amendments were developed to improve flow and water quality conditions over a large

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		must be made by the SWRCB to implement some of the mitigation conditions and accept some of those significant environmental impacts and detriments. The CEQA/SED does not consider these matters or measures and provides no description of facts sufficient to support an overriding consideration determination that the significant impacts should be accepted.	geographic area, and particularly for fish and wildlife beneficial uses in the Sacramento River watershed, Delta eastside tributaries, and Delta regions (Sacramento/Delta). The State Water Board recognizes that providing instream flows for the environment necessarily results in less water available for other uses. Providing balanced protection of all beneficial uses of water is vitally important and requires careful consideration, and the State Water Board has been particularly sensitive to supply impacts to municipal use. The Staff Report presents a worst-case scenario for supply reductions to ensure that impacts are adequately disclosed. However, the revised Plan contains provisions for adaptive implementation of the numeric inflow requirements to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts. The State Water Board also plans to develop appropriate provisions to address human health and safety needs and other possible reasons for short-term and long-term exceptions to curtailments to allow continued diversions for minimum human health and safety water supplies where alternate supplies are not available. 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 may greatly reduce the impacts to users specifically on the Mokelumne River and Putah Creek as implementation is phased in. 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.
247	35	[ATT 2:] Question No. 5: Currently, the Solano County Water Agency operates water releases from the Solano Project to develop a salmonoid experiment in a portion of Putah Creek not normally expected to sustain salmonoids pursuant to a Court settlement of certain litigation with non-governmental agencies	The State Water Board is not a party to the 2000 Putah Creek Accord and is not bound by its terms or any other third-party agreements. Any changes to third-party agreements as a result of the updated Bay-Delta Plan are speculative and not a reasonably foreseeable effect of this project. The State Water Board is

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		and the University of California filed in approximately 1992 and settled in 2000. Flows are released to maintain water conditions in an area of Putah Creek during the summer and fall months to allow and improve habitat for anadromous fish species in a portion of Putah Creek downstream of Solano Diversion Dam. The water for those flows is released in part from the yield available from the Solano Project available to the Solano Project Member Units pursuant to those agreement terms and not charged to any Solano Project contractor directly. The 2000 Settlement Agreement with the Putah Creek Council and others states: 9. Term.... Supplemental flows set forth in Section C of Exhibit A hereto ... shall be subject to amendment by the SWRCB or a court of competent jurisdiction ... and the provisions of Section 10 shall cease to apply and be of no further force or effect.... That Agreement is thus terminable if conditions change as a result of SWRCB orders. The Water Control Plan is such an order. Why doesn't the Plan explicitly examine the environmental impacts to this existing fishing plan from the Board's proposed new Water Quality Plan? Answer No. 5: There will be insufficient water to permit releases in the July 1 through December 31 period to support that Agreement's flows because so much water is to be released as instream flows January I through June 30. This baseline condition and its possible termination because of the inconsistency of and burden upon water supplies of the SWRCB Project of a new proposed Water Quality Control Plan condition of unimpaired flows in the period of January to June of 55% and the requirement of at least 900,000 acre-feet of carryover storage on April 1 to maintain fishery temperature goals, each of which will exhaust water supplies available for use in other periods of July 1 to December 31 and is inconsistent with and conflicts with the terms of the 2000 Agreement with Putah Creek Council in Putah Creek Council, et al. v. Solano Irrigation District, et al. The environmental impacts of this conflict is not examined as a potential significant environmental impact of the SWRCB Water Quality Control Plan and alternatives or mitigation	considering the proposed 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 comments on other projects. 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 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 8-year term with the possibility of extension that reduces the required flow contributions for VA water rights.

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		measures to this impact are not considered in the CEQA/SED Draft.	
247	36	[ATT 2:] Question No. 5.1: Based upon my understanding of the amounts of water being released to maintain this fishery habitat under the Agreement with the Putah Creek Council during the period June 30 through December 31 of each year, if the amounts of surface water delivered to the Member Units are reduced by approximately 35% to 45% annually to comply with the proposed SWRCB Water Quality Control Plan requirements of 55% unimpaired flow, will it be possible to continue the releases of water specified in the Putah Creek settlement agreement to resolve litigation to maintain habitat for anadromous fish with those releases? Answer No. 5.1: No. The releases will have to be terminated under the agreement terms because of the deficit in surface water flows available as a result of the new requirements placed upon Solano Project members and because of the 900,000 acre-feet carryover requirement. It is likely, I am informed and believe on the basis of estimates of water available, that the voluntary agreement to make releases and pulse flows to maintain conditions beneficial for a salmonoid project in Putah Creek will have to be terminated simply because during drought periods, there will be no supply available to meet the flow requirement of the Putah Creek Settlement Agreement agreed to by the Solano Project members. If the carryover storage requirement is an absolute requirement, the additional releases required for the Putah Creek Council settlement may be barred for the fishery enhancement experiment as can be seen from the answer in paragraph Answer No. 6 hereafter, since additional releases would not be available during periods when storage fell below 900,000 acre feet and which will occur more frequently because of unimpaired flow releases in January through June. The CEQA/SED does not identify or examine these impacts.	Please see the response to comment 247-35.
247	37	[Att. 2:] Question No. 6: If the carryover storage requirement of 900,000 acre-feet had been in effect since 1972 for the Solano Project, and deliveries to Solano Project contractors were to be curtailed to avoid not maintaining carryover storage in less than that amount, for what periods would all deliveries to Solano Project contractors have been halted even if the use below	Please see the response to comment 247-11 for an explanation of carryover storage targets.

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		900,000 acre-feet storage was of water conserved by those contractors in prior water years from their own deliveries? Answer No. 6: The chart attached as Exhibit "C" [see Attachment 3 of Attachment 2] shows the number of occasions that the storage has fallen below 900,000 acre-feet and the extensive periods that that storage capacity below 900,000 acre-feet has been maintained below that level. [Also see Exhibit 3 of attachment 2].	
247	38	[Exhibit 3 of Attachment 2: Table described as number of occasions that the storage has fallen below 900,000 acre-feet and the periods that that storage capacity below 900,000 acre-feet has been maintained below that level]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
247	39	[ATT 2:] Question No. 6.1: As an engineer familiar with the historic drought patterns documented for Putah Creek prior to construction of Lake Berryessa, does a series of significant environmental impacts arise to water users in Solano County from any new requirements of a water quality control plan prohibition upon use of storage capacity between approximately 400,000 acre-feet and approximately 900,000 acre-feet in Lake Berryessa which has not been examined in the SWRCB CEQA/SED? Are there alternatives to be considered to such a prohibition or limit which are not examined in that CEQA/SED Draft? Answer No. 6.1: Yes. Simply put, as one can see from the chart attached as Exhibit C (see Exhibit 3 of Attachment 2] the construction and availability of storage capacity can be used to reduce the effects of drought period constraints or unavailability of water for human use, but a carryover storage requirement prevents use of water storage. With the long drought cycle of the Putah Creek watershed (much longer in years than the cycle experienced on the Sacramento River system) the sizing of the reservoir forming Lake Berryessa was chosen specifically for the purpose of using storage within the full range, without limitation of use of that storage capacity, to buffer or reduce drought impacts. As can be seen from the attached chart, not allowing the use of that storage space in that fashion creates significant environmental impacts.	Please refer to the response to comment 247-27. As described in Sections 6.2.2, Unimpaired Flow Scenario Assumptions, and 6.3.2, Reservoir Storage and Elevation, specific carryover storage targets were modeled and impact analyses based on the hydrological modeling include the impacts of these carryover storage targets. The impacts of other specific implementation measures were evaluated in Chapter 7, Environmental Analysis, of the Staff Report. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. Please refer to Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding carryover storage target ranges. See also Common Response 8.1, Economic Analysis and Other Considerations, regarding regional economic analysis, estimates of potential effects, and funding opportunities.

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		If the goal of the proponents of the unimpaired flow plan was to maintain certain temperatures upon release water by acquiring the use and reservation of certain storage amounts, some examination of the benefits and detriments of those assumptions should be provided. There is no balancing or even descriptions of the benefits and detriments of such a carryover storage requirement. At the minimum, the alternative sources of domestic water supplies to be provided to the citizens of Fairfield, Vacaville, and Vallejo should be identified. The alternative source for defense personnel working on Travis Air Force Base should be identified and the costs of paying farmers in SID to idle portions of their real property to free up water for the SWRCB project of unimpaired flows are not, to the best of my knowledge, examined in the SWRCB CEQA/SED study. The "rest of the Plan" must be unveiled by the SWRCB. If fishery and environmental use of carryover supplies is more important than maintaining domestic water supplies for residents, are new connections and homes to be prohibited? What is the SWRCB's plan?	
247	40	[Attachment 1 of attachment 2: Exhibit A from document titled Educational Background]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
247	41	[Attachment 2 of attachment 2: Exhibit B from document titled Solano Project Members' Agreement as to Drought Measures and Water Allocation]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
247	42	[Attachment 3 of attachment 2: Exhibit C from document titled Historical Lake Berryessa Storage Levels]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
248	1	Our analysis indicates that the Proposed Plan Amendment and Alternatives 2-5 (Unimpaired Hydrograph Alternatives) cannot be adopted without further development and review; we also recognize that the Healthy Rivers and Landscapes Agreements (Healthy Rivers Agreements), or Alternative 6, appear to be an	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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		alternative that can more effectively balance impacts to beneficial uses of water.	
248	2	Significant Water Supply Impacts The Staff Report generally assumes that cuts to Delta exports can be made up through developing new alternative supplies, demand reduction, turning to groundwater supplies, and relying on the transfer market. The data indicates that there would be a 28% reduction in SWP deliveries (Table A1-521) and a 15% reduction in San Francisco Bay Area regional municipal supplies (Table 7.20-8), compared to a 2% reduction in water supply for the San Francisco Bay Area, Central Coast, and Southern California regions due to the Healthy Rivers Agreements (Table 9.5-53). Valley Water is concerned that mitigations proposed by Staff Report for Unimpaired Hydrograph Alternatives water supply impacts will not be sufficient and the Staff Report and may have underestimated the magnitude of the impacts. The Staff Report's water supply analysis in section 7.20 relies on data and analysis from Valley Water's municipal retailers' 2020 Urban Water Management Plans (UWMPs). However, the data used to develop the 2020 UWMP does not reflect our current understanding of SWP and CVP water supply reliability based on more recent modeling provided by the Department of Water Resources (DWR), which includes updated climate change inputs and regulatory requirements. Based on the use of the UWMP, the Staff Report assumes that shortages would be avoided by making use of groundwater storage in Santa Clara County (i.e., pumping to "severe" levels) to make up for water supply cuts that would result from the Unimpaired Hydrograph Alternatives. As noted in our UWMP, drawing groundwater storage to the severe level may be needed during prolonged drought but does not represent a sustainable long-term groundwater condition. The Unimpaired Hydrograph Alternatives would lead to more severe shortages compared to those evaluated in Valley Water's UWMP, risking severe or chronic overdraft. This would increase subsidence risks and could lead to adverse impacts to other beneficial uses, as discussed below. As a result, the Staff Report likely underestimates the shortages that Valley Water would experience. The State Water Board should consider additional	The impact conclusions made in the draft Staff Report do not rely on the implementation of other water management actions and does not assume reductions in supply can and will be replaced with increased groundwater pumping. The Staff Report recognizes that the availability of replacement supplies may be limited. At the time of the preparation of the 2023 draft Staff Report, the 2020 UWMP data was the best available data regarding municipal water supplies and planning. UWMP's are updated every 5 years. The next update for the 2025 cycle must be adopted and submitted by July 1, 2026. Please see Common Response 3.1, Fish Protection, regarding the need to keep updating data, as well as Common Response 7.1, General CEQA and Approach to the Analysis, for the discussion of the level and scope of the analysis and consideration of impacts on individual entities. The groundwater analyses in Section 7.12.2, Groundwater, show that with changes in water supply, increased groundwater pumping and reductions in incidental groundwater recharge from applied irrigation could contribute to groundwater overdraft, particularly in areas where groundwater storage volumes are already in decline. While the State Water Board recognizes that the response to the reduction in Sacramento/Delta surface water supplies may be to pump (more) groundwater, the proposed Sacramento/Delta Update to the Bay-Delta Plan does not require or mandate an increase in groundwater pumping and nothing in the Staff Report requires groundwater pumping to be the response. Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for additional discussion of groundwater impacts and mitigation measures.

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		materials, such as the items cited in this letter, to fully evaluate the impacts to water supply under the Unimpaired Hydrograph Alternatives.	
248	3	Impacts to Silicon Valley Groundwater The Staff Report states the Proposed Plan Amendment (the Unimpaired Hydrograph Alternative that calls for 45-65% unimpaired flow volumes) will result in the San Francisco Bay Area receiving, in an average year, a 10-22% reduction in municipal water supply (Table 7.20-8). The Staff Report states that retailers will likely rely on groundwater supplies to meet demands more often if the Unimpaired Hydrograph Alternatives are implemented. However, reductions of this magnitude would impact Valley Water's surface water supplies, resulting in compounded impacts to groundwater supplies since imported water is used for both treated water deliveries and managed recharge. Routinely drawing down groundwater levels, without assurances that water will be available to quickly replenish the groundwater storage levels, greatly increases the risk of undesirable results, such as subsidence, across Silicon Valley. This is counter to Valley Water's successful conjunctive management strategy of keeping high-priority local groundwater basins at healthy levels during normal and wet years, with careful and moderate drawdown only during droughts or shortage. Valley Water manages local groundwater levels in accordance with the 2021 Groundwater Management Plan for the Santa Clara and Llagas Subbasins [Footnote 3: Valley Water's 2021 Groundwater Management Plan is the first periodic evaluation of the 2016 Groundwater Management Plan that was approved by DWR in 2019 as an Alternative to a Groundwater Sustainability Plan.] to avoid depletion of groundwater storage that could result in subsidence, chronic overdraft, seawater intrusion, and other undesirable results that occurred historically. This plan establishes the groundwater storage target at 300 TAF, which is equivalent to the "normal" stage of Valley Water's Water Shortage Contingency Plan. Not all the 300 TAF is usable storage, and if storage reaches the "severe" stage or lower stages, the risk of undesirable results is greatly increased. For example, during	The Staff Report recognizes groundwater levels (Impact GW-b) as a potentially significant impact and the mitigation measures (MM-GW-b) were discussed in the impact analysis for groundwater, found in Section 7.12.2, Groundwater. It is uncertain how all water users may respond to changes in water supply and affect groundwater. Local management of groundwater under the Sustainable Groundwater Management Act (SGMA) could reduce or eliminate impacts on groundwater, particularly in medium- and high- priority groundwater basins. As stated in the Staff Report, the State Water Board can ensure that mitigation is implemented for actions within its authority, other measures are largely within the jurisdiction and control of other agencies and depend on how water users respond to changes in water supply. In addition, the State Water Board cannot guarantee that measures always will be adopted or applied in a manner that fully mitigates the impact. Therefore, unless and until the mitigation is fully implemented, the impact remains potentially significant. The Staff Report provides a reasonable representation in capturing the breadth of likely responses to changes in water supply and identify potential maximum impacts on groundwater as a result of replacement pumping using the Statewide Agricultural Production (SWAP) model. The range of responses would lie between the over-estimated limits or two bookends, as discussed in Section 7.12.2, Groundwater. The minimum amount of groundwater pumping was defined to be no replacement groundwater pumping, where it was assumed that groundwater would not be available to replace reductions in surface water availability beyond current use under the baseline condition. Under the estimate for the maximum replacement groundwater pumping, it was assumed that growers could use groundwater in addition to local water supplies to offset some or all Sacramento/Delta supply reductions. As stated in Section 7.12.2, Groundwater, the maximum replacement groundwater pumping limits used in the SWAP analysis would likely overstate the actual amount of substitute groundwater pumping that would

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		the critically dry 2014, nearly 80 TAF was pumped from groundwater reserves, causing groundwater storage to fall from 328 TAF (“normal” stage) in 2013 to 248 TAF (“severe” stage) and several subsidence thresholds were exceeded. Valley Water’s 2022 Annual Groundwater Report [Footnote 4: Valley Water’s 2022 Annual Groundwater Report provides additional data for the State Water Board to consider:] highlights the importance of imported water supplies to provide managed recharge in our system. On average, each year imported water sources make up about 44% of the managed recharge, based on data from 2011-2019. Imported water also provides more than 90% of the water used for treated water deliveries, which is essential to continued groundwater sustainability because imported water deliveries have reduced the need for groundwater pumping by an average of 109 TAF per year between 2011 and 2019. As stated above, the water supply impacts in the Staff Report are likely underestimated and we infer the Staff Report assumed that Valley Water will routinely pull from groundwater sources, down to “severe” levels. That is not an acceptable assumption and is inconsistent with our approved Sustainable Groundwater Management Act (SGMA) plan. Until new alternative supplies are developed, the consequences of the Unimpaired Hydrograph Alternatives could lead to undesirable results including irreversible impacts to the communities prone to subsidence, which include portions of San Jose, Santa Clara, Sunnyvale, Mountain View, and Palo Alto. Preventing irreversible impacts to high-priority groundwater basins is of paramount importance and protects critical economic and public safety infrastructure.	occur as a result of the changes in water supply. Water users likely would increase groundwater pumping to replace some amount of the reduced surface water supplies, but not at volumes sufficient to replace all the reduced surface water supplies. The estimates should not be taken as an assumption about groundwater demand management in any particular basin or local management, for example under SGMA. The Sustainable Groundwater Management Act provides a framework or “toolbox” of authorities for Groundwater Sustainability Agencies (GSAs) to sustainably manage groundwater basins, including the power to limit groundwater extractions, measure groundwater extraction volumes, acquire water rights, construct facilities, and import surface water (Wat. Code §§ 10726.2, 10726.4). Limiting groundwater extractions is one tool, but SGMA does not require or mandate the use of any tool or program. Instead, SGMA requires GSAs manage groundwater sustainably, for long-term reliability and multiple benefits, through the development and implementation of Groundwater Sustainability Plans (GSPs) (Wat. Code § 113). Groundwater Sustainability Agencies (GSAs) are required to consider regulatory requirements on water resource related plan(s) may affect the GSP (Wat. Code § 10727.2(g)). GSAs are required to periodically evaluate GSPs and make necessary course adjustments to account for changing conditions or circumstances in the basin to achieve groundwater sustainability goals (Wat. Code § 10728.2). Please see Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, for a discussion on the interaction with the Sustainable Groundwater Management Act (SGMA) and the Sacramento/Delta update to the Bay Delta plan. Please also see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more discussion on SGMA and the overlap with the Sacramento/Delta update to the Bay Delta Plan.
248	4	Human Health & Safety Allocations Valley Water is the only water agency in California that contracts for imported water deliveries from both the SWP and the federal CVP. In the most recent drought, Santa Clara County relied	As identified in Section 4.4.3 of the revised proposed Plan amendments, the State Water Board will develop provisions to address human health and safety needs and other possible reasons for short- and long-term exceptions to curtailments associated with implementation of the Bay-Delta Plan. These

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		heavily upon human health and safety allocations from the SWP and upon similar public health and safety allocations from the CVP. These allocations were critical to ensuring groundwater levels never reached subsidence thresholds in Silicon Valley. A vital question regarding any alternative selected for the Bay-Delta Plan is whether imported water systems will continue to be able to provide critical human health and safety supplies during periods of extended drought. Water right curtailment regulations adopted by the State Water Board recognize the need to address human health and safety allocations. Valley Water urges State Water Board to protect these critical allocations under any selected alternative for the Bay-Delta Plan.	provisions may be informed by other relevant regulatory efforts, including the recent Emergency Curtailment and Reporting Regulation for the Delta watershed, to provide for consistency as appropriate.
248	5	Cumulative Impacts of the Bay Delta Plan Updates Not Disclosed The Staff Report does not consider the cumulative impacts of the Phase 2 Bay-Delta Plan updates alongside the impacts that would occur during implementation of the Phase 1 Bay-Delta Plan updates. If implemented, the Phase 1 Bay-Delta Plan updates will reduce supplies for Santa Clara County from the San Francisco Public Utilities Commission (SFPUC) Regional Water System by as much as 55% in drought years. These water supply impacts would be exacerbated by the Unimpaired Hydrograph Alternatives proposed in the Phase 2 Bay Delta Plan updates. The combined impacts of the Phase 1 and Phase 2 Bay Delta Plan updates would further reduce treated water deliveries to SFPUC water users in Santa Clara County, leading to increases in groundwater pumping in those regions and additional strains on groundwater storage supplies in our service area. Since the cumulative impacts of the Phase 1 and Phase 2 updates to water supply impacts, and therefore groundwater, are not disclosed, evaluated, or mitigated, the State Water Board should not adopt the Unimpaired Hydrograph Alternatives without providing additional CEQA analysis for public review.	Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, includes Section 7.23.1.2, Cumulate Project List, which is representative of the types of projects that may interact with the proposed Plan amendments including, specifically, the 2018 LSJR/SD Update to the Bay-Delta Plan. The Staff Report disclosed that implementation of the LSJR/SD Update could be a further constraint on supplies for water users that receive water from both the Lower San Joaquin River tributaries and the Delta. Therefore, the impacts of implementing the LSJR/SD Update are potentially cumulatively considerable to the Sacramento/Delta Plan amendments in the resource areas of agricultural and forest resources, air quality, biological resources, cultural resources, energy and GHG emissions, hydrology (which includes both surface water and groundwater), water quality, recreation, and utilities and service systems. The Staff Report concludes that both projects could also result in similar construction-related impacts, which would be potentially cumulatively considerable in the areas of geology and soils, hazards and hazardous materials, noise, and transportation. Valley Water's (formerly Santa Clara Valley Water District) 2020 Urban Water Management Plan (2020 Valley Water UWMP) (Valley Water 2021) estimated countywide water use at approximately 306,000 acre-feet. Valley Water states it "does not control or administer SFPUC supplies in the county, but their

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			supply meets some of the countywide demand.” Further, Valley Water states that the 8 retailers with SFPUC contracts “currently use less than their Individual Supply Guarantees” but projected up to 55,000 acre-feet of use by 2025. Valley Water anticipates that if “SFPUC supplies available to its wholesale customers are cut back significantly, the retailers with SFPUC contract may request increase their use of Valley Water supplies or increase groundwater pumping.” Valley Water does not speculate on the precise amount of any reduction due to changes in SFPUC supplies from implementation of the Bay-Delta Plan on the Tuolumne River but, instead, incorporates a “conservative investment approach for the future to be able to respond to water supply uncertainties such as this.” As detailed in Section 7.12.2.2, Environmental Setting, the Sustainable Groundwater Management Act (SGMA) (Wat. Code, § 10720 et seq.) requires that local agencies manage groundwater resources within a sustainable yield that avoids undesirable results, such as overdraft. Valley Water is statutorily designated under SGMA as the exclusive agency within its boundaries responsible for ensuring SGMA compliance (Wat. Code, § 10723, subd. (c)(1)(P)). According to the 2020 Valley Water UWMP, it manages two groundwater basins, the Santa Clara Subbasin (2-009.02) and the Llagas Subbasin (3-003.01). Valley Water is discussed in Section 7.12.2.2 and the Santa Clara and Llagas Subbasins are listed in Tables 7.12.2-5 and 7.12.2-7, respectively. The Staff Report environmental analysis (Impact GW-b) acknowledges that Valley Water relies on a blend of supplies including imported surface water and groundwater and that impacts from [the project] could be potentially significant. Mitigation measures are listed in Section 7.12.2.4, Mitigation Measures, with SGMA implementation (MM-GW-b) as a primary measure. In sum, the potentially cumulative impact of the 2018 LSJR/SD Update is disclosed and evaluated in Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, and potentially significant impacts on groundwater resources are disclosed and evaluated, including with potential mitigation, in Section 7.12.2, Groundwater, with Valley Water explicitly discussed. As detailed

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			in Section 7.12.2.3, Impact Analysis, the primary mitigation for potential impacts on groundwater resources is SGMA implementation which, here, is the responsibility of Valley Water as the exclusive agency. Nevertheless, the Staff Report acknowledges that the State Water Board cannot guarantee that measures will always be adopted or applied in a manner that would fully mitigate impacts and therefore discloses that the potential impact on groundwater resources remains potentially significant.
248	6	Healthy Rivers and Landscapes Agreements Alternative The Staff Report's data suggest that the Unimpaired Hydrograph Alternatives could potentially impact special status fish species due to the diminished cold-water pools in storage reservoirs. Unimpaired flow regimes would increase spring releases at the expense of reservoir storage levels in the spring-fall, which would diminish the ability to control temperature releases needed in key life stages. In some rivers, unfavorable conditions far outweigh favorable conditions, such as for steelhead holding and Winterrun Chinook salmon rearing on the Feather River. Such conditions could undermine the salmon doubling goal and intended benefits of the Unimpaired Hydrograph Alternatives.	Please see Common Response 1.2, Water Quality Control Planning Process, on the reasonable protection of beneficial uses; Staff Report Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, on the benefits of the proposed Plan amendments; and Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, on the modeling and implementation measures for the cold water habitat objective.
248	7	In comparison, the Healthy Rivers Agreements have traceable environmental flow commitments paired with physical habitat enhancements designed to address each tributary's unique hydrology, existing instream flow requirements, and limiting factors for special status species in their systems. As is acknowledged in the Staff Report, "a multifaceted approach is needed to address Delta concerns and reconcile an altered ecosystem," which aligns with the objectives of the Healthy Rivers Agreements, while providing fewer adverse impacts to 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.
248	8	In closing, Valley Water encourages the State Water Board to carry out side-by-side comparisons of each alternative, with the best available information for each impact category, to make an informed decision regarding the Unimpaired Hydrograph Alternatives. The impacts associated with Unimpaired Hydrograph Alternatives are beyond what our local resources could offset, and we estimate that significant unmitigable adverse impacts would occur in Santa Clara County, if adopted.	The Staff Report contains a comparison of each alternative in Section 7.24, Alternatives Analysis. Within this section, the alternatives are presented in sequential order and environmental impacts and economic effects associated with each alternative are grouped and described as changes in hydrology, changes in water supply, new or modified facilities, habitat restoration and other ecosystem projects, economic effects, and achievement of project purpose and goals. This

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		Meanwhile, the Healthy Rivers Agreements are an alternative that can balance beneficial uses and will result in a faster implementation process. Please know that Valley Water's commitment to reduce local demands, shore up local supplies, and develop alternative supplies will not stop if the Healthy Rivers Agreements are selected. We appreciate the State Water Board's dedication to protecting water resources for all Californians, evaluating extremely complex environmental conditions, and considering the needs of many stakeholders.	grouping allows for comparison of alternatives between each other along with comparison to the revised proposed Plan amendments which are analyzed in Chapter 13. The revised proposed Plan amendments include both a regulatory pathway, which retains certain aspects of the unimpaired flow approach described in the 2023 draft Staff Report, and a VA pathway, which contains certain aspects of the Healthy Rivers and Landscapes proposal. The regulatory pathway described under the revised proposed Plan amendments includes water supply adjustments intended to reduce water supply impacts and allow more water to be stored in reservoirs at the Plan outset. Please see Common Response 7.24, Alternatives Analysis, for additional information on how the alternatives were analyzed.
249	1	We are writing this letter to emphasize our previous comments about the critical importance of a rigorous scientifically-based monitoring, assessment, and reporting program for the selected implementation pathway. While the Final Draft Scientific Supplement provided in Appendix G2 of the Staff Report includes revisions that were responsive to some of the Delta ISB's recent comments, details regarding the implementation plan are not described in the draft Staff Report. We emphasize three key points below. First, a monitoring, assessment, and reporting plan needs to be carefully designed to provide the scope and scale of scientific evidence necessary for adaptive management. In doing so, the plan should identify feasible and relevant quantitative performance metrics to test whether changes in water flows and habitat area are having the anticipated effects. In addition, detailed data analyses will be needed to interpret results, given the many confounding factors, high variability, and other ongoing changes in the system. Such a plan will further require approaches to manage uncertainty in the decision process and adapt to unexpected changes in climate and other drivers.	Please refer to Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA supplemental science and monitoring.
249	2	Second, we note that the current MOU description lacks some desirable details for assuring a thorough and rigorous approach to address system complexity. We understand that full implementation details for science and monitoring have not yet been described, although some have been included in the MOU portion of the Voluntary Agreements. The lack of detail in the	The VA pathway was described in Chapter 9, Proposed Voluntary Agreements, of the 2023 draft Staff Report. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on the VA pathway.

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		current documents is concerning, however, especially in light of the recent Delta ISB review of the Delta monitoring enterprise [hyperlink: https://deltacouncil.ca.gov/pdf/isb/products/2022-03-22-isb-monitoring-enterprise-review.pdf] that found that data being collected did not always match needs to assess management performance.	
249	3	Third, we have concerns that the metrics being proposed may not fully support evidence-based adaptive management decisions. In particular, the lack of clarity on what metric changes would trigger decisions to alter management approaches makes it difficult to assess the adequacy of the agreement. Additional details on our concerns are in our previous Delta ISB VA/MOU comments [https://deltacouncil.ca.gov/pdf/isb/products/2023-03-08-isb-voluntary%20agreements-review.pdf].	Please refer to Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA supplemental science and monitoring.
249	4	In sum, concrete plans for data management, analysis and synthesis will be critical to successful adaptive management of the Bay Delta Plan regardless of the implementation path selected for the updated plan. In addition, to fully support adaptive management, we strongly recommend that the scientific monitoring, assessment, and reporting approach for implementing the updated Bay-Delta Plan include appropriate scientific and community input and mechanisms for providing sufficient funding for the approach.	Please refer to Common Response 1.3, Revised Proposed Plan Amendments, for information on the VA supplemental science and monitoring and the Bay-Delta Monitoring and Evaluation Program.
250	1	We write to encourage the SWRCB board members and staff to give careful consideration to the detailed written comments submitted by Yuba Water Agency in response to the Draft Staff Report. Yuba Water Agency's primary mission is to sustainably manage water resources to reduce flood risk and ensure reliable water supplies in Yuba County. As a public water supplier wholly reliant on groundwater to provide for our customers' needs, Yuba Water Agency plays a critical role in ensuring the availability and quality of our groundwater supplies through their work to implement approved groundwater sustainability plans under the Sustainable Groundwater Management Act across Yuba County. The City of Wheatland shares Yuba Water Agency's concerns that implementation of the proposed plan amendments detailed in the Draft Staff Report risks undermining Yuba County's decades-	The Staff Report includes a discussion on potential impacts and mitigation measures for groundwater resources, and the consideration of SGMA and conjunctive use projects in Section 7.12.2 Groundwater. Please also see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for information regarding the overlap of the Sacramento/Delta Bay Delta Plan update with the implementation of the Sustainable Groundwater Management Act (SGMA).

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		long efforts to ensure groundwater sustainability through responsible, forward-thinking conjunctive use of our surface water and groundwater resources.	
250	2	In addition, our service area is a disadvantaged community, like the majority of communities in Yuba County. Yuba Water Agency's ability to implement projects and provide funding to support improvements in our community is critical to us. For example, Yuba Water Agency is the only significant source of local funding for flood control projects which have been implemented in the recent past and others that are planned for the future. In addition, Yuba Water Agency has been able to use its revenues to support other water-related projects in our community. If Yuba Water Agency is unable to sustain its current operations, those funds may not be available in the future to help support and enhance the community we serve.	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 economic effects to Yuba Water Agency from reduced revenue from hydropower production and water sales.
251	1	I have watched in horror as Gavin Newsom has broken law after law in an effort to drive the salmon to extinction. In an effort to curry money and support from Agribusinesses. It's revolting. I'm a lifelong Democrat and know these big farmers personally and unfortunately for Gavin they will never like or support him after he is governor. Their goal of not having any salmon left to have to give water to is getting closer. If the Tunnel thru the Delta happens they will be gone. Please Water Board do your job and enforce the required flows for Salmon to SURVIVE!!! And maybe THRIVE!!!	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.
252	1	As mentioned in my verbal comments on November 17th, the voluntary agreement process was innovative and thoughtful in concept but in practice it has translated into delays the ecosystem can hardly afford. You've put in noble efforts to get to a success with the VA process, but so far success has been elusive. I'm most familiar with the SFPUC's behavior and believe they are not motivated to find a win-win solution and instead use the process as a stalling tactic while they and other agencies apply political pressure, including through the governor, to water down (forgive the pun) the measures to something that is inconsequential to their 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.

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		It is terrific that you are doing your best to not let that happen. Too many years of effort have been invested. Thank you! But in the meantime, the delays are devastating to the ecosystems and it seems like we are in a quagmire. You, the State Water Board established the voluntary agreement option. If you don't see success soon, please change the process to either increase the motivation for water agencies to propose real solutions or eliminate the voluntary agreement option entirely. Your work is too valuable not to take action to get the Bay Delta Plan process back on track.	
253	1	While most BAWSCA member agencies receive the majority of their water from SFPUC's Hetch Hetchy system on the Tuolumne River, which is subject to the Bay-Delta Plan's LSJR flow objectives, the Staff Report recognizes that a number of BAWSCA member agencies also receive water from Sacramento/Delta supplies. Specifically, the Alameda County Water District (ACWD), a BAWSCA member agency, is also a contractor for State Water Project (SWP) supplies from the Delta. Similarly, BAWSCA member agencies such as the Cities of Sunnyvale, Santa Clara, Mountain View, and Milpitas receive some water supplies from the RWS but also wholesale water supplies from Santa Clara Valley Water District (Valley Water), which has contracts with both the Central Valley Project (CVP) and SWP. (Staff Report at p. 7.20-38.) [Footnote 3: The Staff Report at page 7.20-38 incorrectly indicates that Alameda County Water District and the Cities of Santa Clara, Mountain View, and Milpitas receive water from BAWSCA and that BAWSCA contracts with the San Francisco Public Utilities Commission for supply. Although BAWSCA represents the interests of its member agencies in dealings with the SFPUC, each agency contracts individually with San Francisco for their water supply derived from the Regional Water System. Sunnyvale is also a BAWSCA member agency.] The Staff Report recognizes that approximately half of the Bay Area region's water supply is derived from the	The suggested edits have been made in the discussion that follows Table 7.20-16. The impact determination was not changed because of these modifications.

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		Sacramento/Delta. (Id. At pp. 7.20-13, 7.20-36) It also recognizes that some municipalities in the Bay Area region may not have adequate existing water supplies to meet demand in 2030 during multiple dry years. These municipalities likely would need to obtain new water supplies to prevent dry year shortages. (Id. At p. 7.20-38, see also Table 7.20-16.) Modeling results in the Staff Report show that under the 55 percent unimpaired flow scenario, Sacramento/Delta deliveries to the Bay Area would be reduced by about 25 percent on average, which represents about 15 percent of overall municipal use in the region (Id. At pp. 7.20-36 –7.20-37; See also Table 7.20-8). Further, "[i]mplementation of the 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." (Id. At p. 7.20-38.)	
253	2	BAWSCA is not only concerned about the Bay-Delta Plan's impact on its member agencies' water supplies derived from the Sacramento/Delta, it is also concerned about compounded impacts to the greater Bay Area and its service area from the combined requirements of the LSJR flow objectives and the proposed Sacramento/Delta portion of the Bay-Delta Plan. To lessen these impacts while still meeting the reasonable protection of fish and wildlife, BAWSCA fully supports the State Board's thorough evaluation of proposed Voluntary Agreements as an alternative in the Staff Report for the Sacramento/Delta update, and also as a potential Bay-Delta Plan update for the Tuolumne River. [Footnote 4: In 2022, the State Board issued a Notice of Preparation (NOP) for a proposed regulation to implement the Lower San Joaquin River/Southern Delta updates to the Bay-Delta Plan. Separately, the State Water Board is also considering possible updates that would be needed for a proposed Voluntary Agreement (VA) for the Tuolumne River. In April 2023, a NOP was issued for preparation of a draft Staff Report/Substitute Environmental Document needed to support possible amendments to the Bay-Delta Plan to incorporate the proposed Tuolumne River VA.]	The Staff Report analyzes potential effects associated with combined requirements of the Lower San Joaquin River flow objectives and the proposed unimpaired flow requirements in Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, and evaluates the proposed VAs in Chapter 9, Proposed Voluntary Agreements. Note that model results are presented as worst case scenarios that do not utilize flexibility in the Plan for adaptive implementation and local cooperative solutions. Provisions for adaptive implementation of the numeric inflow requirements are provided to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat and inflow-based Delta outflow requirements. The State Water Board also plans to develop appropriate provisions to address human health and safety needs and other possible reasons for short-term and long-term exceptions to curtailments to allow continued diversions for minimum human health and safety water supplies where alternate supplies are not available. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments. In addition

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			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 provide for a VA pathway for an 8-year term with the possibility of extension that reduces the required flow contributions for VA water rights.
253	3	BAWSCA Supports the State Board's Thorough Evaluation of Voluntary Agreements as an Alternative to the Bay-Delta Plan Update While BAWSCA opposed the 2018 adopted Plan, it has consistently supported the evaluation of voluntary agreements as a potential alternative. Fortunately, the State Board's planning process provides a policy and legal pathway for voluntary agreements to be evaluated as an alternative to a prescribed unimpaired flows only approach. The proposed Voluntary Agreements Alternative is alternative 6 in the Staff Report. The proposed voluntary agreements (Vas), also called the "Agreements to Support Healthy Rivers and Landscapes," were developed by State, federal and local agencies working collaboratively to advance a transformational, watershed-wide approach to increase river flows, restore ecosystems and strengthen water supply reliability across the state. The approach proposes a comprehensive, multi-year solution that brings together dozens of water agencies with the State and federal governments to pool resources and take concrete actions to provide targeted river flows and expand habitat in the Sacramento and San Joaquin Rivers and Bay Delta. These environmental improvements are guided by scientific monitoring and collaborative decision making. This new approach will also allow water managers to adapt operations based on real-time conditions and enable broad coordination across watersheds to manage flows for maximum benefits. This more flexible, adaptive management is critical as climate change increases uncertainty and drives extreme	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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		conditions. Specifically, the Vas propose (1) a new narrative objective to achieve the viability of native fish populations; and (2) to provide the participating parties' share, during implementation of the Vas, to contribute to achieving the existing Narrative Salmon Protection Objective by 2050. The proposed Vas also identify the development of governance and science programs to direct flows and habitat restoration, conduct assessments, and develop strategic plans and annual reports.	
253	4	BAWSCA strongly believes that a voluntary agreement regarding the required flows that assigns responsibility for those flows is a better option for meeting the objectives of the Bay-Delta Plan than prescribed unimpaired flow requirements. As described in BAWSCA's comments on the SED for the LSJR flows, regulation through an unimpaired flow-only approach will have severe impacts that are excessive, unacceptable and will lead to significant economic and environmental impacts in the Bay Area. [Footnote 5: BAWSCA SED Comments, available at https://www.waterboards.ca.gov/public_notices/comments/2016_baydelta_plan_amendment/nicole_sandkulla.pdf.] A voluntary agreement reached with the water right holders is a far better option than regulating these water rights, which will inevitably lead to prolonged litigation and prevent the timely implementation of both flow and non-flow measure improvements for the fisheries sought by all who depend on water supplies from the Bay-Delta. BAWSCA supports the objectives of the Bay-Delta Plan and is committed to working with other stakeholders to protect water quality in the Bay-Delta for humans, fish, and other wildlife. BAWSCA urges the State Board to thoroughly evaluate the Vas as an alternative to the Bay-Delta Plan updates, both for the Sacramento/Delta and for the Tuolumne River.	Economic and environmental impacts are evaluated in Chapter 7, Environmental Analysis; Chapter 8, Economic Analysis and Other Considerations; Chapter 9, Proposed Voluntary Agreements; and Chapter 13, Revised Proposed Plan Amendments, of the Staff Report.
253	5	The Staff Report Does Not Adequately Evaluate the Need for Developing Housing in the Bay Area as Required Under the Porter-Cologne Act The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) requires that factors to be considered in establishing water quality objectives specifically include "[t]he need for developing housing within the region." (Wat. Code, § 13241(e).) Further, the	Please refer to the response to comment 253-2. See also Common Response 1.2, Water Quality Control Planning Process, for discussion of the State Water Board's consideration of factors listed under Water Code section 13241. The Staff Report discloses that some service providers could experience reductions in water supply, potentially requiring the construction or expansion of new water treatment facilities or water supply infrastructure, the environmental impacts of which

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		principles, guidelines, and objectives of State policy for water quality control “shall be consistent with the state goal of providing a decent home and suitable living environment for every Californian.” (Wat. Code, §13142, emphasis added.) “The availability of housing is of vital statewide importance” (Gov. Code, § 65580(a)) and “California has a housing supply and affordability crisis of historic proportions” (id. § 65589.5(a)(2)(A)). And the Bay Area currently has a severe housing shortage. (Plan Bay Area 2050 at p. 33.) [Footnote 6: Plan Bay Area 2050, available at https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.] The Staff Report fails to adequately consider the housing crisis in the Bay Area and the analysis does not meet the Porter-Cologne Act requirement to consider the need for developing housing in the region. As discussed above, the modeling results in the Staff Report show that under the 55 percent unimpaired flow scenario the proposed Plan amendments could result in a 15 percent reduction in the average municipal water supply to the Bay Area region. (Staff Report at p. 7.20-36; see also Table 7.20-8). It is unclear if these modeling results take into account the severe water shortages to the BAWSCA service area already expected from the 2018 adopted LSJR flow objectives, including 50 percent reductions in multi-year droughts. [Footnote 7: BAWSCA SED Comments at pp. 6-9, available at https://www.waterboards.ca.gov/public_notices/comments/2016_baydelta_plan_amendment/nicole_sandkulla.pdf.] Table 7.20-16 in the Staff Report shows Bay Area 2030 projected population, annual demand and supply, and expected surplus or shortage after 5 consecutive dry years. Notably, a number of BAWSCA member agencies, including the Cities of San Jose, Milpitas and Mountain View, expect water supply shortages by 2030. Approximately 18 percent of Californians reside in the Bay Area, which is the second most populous region in California. (Staff Report at p. 7.20-13.) The Staff Report recognizes that Bay Area grew at a rate of 7.5 percent between 2010 and 2016. This is higher-than-statewide growth rate and is expected to continue in the future. (Id., at p. 7.16-3.) A major concern of BAWSCA and its	are disclosed in Section 7.22, New or Modified Facilities. In Section 7.20, Utilities and Service Systems, the State Water Board determined that impacts on municipal water suppliers could be significant even if proposed mitigation was applied. Mitigation Measure MM-UT-d discusses ways that municipal suppliers can avoid or reduce effect on municipal supplies by diversifying water portfolios, employing conjunctive groundwater use, water recycling, water conservation and increasing water use efficiency. However, the State Water Board recognizes the unique water supply portfolios, resources and circumstances of each service provider. It would be speculative to make assumptions regarding how service providers will respond to implementation of the flow objectives because it will depend on many individual and collective decisions; including, but not limited to, the discrete actions of other local water users in response to reductions in surface water and alternative sources of water supply.

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		member agencies is how the reduced water supplies from implementation of the Bay-Delta Plan will impact the existing housing crisis in the Bay Area as well as prohibit the prescribed and State dictated development of new housing in the region. (See Plan Bay-Area 2050 at p. 98 [indicating that drought and water supply are major environmental concerns for the Bay Area looking out to the mid-21st century.]]) The Staff Report is deficient for two major reasons. First, it attempts to substitute a California Environmental Quality Act (CEQA) impacts analysis related to population and housing impacts for the Porter-Cologne Act requirement to consider the need for developing housing within the region. (Wat. Code, § 13241(e).) These are separate and distinct legal requirements of the Plan update. Second, and relatedly, it does not consider the prescribed and State-mandated need to develop new housing units in the Bay Area and how that will be impacted by reduced water supplies from the Bay-Delta Plan's update.	
253	6	The Staff Report's CEQA Impact Analysis Related to Housing and Population Cannot be a Substitute for the Porter-Cologne Act's Requirement to Consider the Need for Developing Housing Within the Region. Rather than analyzing the need to develop housing in the region, the Staff Report summarily concludes that the project "would not directly restrict development of housing." (Staff Report, Ex. Summary at p. 1-7.) It then cites to a number of sections of the Staff Report related to CEQA analysis of population, housing and growth-inducing impacts. This CEQA analysis is different than, and cannot be a substitute for the Porter-Cologne Act's requirements to consider the need for developing housing within the region. (Wat. Code, § 13241(e).) If all section 13241(e) requires of the State Board is to claim that the water quality objectives "would not directly restrict development of housing," then it is unclear under that very narrow interpretation whether the "need for developing housing" would ever factor into any water quality control planning process. Even so, that narrow interpretation conflicts with the statute's broader language that the State Board must	Please see Common Response 1.2, Water Quality Control Planning Process, for discussion of the State Water Board's consideration of factors listed under Water Code section 13241. See also the response to comment 253-5. The need for new housing in the region is but one of the factors to be considered in setting new flow objectives. The State Water Board must also consider past, present, and probable future beneficial uses of water, including fish and wildlife uses (Wat. Code, § 13241(a)). The availability of reliable water supplies for municipal and industrial purposes is important to maintaining the economic viability of the Bay Area, and reliable supplies are needed to foster future growth and economic activity. As discussed in Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, water supply is an important public service that supports urban development and affects the growth potential of a community. However, economic conditions (such as job growth, income growth, demographics, mortgage interest rates, and available housing stock and developable land) are generally the primary factor. Due to the unique circumstances of each service provider the State Water Board cannot predict how each service

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		consider “[t]he need for developing housing within the region.” (Wat. Code, § 13241(e).) That broad language should embrace not just direct restrictions on development, but it should include considerations of what reasonably foreseeable impacts—whether direct or indirect—water quality control planning may have on housing supply and demand. CEQA's environmental impact analysis requires a discussion of “the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” (Cal. Code Regs., tit. 14, § 15126.2, subd. (e).) Essentially it requires an analysis of potential growth inducing impacts from a project. Specifically, the Staff Report's CEQA analysis concentrates on the environmental setting and potential impacts on population and housing that may result from changes in hydrology or changes in water supply. Activities that would have an impact on population and housing would be development or infrastructure projects that could induce substantial population growth in an area or activities that could result in displacement of substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. (Staff Report at p. 7.16-1.) It concludes that the project would not induce substantial population growth either directly or indirectly. (Ex. Summary at p. 1-7.) As the Staff Report explains, Changes in hydrology include changes in flows and reservoir levels and would not involve the construction of housing or businesses, or other projects that may induce substantial population growth in an area. (Staff Report at p. 7.16-6.) Further, the Staff Report claims that “[r]educed municipal supply would not result in the substantial inducement, directly or indirectly, of population growth.” (Id.) Although the Staff Report may consider impacts from a CEQA standpoint, it entirely fails to consider how existing anticipated growth will occur as a result of the Bay-Delta Plan flows requirement and the resulting decreased water supply to the Bay	provider will meet additional demand from new service connections in an environment of reduced surface water supplies. Therefore, it is uncertain and speculative to make assumptions regarding how BAWSCA member agencies will meet future growth-related demands because it will depend on many individual and collective decisions, including, but not limited to, the discrete actions of local water users in response to reductions in surface water and alternative sources of water supply. Accordingly, the State Water Board did not quantify or model specific impacts to the construction of additional housing pursuant to local Regional Housing Needs Allocations and other planning efforts. The Staff Report provides adequate consideration and evaluation of housing as a component of municipal use. The Bay-Delta watershed is a complex system that serves as a critical resource for the State. It provides drinking water to millions of Californians, provides much of the water supply for farmland throughout the state, and is vital to California Native American Tribes whose cultures are deeply entwined with the watershed and the ecosystem. The revised proposed Plan amendments were developed to improve flow and water quality conditions over a large geographic area, and particularly for fish and wildlife beneficial uses in the Sacramento River watershed, Delta eastside tributaries, and Delta regions (Sacramento/Delta). The State Water Board recognizes that providing instream flows for the environment necessarily results in less water available for other uses. Providing balanced protection of all beneficial uses of water is incredibly important and requires careful consideration, and the State Water Board has been particularly sensitive to supply impacts on municipal use.

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		Area. Before the State Board can commit to Sacramento/Delta flow requirements, section 13241 requires that the State Board make a concerted effort to accurately understand how local agencies will respond to the water quality objectives and what reasonably foreseeable housing and economic impacts will results from those actions. Whether the project will directly or indirectly induce population growth is an entirely different analysis than the Porter-Cologne Act's requirements to consider the need for developing housing within the region. (Wat. Code, § 13241(e).) There can be no disagreement that the Plan's flow requirements will reduce water supplies to the Bay Area. The question thus, is not whether these reduced flows will induce growth - it's hard to imagine a situation where less water supply will induce growth. Rather, the question that must be addressed under the Porter-Cologne Act is whether the reduced water supplies from the Bay-Delta Plan's flow requirements will impact the anticipated and mandated increased housing in the Bay Area? A reasonable and good faith effort under section 13241 must be outlined in the Staff Report.	
253	7	The Staff Report Should Consider the Prescribed and State-Mandated Need to Develop New Housing Units in the Bay Area In 1969, the State mandated that all California cities, towns and counties must plan for the housing needs of our residents—regardless of income. This State mandate is called the Housing Element and Regional Housing Needs Allocation (RHNA). As part of RHNA, the California Department of Housing and Community Development (HCD), determines the total number of new homes the Bay Area needs to build—and how affordable those homes need to be—in order to meet the housing needs of people at all income levels. The Association of Bay Area Governments (ABAG), working with the Housing Methodology Committee (HMC), then distributes a share of the region's housing needs to each city, town and county in the region. Each local government must then update the Housing Element of its general plan to show the locations where housing can be built and the policies and strategies necessary to meet the community's housing needs.	Please refer to the response to comment 253-6.

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		On October 21, 2021, the Metropolitan Transportation Commission and ABAG jointly adopted Plan Bay Area 2050 and its related supplemental reports. [Footnote 8: Plan Bay Area 2050, available at https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.] Plan Bay Area 2050 connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. By 2050, the best estimates suggest the Bay Area's population will grow to just over 10 million residents, and that the number of jobs within the nine counties will climb to more than 5 million. (Plan Bay Area 2050 at p. 3.) The Bay Area has 2.5 million homes and counting throughout its nine counties. Significantly more housing will need to be built throughout the region in order to accommodate a growing population expected to reach 10 million by 2050. (Id., at p. 24.) For the period from 2023 to 2031, HCD has identified a need of more than 441,000 housing units in the Bay Area — more than double the amount from the last eight-year cycle (187,000 units between 2015 and 2023). (Id., at p. 34.) ABAG has determined that this is a challenging prospect given the higher number of new homes needed. (Id.) On December 16, 2021, ABAG adopted the Final RHNA Plan: San Francisco Bay Area, 2023-2031. [Footnote 9: FINAL REGIONAL HOUSING NEEDS ALLOCATION (RHNA) PLAN: San Francisco Bay Area, 2023-2031, available at https://abag.ca.gov/sites/default/files/documents/2022-12/Final%20RHNA%20Methodology%20Report%202023-2031_update_11-22.pdf] That was the final step in ABAG's RHNA process that began in October 2019. HCD required the Bay Area to plan for and revise local zoning to accommodate 441,176 additional housing units during the 2023-31 period. [Footnote 10: RHNA - Regional Housing Needs Allocation, available at https://abag.ca.gov/our-work/housing/rhna-regionalhousing-needs-allocation.] Each local government in the Bay Area, including those that lie within the BAWSCA service area, were required to update the Housing Element of its general plan and its zoning to demonstrate how it can accommodate its mandated RHNA numbers pursuant to State law. Housing Element updates	

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		were due to HCD by January 31, 2023. To comply with Water Code section 13241's requirement to consider the need for developing housing within the region, the State Board must consider the fact that the Bay Area is required, by RHNA, to provide for a significant increase in regional housing between now and 2031. The approved final RHNA plan distributes this requirement among the region's nine counties and 101 cities and towns. From the information provided by ABAG, the RHNA requirements for the communities that BAWSCA member agencies must serve are 130,584 total new housing units (22,213 for Alameda County agencies, 44,854 for San Mateo County agencies, and 63,517 for Santa Clara County agencies). [Footnote 11: https://abag.ca.gov/sites/default/files/documents/2022-04/Final_RHNA_Methodology_Report_2023-2031_March2022_Update.pdf] That increased housing requirement in turn means increased water demand which must be considered in light of reduced water supplies from the proposed Bay-Delta Plan update. The Bay Area housing supply crisis is a major concern that has real impacts for BAWSCA member agencies, especially considering the drastic water supply shortages expected from the Bay-Delta Plan updates. As a condition of tentative map approval, for instance, residential housing subdivisions require verification of a "sufficient water supply." (Gov. Code, §66473.7(b)(1).) By further example, large residential housing projects require water supply assessments that consider whether the applicable Urban Water Management Plans (UWMP) consider the added demand the project will impose and confirm whether water supplies can meet the housing project's current and future demand. (Wat. Code, § 10910.) These verification and assessment requirements each require that local agencies consider whether a public water system's total projected water supply available during normal, single dry, and multiple dry water years during a twenty-year project will meet the proposed housing project's water demand. (Gov. Code, § 66473.7(a)(2); Wat. Code, § 10910(c)(3).) Consequently, disrupting water supply availability has a direct impact on the Bay Area cities' ability to develop housing.	

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		The State Board must consider State-mandated housing needs in the Bay Area under Water Code section 13241 and determined whether the water supply deficiencies from the Bay-Delta Plan flow objectives would impact the Bay Area's ability to meet those housing needs.	
253	8	Conclusion BAWSCA supports the objectives of the Bay-Delta Plan and is committed to working with other stakeholders to protect water quality in the Bay-Delta for humans, fish, and other wildlife. Part of this process however must include a balancing of all beneficial uses and a consideration of water supply impacts to the Bay Area and resulting economic and housing impacts.	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the consideration of other beneficial uses.
254	1	To Whom It May Concern: THE SED FAILS TO ANALYZE THE CAUSES OF THREATS TO BENEFICIAL USES In D-1485 the State Water Resources Control Board ("Board") noted that among its obligations were the protection of vested water rights and the protection of the public trust (D-1485 pg. 9). The public trust of course includes fish and wildlife beneficial uses. In D-1485 the Board was deciding among other things, on what limitations should be placed on the state and federal projects in order to protect such vested rights and the various public trust uses. The Board stated, "water quality in the Delta should be at least as good as those levels which would have been available had the state and federal projects not been constructed." (Page 10). Thus the inquiry attempted to determine the extent to which project operations adversely affected Delta water quality so that the Decision might order changes in project operations to provide that "pre-project" water quality. The inquiry resulted in the Board finding that to "provide full mitigation of project impacts on all fishery species now would require the virtual shutting down of the project export pumps" (page 13).	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 additional discussion of the State Water Board's authorities under the Porter-Cologne Water Quality Control Act and the Clean Water Act, and how water quality control planning actions relate to water rights and public trust responsibilities. See also Common Response 7.1, General CEQA and Approach to the Analysis, for discussion of the CEQA baseline, project description, and analysis in the Staff Report. The Board has long signaled that other entities outside of the Projects may be required to help meet water quality objectives. For example, pertaining to flow-dependent objectives, the Board in D-1641 recognized that others may be responsible at a future date for meeting water quality objectives: "As discussed above, the flow-dependent objectives are to be met through amendments to existing water rights. The DWR and the USBR are meeting the remaining objectives as part of their current obligation under the federal and state Endangered Species Acts. It is in the public interest that these objectives continue to be implemented while the SWRCB conducts further proceedings to reach a final determination as to the responsibilities of parties to help meet these objectives." Similarly, the court in El Dorado

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			Irrigation District v. State Water Resources Control Bd. (2006) 142 Cal.App.4th 937 noted in part that: “The Board has a legitimate interest in requiring El Dorado to contribute toward the maintenance of Delta water quality objectives to the extent El Dorado’s diversion of natural flow contributes to the degradation of water quality in the Delta. *The Board is under no obligation to require the projects to bear all the burden of meeting water quality objectives in the Delta indefinitely.*” (emphasis added with *).
254	2	Over the years the Board has abandoned its obligations referenced in D-1485 and now attempts to instead determine what actions and flows (provided by the projects and third parties) might help protect the fisheries. Gone is the effort to determine how the projects might be operated (or not operated) to provide the needed water quality in the Delta to protect vested rights and public trust uses. Now, the Board attempts to balance the actions of all water users in order to protect fisheries and to protect some level of exports. This approach of course is legally wrong. The junior most right holders (the projects) can only operate to the degree that they do not harm other right holders and to the degree they do not harm fisheries. Thus the initial investigation of the Board in developing new water quality objectives is to determine what and the degree to which project operations adversely affect other water right holders and fisheries/public trust uses. The entire process should begin with reliable modeling which specifies the effects of the projects on the Delta and the beneficial uses therein. From there, the Board must take note of other legal obligations placed on the projects and then determine what conditions should exist to protect legal users and public trust needs. The most important of these other legal obligations is the Delta Act, Water Code Sections 12200 et.seq. [ATT 2]. That Act prohibits the export of any water (a) to which in-Delta users are entitled, (b) needed to provide water quality, and (c) needed for an adequate supply for users of water in the Delta. This Act was interpreted in the Racanelli case which specifically confirmed this limitation on exports. The Board and the export projects were parties to that case and are bound by its decision.	Please see Common Response 1.2, Water Quality Control Planning Process, for additional discussion of the State Water Board’s authorities under the Porter-Cologne Water Quality Control Act and the Clean Water Act and the relationship between water quality control planning, water-right administration, and protection of beneficial uses, and contextual history of D-1641. Please also see Common Response 7.1, General CEQA and Approach to the Analysis, for discussion of the CEQA baseline, project description, and analysis used in the Staff Report. Please see also the responses to comments 254-4, 254-6, and 254-9. D-1485 was adopted through both the State Water Board’s water quality and water-right authorities and imposed terms and conditions on SWP and CVP permits to implement then-applicable Delta and Suisun Marsh standards. D-1485’s discussion of “without project” water quality was expressly limited by the constitutional requirement of reasonable use and did not adjudicate individual vested water rights. Later Bay-Delta decisions, including D-1641 and Order WR 2001-05, updated the water-right implementation mechanisms for later Bay-Delta Plan objectives, including project-specific obligations, agreements with other water users, and continued DWR and Reclamation responsibility for certain flow-dependent objectives unless and until responsibility is assigned otherwise. The current Sacramento/Delta update is a water quality control planning action to establish updated objectives and a program of implementation based on current information; adoption of the proposed Plan amendments would not determine, quantify, or

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		It appears then that the Board process is backwards. It has not determined the specific project impacts on the beneficial uses required to be protected. It has not analyzed what the water quality/protections would be in the absence of the projects. It has not determined what additional water quality aspects need to be augmented to protect fish or other beneficial uses. Instead it has attempted to adjust the entire Bay-Delta and its watershed into a broad set of actions/standards while allowing exports; exports that cause/caused the harm to the fisheries and in-Delta users and that are prohibited under the controlling case law.	adjudicate individual water rights or alter water right priorities. Any enforceable obligations needed to implement adopted objectives would be addressed through future State Water Board actions exercising water-right or water-quality authority, consistent with applicable law and procedures. D-1641 did not rescind D-1485 in full or eliminate SWP and CVP obligations. Rather, D-1641 rescinded or amended specific D-1485 permit terms that implemented the 1978 Delta Plan and replaced them with updated permit terms implementing the 1995 Bay-Delta Plan.
254	3	The SED provides no real data on projects impacts to fisheries. Those impacts must be first mitigated and then the Board could determine if other actions/flows are required to protect the beneficial uses. In light of other state and federal mandates on the projects, they are likely obligated to provided such additional protections anyway, and if not, then other parties might be burdened according to water right priorities.	To the extent that this comment summarizes other comments, please see the substantive responses to those comments. The hydrology and hydrodynamics of the Delta, including mixing of Sacramento, San Joaquin, eastside tributary, and tidal inflows and exports through Central Valley Project and State Water Project facilities are described in Section 2.4, Sacramento-San Joaquin Delta, of the 2023 draft Staff Report and in the Delta Simulation Model II (DSM2) documentation in Appendix A2, Delta Simulation Model II (DSM2) Methods and Results, which are used to evaluate flows, salinity, and changes in water quality under the alternatives.
254	4	The SED concludes that other parties, including those on non-state and federal tributaries to the Delta and those in the Delta must have a decreased supply and must contribute water to protect the state and federal projects operations including exports. The SED concludes that in- Delta users must have a decreased supply in direct contradiction to Water Code Sections 12200 et.seq. and Racanelli. The SED concludes that in-Delta users must sometimes have worse water quality while project operations continue to adversely effect in-Delta agricultural beneficial uses. All of these are contrary to law and indicate the Board has abandoned its legal mandates in order to minimize impacts to the projects; the main causes of harm to the various beneficial uses. As covered above, the Board is mandated to first require the projects to fully mitigate their impacts to other water right holders and the public trust assets. The SED does not follow the law. The Board needs to answer the question “why are you	Please see Common Response 1.2, Water Quality Control Planning Process, for additional discussion of the State Water Board’s authorities under the Porter-Cologne Water Quality Control Act and the Clean Water Act, and the relationship between water quality control planning, water-right administration, and public trust responsibilities, and contextual history of D-1641. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for discussion of the CEQA baseline, project description, and methods-of-compliance analysis in the 2023 draft Staff Report. Please see also responses to comments 254-2, 254-6 and 254-9. Historical D-1485 permit terms do not require the current water quality control planning process to assign all responsibility for updated objectives solely to the SWP and CVP at the plan-adoption stage. In D-1641, the State Water Board replaced a

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		not requiring the junior most permit holders to mitigate their impacts on beneficial uses?"	handful of targeted D-1485 permit terms with updated terms implementing the then-newer 1995 Bay-Delta Plan. Substantial DWR and Reclamation responsibilities continued, and D-1641 contemplated further allocation of responsibility where appropriate. Any enforceable obligations needed to implement the objectives of the Bay-Delta Plan as currently proposed, would be addressed through future State Water Board actions consistent with applicable law and procedures, including the water right priority system.
254	5	THE SED INCORRECTLY ANALYZES SCENARIOS UNDER WHICH IN-DELTA USERS WILL HAVE A DECREASED SUPPLY. The SED continues the Board staff's previous analysis in the Curtailment Methodology which misunderstands both the physics of the Delta and the controlling law. In that Methodology process, staff declined to respond to the factual and legal arguments which contradicted their analysis and conclusions. The Response to comments to the SED must address those arguments and provide any contrary facts and law that might exist. The Delta channels always have water in them since the channel bottoms are below sea level and are connected to the ocean. That connection is what defines the Delta; those areas of the Sacramento and San Joaquin Rivers that are subject to tidal action. It is true that given that connection, the Delta channels can under certain circumstances have degraded water quality due to the slow intrusion of ocean salts during low outflow periods [ATT 5]. However, such periodic degradation under "natural conditions" does not adversely affect Delta riparian and pre-1914 water rights. This "always has a supply" principle is set forth in the DWR's contract with North Delta Water Agency wherein it states "(e) Water problems within the Delta are unique within the State of California. As a result of the geographical location of the lands of the Delta and tidal influences, there is no physical shortage of water." (See attached [ATT 4]).	The Staff Report analyzes the available freshwater supplies in the Bay-Delta watershed. Similarly, the water unavailability methodology "only accounts for freshwater natural flows from the Sacramento and San Joaquin Rivers as part of available supplies and does not include any water supplies from tidal inflows to the Legal Delta." "The Sacramento/Delta water delivered to the Delta region does not significantly change in the SacWAM scenarios (Figure 6.4-7 and Table 6.4-11). As explained in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, reduced Delta diversions may occur as a result of the proposed Plan amendments, but significant reductions are not modeled explicitly in the SacWAM scenarios due to the uncertainty in observed Delta depletions and how depletions may change if diversions were curtailed. SacWAM results show as the flow requirements increase from 35 to 75 percent unimpaired flow, the availability of water for diversion is reduced throughout the watershed. Therefore, it is likely that the frequency of insufficient natural and abandoned flows to meet Delta and other riparian diversions would increase. To the degree that such shortages occur, they would be represented in this analysis as a share of total agricultural water supply (Table 6.4-1) and overall cumulative changes in water supply. If Delta water supply is reduced to help meet outflow requirements, there would be an increase in SWP and CVP reservoir storage or an increase in water supply to other regions." (6-65)
254	6	Returning to the issue of quality, a riparian or pre-1914 right does not depend on the water quality in the channel from which the right arises. SDWA is aware of no statute or case law which	Please see Common Response 1.2, Water Quality Control Planning Process, for additional discussion of the State Water Board's authorities under the Porter-Cologne Water Quality

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		suggests such a decrease in the right under any circumstances except lack of actual water. For example, someone downstream on a creek fed by a high sulfur hot spring is riparian to that stream notwithstanding any constituents in the water. He/she can use the water for any beneficial use regardless of the quality of the water. By the same token, someone whose supply may be “naturally” degraded due to ocean salinity intrusion can decide if and how long to divert that supply but there is no actual decrease in that supply or the right to divert it. The extreme example would be that a Delta riparian could divert very salty water if he/she could put that supply to beneficial use. The Board staff’s unsupported assertion is that as the salinity of the water increases, at some point agricultural users are not entitled to use the water. Under that false reasoning, they have concluded that southern Delta water rights decrease, and at some point disappear. Not only is this conclusion unsupported, it is contradicted by history (i.e. pre-project conditions). The southern Delta channels contained useable quality for the entire growing season in 1931, the driest year of the 1929-34 drought.	Control Act and the Clean Water Act and the relationship between water quality control planning, water-right administration, and protection of beneficial uses. Please also see Common Response 7.1, General CEQA and Approach to the Analysis, for discussion of the CEQA baseline, project description, and analysis used in the Staff Report.
254	7	The water supply of the southern Delta is not based just on San Joaquin River flows. Board staff still maintain that Sacramento River, Mokelumne River, Calaveras River, Consumnes River and tidal flows from the west are not available for southern Delta water right holders. This view is contrary to physics. As explained in prior comments, the Delta is a mixture of the various inflows. The percentage of any source water at any particular place is a function the relative inflows and the hydrodynamics of the tidal action. Hence if the San Joaquin River flow is low, a greater percentage of the Delta water is made up of Sacramento River water. As the tide pushes water in and draws water out twice a day, the various sources of Delta water mix together. The Sacramento flows don’t stay in certain channels on ebb and flood tides, they move around and take slightly different pathways on each tide. In addition, in-Delta consumptive uses lower water levels and the tidal actions act to re-establish levels pursuant to gravity. Thus, in low flow times more Sacramento River water can end up in the southern Delta than in times when San Joaquin flows are high. The “natural flow” available to southern Delta riparian’s and pre-1914 right holders is a	Please see Common Response 1.2, Water Quality Control Planning Process, for additional discussion of the State Water Board’s authorities under the Porter-Cologne Water Quality Control Act and the Clean Water Act and the relationship between water quality control planning, water-right administration, and protection of beneficial uses. The hydrology and hydrodynamics of the Delta, including mixing of Sacramento, San Joaquin, eastside tributary, and tidal inflows, are described in Section 2.4, Sacramento-San Joaquin Delta, of the draft Staff Report and in the Delta Simulation Model II (DSM2) documentation in Appendix A2, Delta Simulation Model II (DSM2) Methods and Results, which are used to evaluate flows, salinity, and changes in water quality under the alternatives. As explained in those materials, the draft Staff Report’s hydrologic and hydrodynamic analyses represent the Delta as a tidally influenced, mixed system and evaluate how the proposed Plan amendments and alternatives could affect flows, salinity, and water supply conditions. The Staff Report’s analyses do not adjudicate, diminish, or redefine the scope of riparian or pre-

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		constantly changing mixture of all the sources of water that enter the Delta. Similarly, the water entering from the west on the tide is also an available source for in-Delta riparian's and pre-1914 right holders. Contrary to staff's analysis, the water entering the Delta from the west is not simply ocean water, it is a mixture of the previous months' Delta outflow and the Bay water. Thus, when net outflow ceases (the hypothetical "natural" condition in low flow times) the water that is slowly moving back upstream into the Delta contains a high percentage of water that was previously Delta water. As the low flow conditions continue, more of the water from farther west is pushed into the Delta such that the quality deteriorates. Importantly, this flow from the west is a natural condition and riparian and pre-1914 right holders are entitled to divert it as they see fit.	1914 water rights or make determinations about which specific flows are legally "available" to particular right holders; questions about legal entitlements would be addressed, if needed, in separate implementation proceedings. The State Water Board will implement the flow components of the Sacramento/Delta updates to the Bay-Delta Plan through water right or water quality actions, as necessary, including and primarily through water right curtailments based on water right priorities subject to possible modifications (e.g., drought, public health and safety, public trust obligations).
254	8a	Delta riparian and pre-1914 right holders can also divert when previously stored water is in the system. There are two reasons for this. The first relates to the doctrine of confusion of goods. This doctrine deals with the legal issues resulting from disputes that occur after property of different ownership is mixed and not readily separable. As applied to water in California, the rule is that if one adds their water to a watercourse, that person cannot prevent others from diverting from that water course if the others could have diverted absent the added water. See Butte Canal & Ditch Co. vs. Vaughn 11 Cal. 143, 153 (1858) [ATT 3]. Per that case, the one adding water to the system cannot claim that since he/she improved the quality of the waterway, others cannot divert because they are enjoying that improvement in water quality. Since this case has never been overturned, the Board must apply it to the current situation. Just because the projects release stored water for export and for meeting standards, they cannot preclude downstream users from diverting if those downstream users could divert absent the added water. As we have set forth above, the in-Delta riparians and pre-1914 right holders can always divert from the Delta because it always has a supply. The added water from reservoir releases does not provide a supply, it only improves the quality at times. Per Butte	The comment cites to Butte Canal & Ditch Co. v. Vaughn (1858) 11 Cal. 143, to support the idea that in-Delta water users can divert water previously stored by the projects and released for salinity control in the Delta. However, Butte Canal and the doctrine of confusion of goods do not apply in this context, for several reasons. First, the technological limitations mentioned at length in dicta in Butte Canal are no longer a reality. Through gauging, sampling, satellite imaging, computer modeling, and more, it is possible to accurately measure the amount of water in a stream and determine how much water put into a system in one place will still be there downstream at various locations. Second, the doctrine of confusion of goods deals with an entity that willfully mixes their goods with another. That person loses their goods, unless the goods are of the same quality and the quantity mixed can be ascertained. (Butte Canal (1858) 11 Cal. at 147.) Fresh water in this case is fungible, and as noted above, it is possible to determine the amount mixed by an upstream water right holder (i.e., the Projects) into the system. Therefore, the mixer (the Projects) would not lose their good by mixing in the stream (the Sacramento River and other tributaries), and the doctrine does not apply. Third, Butte Canal does not stand for the proposition it is cited for in the comment. At no point in Butte Canal does the California Supreme Court consider a situation where a diverter, on adding water to a system and improving water quality, objects

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		Canal, in-Delta diverters can always divert even if previously stored water in the system.	to downstream diversions because downstream diverters are enjoying the benefits of improved water quality. To read Butte Canal as considering such a situation is contrary to law and fact. Separately, the claim that reservoir releases “[do] not provide a supply, it only improves the quality at times,” is directly contradictory to the commenter’s claim immediately below in the same comment letter, that the Projects are required by the Delta Protection Act (Water Code section 12000 et seq.) to provide an adequate supply. As discussed in the response to Comment 254-8b, while the Delta Protection Act does require the Projects to provide Delta water users with adequate supply, it does not create a water right for Delta water users (State Water Resources Control Board Cases (2006) 136 Cal.App4th 674, 771-72). Delta water users remain subject to other regulatory requirements (See, e.g., Phelps v. State Water Resources Control Bd. (2007) 157 Cal.App.4th 89 [upholding the ability of the Board to apply Term 91, which precludes the ability of downstream users to divert stored water released by the Projects to comply with water quality objectives and specifically finding that such action was not precluded by the Area of Origin statutes]; El Dorado Irrigation District v. State Water Resources Control Bd. (2006) 142 Cal.App.4th 937 [imposing a condition to protect the diversion of water while federal and state water agencies were releasing water to meet water quality objectives did not contravene the county of origin and area of origin statutes]), and to the extent that Delta water users divert natural flows that contribute to the degradation of water quality in the Delta, the Board has not only a legitimate interest but the legal authority to curtail such diversions. These authorities include Article 10, section 2 of the California Constitution, the Public Trust Doctrine, and Water Code sections 100, 100.5, 104, 105, 275, and 1058. (See also Light v. State Water Resources Control Board (2014) 226 Cal.App.4th 1463] Board had the authority to enact regulations to preclude the unreasonable use of water and evidence sufficient to support the regulation was reasonably necessary to prevent unwarranted salmon mortality]).

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254	8b	The second reason why in-Delta right holders can divert when previously stored water is in the system is that one of the main purposes of the projects is to provide salinity repulsion in the Delta pursuant to Water Code Section 11207 (c). The Board determines what is the proper level of salinity control and assigns that obligation to the projects via their permits. This obligation is further explained in Water Code Sections 12200 et.seq. Section 12202 provides that the projects must provide both salinity control (to keep the Delta “fresh”) and “an adequate water supply for the users of water” in the Delta (note there is no distinction made here that excludes permit or license holders). Thus, if the projects are obligated to maintain Delta salinity, when they provide that salinity control it cannot preclude the use of that water by the beneficial users who are being protected by the salinity standard. If it did so prevent diversions, the standards would be useless and not protect the beneficial use. Further, one must recall that in addition to providing salinity control, the projects are obligated under 12200 et.seq. and Racanelli to provide an adequate supply for in-Delta users. If the projects MUST provide salinity control to protect in-Delta agricultural users and MUST provide a supply for those users, the provision of that water cannot somehow prevent the use of the water. The Board staff’s position is illogic and contrary to the reasonable interpretation of laws and regulations.	Water Code sections 12201 and 12202 place on the Projects an ongoing responsibility to guarantee that Delta water users always have sufficient water of adequate quality, even if that requires the Projects to release stored Project water to support Delta diversions when natural and abandoned flows are inadequate to satisfy their demands. However, nothing in the Delta Protection Act entitles Delta water users to Project water or serves to exempt Delta water users from regulatory requirements, including future actions to implement the update to the Bay-Delta Plan. Water Code section 12204 prohibits the export of water that is needed to provide salinity control and an adequate water supply to Delta users, or the export of water to which Delta users are entitled. The courts have not interpreted these provisions, however, to mean that Delta users are entitled to water previously stored by the Projects in accordance with the priority system that is released for export from the Delta or to meet water quality objectives. Though Delta water users may derive incidental water quality benefits from the Projects’ releases of stored water, they have no right to divert the Projects’ previously stored water itself. Rather, like any water right holder, Delta water users lawful diversions are limited to natural and abandoned flows available at their priority of right. This point was underscored in the State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 771-72 where the court noted that: “As for the argument of the Central Delta parties that the Delta Protection Act gives Delta riparians and appropriators a right to water stored upstream by others, we disagree. Nothing in the Delta Protection Act purports to grant any kind of water right to any particular party. The Delta Protection Act does preclude the diversion of water from the Delta that is necessary for salinity control or to provide an adequate water supply for users within the Delta; however, it is for the Board to decide, in the exercise of its judgment, what level of salinity control should be provided and what is an adequate supply of water for users in the Delta.” Therefore, whatever obligation the Projects have to provide an adequate supply of water for users in the Delta does not serve to

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			relieve those users of the legal requirement to have sufficient water rights to support their diversions. The Delta Protection Act does not create any new water right outside the purview of the Board's regulatory authority, nor does it provide users within the watershed with any right to stored water held within or released from project reservoirs.
254	9	The Board will recall as referenced above, the Board, the projects and the export contractors as well as SDWA were parties to the Racanelli action and so are all bound by that case. SDWA includes as an attachment its comments to that Curtailment Methodology [ATT 10] for this record. The point here is not to reargue the Methodology's failings, but to address the SED's modeling scenarios which result in Delta (and other parties) supply being decreased under some of the alternatives examined in that SED. Given the above, any scenario that "takes" water away from in-Delta users is not only ignoring the physics of the Delta's hydrodynamics but is also contrary to statutes and controlling case law. The WQCP is to protect beneficial uses and users, first by requiring the projects to mitigate their impacts, and then to find (if needed) reasonable additional measures to protect vested water rights and protect public trust uses. Instead of doing that, the Board's SED allocates project impact mitigation to virtually all other vested users and the public trust uses. The WQCP should make sure that not only are fisheries protected and being recovered but that Delta water users are both made whole and insured an adequate supply. "Full mitigation of project impacts on all fishery species now would require the virtual shutting down of the project export pumps." For some unexplained reason, the SED does not seek to require the projects to fully mitigate their impacts.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, and Section 7.24, Alternatives Analysis, of the 2023 draft Staff Report describe the proposed objectives, alternatives, and the evaluation of hydrologic, water-supply, and other effects of the Sacramento/Delta update. The hydrology and hydrodynamics of the Delta, including mixing of Sacramento, San Joaquin, eastside tributary, and tidal inflows, are described in Section 2.4, Sacramento-San Joaquin Delta, of the draft Staff Report and in the Delta Simulation Model II (DSM2) documentation in Appendix A2, Delta Simulation Model II (DSM2) Methods and Results, which are used to evaluate flows, salinity, and changes in water quality under the alternatives. Please see Common Response 1.2, Water Quality Control Planning Process, for additional discussion of the State Water Board's authorities under the Porter-Cologne Water Quality Control Act and the Clean Water Act and the relationship between water quality control planning, water-right administration, and protection of beneficial uses and the public trust. Please also see Common Response 7.1, General CEQA and Approach to the Analysis, for an explanation of the CEQA baseline, the analysis, and how the draft Staff Report evaluates reasonably foreseeable environmental effects of the proposed Plan amendments and alternatives. As explained in those materials and in the 2018 Bay-Delta Plan, the Sacramento/Delta update establishes water quality objectives and a program of implementation to reasonably protect fish and wildlife and other beneficial uses, taking into account statutory factors, including water-right priorities and public trust responsibilities, when setting objectives and considering how they will be implemented. The draft Staff Report's modeling and alternatives analysis provide information on how flows, exports, and Delta conditions could change under

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			different alternatives so the State Water Board can exercise its judgment, consistent with Water Code sections 13241 and 13242 and other applicable law, in balancing the protection of beneficial uses, including fisheries and Delta water users. Additional discussion of Water Code sections 12200 et seq. (the Delta Protection Act) and relevant case law, including <i>United States v. State Water Resources Control Board (Racanelli)</i> and the State Water Resources Control Board Cases, appears in the responses to comments 254-4 and 254-8b. Implementation of the flow components of the proposed Sacramento/Delta updates, if adopted, would occur through one or more future State Water Board actions, including water right or water quality proceedings, as necessary, consistent with applicable law and water right priorities (including consideration of drought, public health and safety, and public trust responsibilities, as applicable). The Board has long signaled that other entities outside of the Projects may be required to help meet water quality objectives. For example, pertaining to flow-dependent objectives, the Board in D-1641 recognized that others may be responsible at a future date for meeting water quality objectives: “As discussed above, the flow-dependent objectives are to be met through amendments to existing water rights. The DWR and the USBR are meeting the remaining objectives as part of their current obligation under the federal and state Endangered Species Acts. It is in the public interest that these objectives continue to be implemented while the SWRCB conducts further proceedings to reach a final determination as to the responsibilities of parties to help meet these objectives.” Similarly, the court in <i>El Dorado Irrigation District v. State Water Resources Control Bd.</i> (2006) 142 Cal.App.4th 937 noted in part that: “The Board has a legitimate interest in requiring El Dorado to contribute toward the maintenance of Delta water quality objectives to the extent El Dorado’s diversion of natural flow contributes to the degradation of water quality in the Delta. *The Board is under no obligation to require the projects to bear all the burden of meeting water quality objectives in the Delta indefinitely.*” (emphasis added with *).

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254	10	THE SED DOES NOT ANALYZE IMPACTS TO DELTA AGRICULTURAL BENEFICIAL USERS. Contrary to the information and opinions previously presented to the Board, the SED only looks at monthly average of salinity impacts resulting from the alternatives examined. As per the prior testimony of Michele Leinfelder-Miles and Terry Prichard (see attached) [ATT 11] the impacts of increased salinity on crops and plants is evaluated by looking at the seasonal average of the salinity of the root zone, or the short-term impacts of “spikes” in the salinity of the applied water entering the root zone. Each crop has a previously determine salt tolerance. If the average soil salinity exceeds that tolerance level, then adverse impacts are assumed. The SED looks at modeled changes in the salinity of the channel water. The models then compare the “with and without” scenarios and then list the monthly averages for the years covered. If the model results show an increase in a multi-year monthly average of the applied water (the water in the channels), that tells one nothing of the seasonal root zone salinity. Hence the results and conclusions of the SED are meaningless as they give no indication of whether the alternatives examined are causing the seasonal soil salinity to be over the salt tolerance threshold of any crop [ATT 12]. In addition, by presenting the monthly average data, there is no way to determine if any spike in salt in any particular month caused by the scenario will cause immediate damage to a crop. The Board saw from the testimony and science presented at the BDCP/WaterFix hearings, the average data will necessarily include instances where the impacts are sometimes higher than the average and sometimes lower than the average. That is what an average is. In those BDCP/WaterFix hearings, we saw that when the model data underlying the averages is broken into shorter time frames, there were extended periods of significant increases in the applied water salinity; sometimes increases in excess of the standards and sometimes for weeks and months in duration [ATT 8]. Unless and until the Board staff breaks down the modeled data into such shorter time frames, we cannot see if the modeled scenarios will cause harmful spikes in the applied	The proposed Sacramento/Delta flow requirements make no changes to the water quality objective for agriculture in the southern Delta, and operations to meet water quality objectives would continue. As discussed in Section 7.12.1, Surface Water, flow requirements are not expected to cause or contribute to any exceedances of the southern Delta water quality objectives, and the DSM2 results indicate that ability to meet the objectives would not be affected by changes in hydrology. To the extent that the Sacramento/Delta flow requirements would increase freshwater outflow above the existing baseline, the impact could be beneficial to southern Delta salinity. Regarding the conditions with reduced exports, less Sacramento River water could be entering the southern part of the interior Delta. However, the DSM2 results indicate that this effect of altering the ratio of Sacramento River water to San Joaquin River water is relatively small and intermittent (e.g., Figure 7.12.1-7 and Figure 7.12.1-8). Please refer to Common Response 1.2, Water Quality Control Planning Process, for further discussion of the consideration of beneficial uses. Please see Common Response 2.1, Presentation of Data and Results in the Staff Report and Responses to Comments, for an explanation of the use of average and other statistical parameters in presenting modeling results in the draft Staff Report. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for additional information on the level and scope of the analysis.

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		water or result in the seasonal soil average adversely affecting any particular crop. The testimonies of Delta farmers presented in the hearings leading up to the wrongful changes in the salinity standards show that agricultural beneficial users are being harmed by foreign salts in the system. The modeling in the SED does not allow anyone to see if the average changes in salinity resulting from the alternatives will or will not cause additional harm. In the BDCP/WaterFix hearings, the petitioners tried to counter the above by stating that the inputs to the DSM2 model were themselves from the CALSIMII model which works off of monthly inputs. Thus they argued, the broader data from the CALSIMII could not be broken down into shorter times frames after the DSM2 results were produced [ATT 9]. Whether that is true is for all practical purposes irrelevant. The Board is required to evaluate how the several alternatives might affect other parties and uses. If the Board cannot model how any alternative will affect spikes in applied water salinity or cannot determine if any changes will result in an increase in the seasonal average of soil salinity, then it cannot make any determinations on how the project or alternatives impact other uses and users and cannot comply with the CEQA requirements.	
254	11	THE DSM2 MODEL DOES NOT PROVIDE USEFUL OR ACCURATE INFORMATION FOR SOUTH DELTA CHANNELS. The SED describes how the DSM2 model is used with inputs from the SacWAM model. It also describes how the DSM2 model was updated and checked for accuracy. However those statements in the SED do not apply to DSM2's treatment of channels in the southern Delta. SDWA previously showed in the BDCP/WaterFix hearings that due to silt collecting in channels, the DSM2 model's cross sections for many southern Delta channels was significantly different from the actual cross sections determined by recent bathymetry data. For example, at Middle River at Undine Bridge, DSM2 "thought" the channel was approximately 50 feet wide and approximately 7.5 feet deep. The most recent bathymetry showed that instead the channel width was about the same, but that the depth was less than a foot (see attached) [ATT 7].	The DSM2 model has been improved continuously through time with newer and more complete data. The model is not perfect, but it is useful for the purposes of the environmental analysis. For example, although the DSM2 model does not capture all the variability in channel cross sections that can occur along the length of a channel, it instead uses representative cross-section dimensions to represent each model segment to capture the major hydrologic processes in the Delta. Inaccuracies in channel shape are more likely to be missed during model calibration if the channel is small because the hydrodynamics of small channels are unlikely to affect overall model performance (e.g., ability to match measured conductivity values). In small channels with minimal net flow and multiple diversions and agricultural drains, precisely accurate modeling can be difficult. For example, in this type of channel, simulated salinity values may be off if there is an unknown source of high salinity,

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		The specifics at any particular instance of course control, but a simple analysis is illustrative. Per the “South Delta Hydrodynamic Modeling” document by Hydrologic System attached hereto [ATT 6], DSM2 shows the depth of Middle River on both sides of the Undine Road Bridge to be about minus 2.5 feet NAVD and the width to be approximately 60 feet. It also shows the Mean Water Level to be at approximately plus 5 feet NAVD. The 2018 bathymetry contained in that document shows that in reality (at the time) the channel bottom was at about PLUS 2 feet NAVD and just under 50 feet wide. The difference between these two cross sections indicates that substantially less water is in and moving through the channel than DSM2 “thinks.” The depth of water is approximately 3-4 feet shallower. Subsequent to this analysis, the high flows of 2023 added significantly more silt to the area resulting in the situation shown in the attached video [ATT 13]. Though no measurements have been taken and channel sounding cannot be done in such shallow water, it now appears the cross section of Middle River near Undine Road Bridge is about 4 feet wide and 4 inches deep. When compared to the DSM2 cross sections cited above, the channel is now carrying a few hundredths of the volume that DSM2 believes is there. This issue is not just critical but appears to be controlling. If the amount of flow DSM2 thinks is going back and forth in Middle River is not doing so, that flow is going somewhere else. All sorts of changes to water levels, quantity and quality can occur if hundreds of cfs of water are going to places other than where DSM2 thinks it’s going. Most importantly, the person who took the video has been unable to divert at all sometimes due to the low water levels. When he can divert, the pump is now taking in substantial amounts of sand which both clogs irrigation ditches and slowly damages the pump. Many individuals in the south Delta, not just those along Middle River suffer these same impacts from low water levels. DWR has established a web address (SDWAComplaints@water.ca.gov) where many instances of the inability to divert are reported. Local farmers could have further explained the problem if Board staff had bothered to investigate the issue.	or discharge of high salinity water might move upstream rather than downstream due to a change in direction of net flow. These local phenomena do not invalidate the large-scale comparison of project conditions to baseline conditions. The goal of the DSM2 modeling for the Staff Report is to evaluate large-scale effects such as seawater intrusion, intermingling of Sacramento and San Joaquin River water, and the quality of water in large diversions. DSM2 is an effective tool for this type of evaluation. The DSM2 modeling shows little change in the southern Delta due to changes in hydrology. This conclusion is not expected to change even with improvements in model inputs.

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		Rather than investigate this condition that adversely affects agricultural beneficial users, Board staff, like the BDCP/WaterFix petitioners argue that the models are not “predicting the future” they are instead making comparisons between model runs and the comparisons are valid notwithstanding any channel cross sections errors. This is of course false on its face. First, if such errors make no difference, models would not be calibrated. Second, although the model does not of course exactly predict the future, it is used to see what effects a change in inputs will cause. Modeling effects of a small change in inputs on a large body of flowing water tells one nothing about how those changes affect a very small body of flowing water. Lastly with regard to the DSM2 being unreliable, the record shows that sometimes the model “predicts” a change in export operations will cause salinity to increase when in fact salinity is decreasing and vice versa. This occurs when DWR is modeling effects of things such as JPOD or other transfers. Although these mistakes by DSM2 are due to the above describe incorrect channel cross sections, neither DWR nor the Board currently know if that is indeed the full explanation as to why the model is getting things wrong. If the Board does not know why the DSM2 model gets salinity backwards, it certainly cannot conclude the model will accurately measure differences in model runs of any base case and alternatives. If you don’t know why is gets things wrong, you can’t rely on the model comparison.	
254	12	THE SED DOES NOT PROTECT AGRICULTURAL BENEFICIAL USES In developing a WQCP, the Board is required to establish water quality objectives to reasonably protect beneficial uses. As per prior WQCP’s, the Board has determined that the amount of water in a waterway constitutes one of the parameters of water quality. One of the listed beneficial uses in the SED is the agricultural beneficial use in the Delta. The Board previously adopted changes to the southern Delta salinity standards, which are the agricultural beneficial use objectives for the southern Delta. However, the Board did not address all of the issues affecting that beneficial use, instead it deferred limits on export pumping until this SED. Export pumping adversely affects both	The revised proposed Plan amendments were developed to improve flow and water quality conditions over a large geographic area, and particularly for fish and wildlife beneficial uses in the Sacramento River watershed, Delta eastside tributaries, and Delta regions (Sacramento/Delta). Implementation of the revised proposed Plan amendments is expected to improve watershed functions and to provide associated benefits to the aquatic ecosystem and biological resources within the tributaries, the Delta, and the Bay. Providing instream flows for the environment necessarily results in less water available for other uses. Providing balanced protection of all beneficial uses of water is incredibly important and requires careful consideration.

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		the quality and the amount of water available for agricultural beneficial uses in the southern Delta.	Please refer to Common Response 1.2, Water Quality Control Planning Process, for more discussion on the reasonable protection of fish and wildlife and consideration of other beneficial uses.
254	13	Attached hereto is the USBR and SDWA June 1980 Report [ATT 1] on the Effects of the CVP Upon the Southern Delta Water Supply Sacramento-San Joaquin River Delta ("Report"). This Report, which has been provided to the Board and its staff many, many times over the years, describes Staff Report how the CVP decreases flows into the southern Delta, and increases salt loads and concentrations. It also analyzes how CVP and SWP exports decrease water levels in the southern Delta and adversely affect flows and salt concentrations. At pages 155 et seq. the Report describes how incremental increases in export pumping lower water levels at various locations in the area. The evaluation includes numerous tests and early model runs quantifying the decreases in flows and stage. As one example from the many data in the Report, with an export rate of 4,323 cfs at the federal pumps, no exports at the state pumps and a 550 cfs flow at Vernalis, the draw down at Old River and Middle River, was 0.35 feet at HHW and 0.31 feet at LLW (page 169 therein). Of course the Report is now over 40 years old and needs updating. However because USBR and DWR refuse to update the study or perform new modeling to see what the current models would show, the Report remains the only available data on the subject. As the Board staff well knows, SDWA and the Watermaster's Office asked DWR to perform updated modeling to show what conditions in the southern Delta would look like absent export pumping. DWR declined to do so. Interestingly, the SED includes no evidence that the Board has done any new modeling to determine export effects on water levels. In D-1641 the Board required DWR and USBR adopt a Water Level Response Plan (as well as a Water Quality Response Plan) to protect southern Delta diverters from the effects of additional exports (i.e., JPOD or transfers). The Board mistakenly decided that ongoing adverse effects to the agricultural beneficial users	Please refer to the response to comment 254-10 regarding the project's effect on agricultural beneficial uses in the southern Delta, and consideration of beneficial uses.

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		need not be addressed in a WQCP, rather that harm was the “base case” in the analysis and required no mitigation. That position is of course unsupportable as the requirements for a WQCP do not allow for previous harm to a beneficial use to be ignored, the beneficial use must be reasonably protected. Imagine if the fish and wildlife beneficial use objectives were only aimed at current impacts and did not try to fully protect the various species!	
254	14	It should be noted that the two Response Plans noted above have proven ineffective. The Water Level Response Plan was developed using “guestimates” for the minimum water levels that can be tolerated by local diverters and was produced by Alex Hildebrand of SDWA and Parviz Nader-Tehrani of DWR. That Plan included a provision that if those minimum water levels turned out to be incorrect, the parties would renegotiate the correct ones. Soon after the Plan was adopted, local diverters experienced the inability to divert in Middle River even when the DSM2 model and gauges showed levels above that minimum. For at least the past 15 years, SDWA has requested DWR renegotiate the minimum levels and DWR has refused. The Board staff, aware from the start that the minimum levels were disputed, have never asked, or directed DWR and USBR to renegotiate and have never investigated to see if indeed the minimum levels in the Plan were incorrect. As per the numbers above cited in the Report [ATT 1], water levels at Middle River and Old River were decreased by approximately 1/3 of a foot (four inches) when federal exports were 4300 cfs and state exports were zero. The Report allows the Board to estimate the decrease in water levels with additional exports by the state. Importantly, the evaluations in the Report and any modeling done now would include channel cross sections which are radically different than current conditions. As seen above, Middle River at Undine Road (approximately one-and one-half mile from the Middle River - Old River location) recently had a cross section of approximately 4 feet across and 4 inches deep. To protect agricultural beneficial uses in the area one needs to determine how the various levels of exports affect	Protecting the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) watershed and its many beneficial uses is one of the State Water Board's primary responsibilities and top priorities. The State Water Board is responsible for adopting and updating the Bay-Delta Water Quality Control Plan (Bay-Delta Plan), which establishes water quality control measures and flow requirements needed to provide reasonable protection of beneficial uses in the watershed. The revised proposed Plan amendments are focused on improving flow and water quality conditions for fish and wildlife beneficial uses in the Sacramento River watershed, Delta eastside tributaries, and Delta regions (Sacramento/Delta). The revised proposed Plan amendments include provisions for annual and periodic review that would enable the Board to consider Plan implementation effectiveness and make adjustments as needed in the future, including other Plan provisions for the protection of agricultural use in the Delta. Please refer to the response to comment 254-10 regarding the project's effect on agricultural beneficial uses in the southern Delta, and consideration of beneficial uses.

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		the amount and depth of the water flowing in Middle River. Obviously when the extreme conditions in Middle River (as evidence by the November 20 video [ATT 12]) occur or are going to occur, the Board must know the extent to which exports cause or exacerbate the conditions in order to decide what needs to be done to protect the agricultural beneficial uses. The SED makes no effort to examine how the project exports adversely affect the agricultural beneficial uses in Middle River or any other channel in the Delta. Of course the virtual disappearance of Middle River must also affect fish and wildlife beneficial uses and the SED ignores that issue also. For the above reason the SED completely fails to describe, examine, and protect the agricultural users in the southern Delta and other Delta channels.	
254	15	CONCLUSION The SED is inadequate in that it fails to identify the impacts of the state and federal projects and require mitigation; analyzes scenarios which result in a decreased supply for in-Delta users; fails to correctly analyze salinity impacts to Delta agricultural users; uses modeling that does not accurately represent the conditions in the Delta and does not analyze impacts to water levels.	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.
254	16	[ATT 1: Document titled Effects of the CVP Upon the Southern Delta Water Supply Sacramento-San Joaquin River Delta, California]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	17	[ATT 2: Excerpt from document titled United States vs. State Water Resources Control Board 182 Cal.App3d82(1986)]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	18	[ATT 3: Excerpt from document titled Butte Canal & Ditch Co. v. Vaughn, 11 Cal. 143]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1,

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			General Comments, for the approach to addressing attachments to comments.
254	19	[ATT 4: Excerpt from document titled Contract between the State of California Department of Water Resources and the North Delta Water Agency for the Assurance of a Dependable Water Supply of Suitable Quality]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	20	[ATT 5: Excerpt from document titled The Delta and the State Water Project]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	21	[ATT 6: PowerPoint titled South Delta Hydrodynamic Modeling]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Please refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	22	[ATT 7: Two photos of water banks]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Please refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	23	[ATT 8: Excerpts from PowerPoint (title unknown) of EC/salinity data]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	24	[ATT 9: Email from Department of Water Resources dated July 12, 2016 Re: WQ & WL forecast for July 12-August 1]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	25	[ATT 10: Letter from HSI Hydrologic Systems to Department of Water Resources dated December 15, 2022 Re: Delta Conveyance Project, DEIR Comments]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.

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254	26	[ATT 11: Documents of various testimonies from farmers and scientists]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	27	[ATT 12: Document titled Leaching Fractions Achieved in South Delta Soils under Alfalfa Culture 2014 Year-End Report]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
254	28	[ATT 13: Video from November 20, 2023 of Middle River at Undine Road]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Please refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
255	1	Of critical importance to the Agency are the impacts identified from the State Water Board's proposed 55% Unimpaired Flow (55% UIF) alternative on the availability of its primary water supply from Pacific Gas and Electric's Drum-Spaulding Project. Much of PCWA's service area is located in the Sierra Nevada foothills with limited or no availability to a reliable groundwater source or alternative water supply. The Drum-Spaulding Project is the only water source for much of this area, including several disadvantaged communities, and cannot be replaced. The modeling conducted for the DSR/SED identifies a 51% reduction in this critical water supply on average, and as much as a 79% reduction in the driest of year types. Figure 1 [Exhibit 1] below compares the existing PCWA Drum Spaulding water supplies to the proposed 55% UIF scenario by water year type. The DSR/SED modeling identifies a 25% reduction in PCWA's total water supply availability on average, and as much as a 35% reduction in the driest of year types. Figure 2 [Exhibit 2] below compares the existing PCWA water deliveries to the proposed 55% UIF scenario by water year type. The substantial consumptive water supply losses to PCWA from the State Water Board's 55% UIF proposal is unacceptable and would result in significant adverse impacts to existing Placer County residents and the overall economy of Placer County.	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 the flow scenarios would frequently require more water to flow down the South and Middle Forks of the Yuba River, which may reduce the diversions to the Bear River via the Drum Canal. Reductions in reservoir levels and changes in flows could result in environmental effects, as discussed in the energy, biological resources, aesthetics, and recreation analyses in Chapter 7, Environmental Analysis and corresponding subsections of Section 13.7, Environmental Analysis. Please see Section 7.20, Utilities and Service Systems, for the analysis of potential effects associated with reduced water supplies to service providers and feasibility of alternative supplies. In addition, the project is revised as described in Common Response 1.3, Revised Proposed Plan Amendments, to 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.

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		Climate change would further exacerbate the availability of these supplies.	Chapter 10, Economically Disadvantaged Communities, describes various financial and technical assistance programs available to assist public water systems serving economically disadvantaged communities. See Common Response 8.1, Economic Analysis and Other Considerations, regarding regional economic analysis, estimates of potential economic effects, discussion of feasibility of alternative supplies, and funding opportunities, and Common Response 4.2, Drought and Climate Change, for a discussion on the consideration of climate change within the impact analyses of the Staff Report, climate change in Staff Report modeling, and multi-year drought analysis and drought response measures.
255	2	[Exhibit 1: Graph titled Figure 1 – PCWA Drum Spaulding Water Supply Comparison for the 55% UIF Proposal]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
255	3	[Exhibit 2: Graph titled Figure 2 – PCWA Total Water Supply Delivery Comparison for the 55% UIF Proposal]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
255	4	PCWA is a strong supporter of the Agreements to Support Healthy Rivers and Landscapes, commonly referred to as the Voluntary Agreements (VA Alternative), which proposes an increase in both Delta outflow and stream habitat projects and serves as the best alternative to establish water quality control measures and flow requirements needed to provide reasonable protection of beneficial uses in the watershed, including environmental, municipal, domestic, and agricultural water supplies. The analysis contained in the DSR/SED demonstrates that the VA Alternative provides more benefits with less impacts than the proposed Bay Delta Plan unimpaired flow alternatives. Furthermore, the modeling conducted by the State Water Board for the DSR/SED misrepresents and underestimates the benefits of the VA Alternative. Separate modeling of the VA Alternative, performed by Department of Water Resources shows significantly more Delta outflow as compared to the results set forth in the DSR/SED. For the reasons discussed in these comments, PCWA urges the	The differences in changes in hydrology between DWR's modeling of the VA and the results presented in the draft Staff Report are primarily due to the different modeling baselines assumed. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for further discussion on SacWAM VA scenario assumptions.

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		State Water Board to adopt and advance the VA Alternative as the program of implementation for the updated Bay-Delta Plan.	
256	1	This SED purports to fulfill the California Environmental Quality Act (CEQA) requirements of the Board under its own regulations, 14 Cal. Code Regs., § 15252, subd. (a), and to comply with other applicable laws (SED 1-6) As recognized at the outset of the SED, the Board must not only fully comply with the laws and regulations that define its duties but also fulfill a mission to serve California's people and resources in the present and the future. That mission is "to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use for the benefit of present and future generations." (SED 1-1) In places, the SED reflects awareness that insufficient action has been taken to protect the Delta watershed and ecosystem and to fulfill the Board's duties and broader mission. The SED recognizes, for example, that "average regulatory minimum Delta outflows are only about 5 MAF [million acre-feet], or about a third of current average outflows and less than 20 percent of average unimpaired outflows. Existing regulatory minimum Delta outflows would not be protective of the ecosystem, and without additional instream flow protections, existing flows may be reduced in the future, particularly with climate change and additional water development absent additional minimum instream flow requirements that ensure flows are preserved in stream when needed for the reasonable protection of fish and wildlife." (SED 1-9.) In many other places, the SED in present form exemplifies evasion. Within a report that purports to fulfill CEQA requirements and comply with other applicable laws (SED 1-6) there are glaring omissions and avoidance at nearly every turn. The SED contains no appreciable public trust analysis, no meaningful evaluation of feasibility of alternatives, erasure of an entire river system (the Trinity), abdication of regulatory responsibilities for water quality beyond flows, and no	Staff Report Section 5.2, State Water Board Responsibilities and Authorities, provides a discussion that includes water quality and water rights authorities and responsibilities, including Article X, section 2 of the California Constitution and the Public Trust Doctrine. Additionally, the limited recirculation of the Staff Report, Chapter 13, Revised Proposed Plan Amendments, contains explicit findings under the Public Trust Doctrine and Water Code section 13241 factors. See also Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board authorities related to the water quality control planning process, the Public Trust Doctrine, California Constitution, Article X, section 2, the consideration of beneficial uses, and the consideration of non-flow measures and State Water Board's authority to impose non-flow measures. To the extent that this comment summarizes or introduces other comments, please see the substantive responses to those comments. 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 7.24, Alternatives Analysis, regarding the feasibility of alternatives included in the Staff Report and the consideration of alternatives. Climate change is discussed throughout the Staff Report, including but not limited to, Section 2.6, Climate Change and Drought; Chapter 4, Other Aquatic Ecosystem Stressors; Chapter 5, Proposed Changes to the Bay-Delta Plan for the

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		substantive assessment of climate change impacts on the proposed standards and plan of implementation. Moreover, the SED fails to grapple with additional legal requirements and written commitments, including those for the Human Right to Water, the Delta Reform Act, racial equity, tribal rights, waste and unreasonable use, and fish passage. Absent a major course correction, the SED will remain incapable of complying with CEQA and other laws and will remain antithetical to the Board's adopted commitments.	Sacramento/Delta; Chapter 6, Changes in Hydrology and Water Supply; Section 7.10, Greenhouse Gas Emissions; and Section 9.7.10, Greenhouse Gas Emissions. Please also refer to Common Response 4.2, Drought and Climate Change, regarding climate change. The human right to water is discussed in several places in the Staff Report including Section 7.12.2, Hydrology and Water Quality – Groundwater, Section 7.20, Utilities and Service Systems, Section 8.5.9, Economically Disadvantaged Communities and Drinking Water, and 9.7.12.2, Groundwater. Also see Common Response 7.20, Utilities and Service Systems, regarding Water Code section 106 and water for minimum health and safety needs. See Common Response 10.1, Economically Disadvantaged Communities, regarding racial equity resolution and action plan. See Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, regarding federal reserved water rights. See Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements, including the Delta Reform Act. In the Staff Report, Section 4.5.3, Fish Passage Barriers, describes existing fish passage issues. Section 5.5.2, Fish Passage Improvement Projects, discusses actions that may be taken to improve fish passage. Section 7.21, Habitat Restoration and Other Ecosystem projects, evaluates the environmental impacts of non-flow ecosystem projects, including physical habitat restoration, fish passage projects, predation and aquatic invasive species control.
256	2	To achieve a full integration of the Board's stated goals and existing law, the SED needs to become a fundamentally different document. The economic impacts section must be more balanced and part of an integrated public trust analysis. The chapters on environmental justice and tribal consultation must contain tangible actions incorporated into the implementation chapter. The sections on alternatives and implementation must	Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion on the public trust doctrine and Common Response 8.1, Economic Analysis and Other Considerations, for additional discussion on the economic analyses and associated impacts included in the Staff Report. Further information on the public trust doctrine as it relates to the Staff Report and its included analyses can be found in Section

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		eliminate infeasible scenarios and focus on regulatory actions to achieve meaningful ecosystem improvements. There must be a declaration that the entire watershed is over appropriated, restrictions on water rights as mitigation measures, and an inclusion of impacts in the Trinity River basin due to the ongoing diversions into the Sacramento River. Furthermore, for the Board to honor its stated commitments, the document would need to no longer read as an exercise in evading accountability for current conditions. It would not blame drought emergencies, climate change, and the water rights system for decimated aquatic species populations and regulatory delays. Instead, it would acknowledge the Board's own acquiescence to much of what has brought decline, from approving Temporary Urgency Change Petitions to staff redirection to implementation delays in the name of voluntary agreements. In changing course, the Board must also identify what it can do within the full scope of its authority to restore these ecosystems and repair legacies of injustice. This document will otherwise stand, not only as legally insufficient, but also an exercise in avoidance and cowardice. Californians deserve better.	13.6, Public Trust and Water Code Section 13241 Analyses. Staff Report Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, includes many commitments from the State Water Board for continued action and engagement throughout the Bay-Delta Plan Update process. For example, Section 11.4.7, Commitment to Ongoing Engagement and Coordination, describes engagement with tribes throughout the adaptive management phase of the Bay-Delta Plan when the Board considers and implements adaptive actions as needed to improve the effectiveness of implementation actions. Please see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for additional discussion on tribal engagement and outreach. Since release of the 2023 draft Staff Report, the proposed plan amendments have been revised and additional information on the regulatory pathway and implementation methodology have been provided in Section 13.3.3, Regulatory Pathway, and Section 13.3.5, Implementation Methodology. The implementation methodology includes information on how water rights may be curtailed when water is not available based on water right priorities. The Staff Report contains information on the over appropriation of water in the Sacramento/Delta watershed in Section 2.7, Existing and Future Water Rights in the Sacramento/Delta Watershed. The Staff Report states, "a review of the water rights records in the Sacramento/Delta watershed included in the demand dataset shows that the total volume of water authorized for diversion in the Sacramento/Delta watershed exceeds the total average unimpaired outflow from the Bay-Delta watershed." Please see Common Response 1.5, Trinity River, for a discussion on Trinity River provisions to avoid redirected impacts.
256	3	CEQA Policy and Legislative Intent CEQA, its legislative intent language, and a large body of case law have established clear parameters for what constitutes an adequate environmental impact review. Lead agencies must seek to avoid harm, mitigate impacts when feasible, and "consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." [Footnote 1: 14 Cal. Code Regs, § 15126.6; see also Public Resources Code, Sections 21000-21006.] The "foremost	Chapter 9, Proposed Voluntary Agreements, of the 2023 draft Staff Report adequately discussed the Voluntary Agreements as they were proposed at that time. The operative provisions of the Voluntary Agreements are incorporated in the VA pathway that is analyzed in Chapter 13, Revised Proposed Plan Amendments. Chapter 13 additionally explains the role that the regulatory pathway would play in the event that VA pathway actions do not meet specified goals. See Common Response 1.3, Revised Proposed Plan Amendments, regarding the regulatory pathway and the VA pathway.

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		principle” of CEQA is that “the Legislature intended the act ‘to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” [Footnote 2: Sierra Club v. County of Fresno (2018) 6 Ca.5th 502, 511 [quoting Laurel Heights Improvement Assn. v. Regents (1988) 47 Cal.3d 376, 405].] Decision-makers and the public cannot be deprived of “material necessary to informed decision-making and informed public participation.” [Footnote 3: Id. at 520.] Rather than allowing agency environmental review to stack the deck in one direction, CEQA requires an “interactive process of assessment of environmental impacts and responsive modification” designed to protect the environment. [Footnote 4: County of Inyo v. City of Los Angeles (VI)(1984) 160 Cal.App.3d 1178, 1183..] An “artificially narrow” approach to project purposes and objectives lies outside the agency’s discretion, because utilizing it would transform the assessment CEQA requires into an “empty formality.” [Footnote 5: We Advocate Thorough Environmental Review v. County of Siskiyou (2022) 78 Cal.App.5th 68, 693.]. The project description must be “accurate, stable, and finite.” [Footnote 6: Washoe Meadows Community v. Department of Parks & Recreation (2017) 17 Cal.App.5th 277, 286-288.] Assessment of the project’s direct, indirect, and cumulative impacts must “set forth sufficient information to foster informed public participation and reasoned decision making.” [Footnote 7: City of Long Beach v. City of Los Angeles (2018) 19 Cal.App. 5th 465, 488.] “Nonspecific and general” responses to comment may be deemed inadequate. [Footnote 8: Cleary v. County of Stanislaus (1981) 118 Cal.App.3d 348, 358.] The SED’s stated attempt to fulfill CEQA requirements is undermined throughout the document in multiple ways. First and foremost, the inclusion of the Voluntary Agreements (VAs) as a feasible alternative cannot be reconciled with CEQA’s basic tenets. The purpose of the SED is to evaluate the impacts of a regulatory program – the Bay-Delta Water Quality Control Plan. A regulatory program, by definition, comprises regulations. The VAs are not a regulatory program. Rather, they are agreements between water management agencies that would otherwise be subject to regulation to meet legal duties (e.g., mandatory and	See Common Response 7.1, General CEQA and Approach to the Analysis, regarding adequacy of the project description and Common Response 7.24, Alternatives Analysis, regarding the range of feasible alternatives and the feasibility of alternatives included in the Staff Report.

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		enforceable rules). Conflating VAs with regulatory requirements creates an unstable project description, contrary to CEQA. [Footnote 9: “[A] stable description permits in the environmental review process. Without that, the purposes of CEQA are nullified and the statute is violated.” Southwest Regional Council of Carpenters v. City of Los Angeles (2022 76 Cal.App.5th 1154, 1174.)] Furthermore, the VAs by design would not achieve the goals for ecosystem recovery that the Board has defined in the SED. Rather, they would attempt to achieve more limited environmental objectives (SED 9-1 to 9-5). Those objectives are demonstrably insufficient according to the Board’s scientific basis report. Thus, the Vas are neither a reasonable nor feasible alternative, and should not have been included in the SED.	
256	4	Another clear CEQA violation stems from deficient and missing analysis. The SED does not contain a public trust analysis, contrary to the well-established doctrine that “[t]he state 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.” [Footnote 10: National Audubon Society v. Superior Court (1983 33 Cal.3d 420, 446.)] One core component of a public trust analysis is assessing feasibility via an evaluation of benefits and costs. The SED cannot perform this function because of its meager attempt to analyze benefits of more restorative flow scenarios (65 and 75 percent unimpaired flow and modular alternatives) and its refusal to grapple with other aspects of the regulatory program, such as temperature standards, restrictions on water rights permits, fish passage requirements, and habitat management and restoration needs (as described in detail below).	Please see Common Response 1.2, Water Quality Control Planning Process, for discussion on the public trust doctrine as it relates to the Staff Report. Section 13.6, Public Trust and Water Code Section 13241 Analyses, summarizes the 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. This analysis contains discussion of both the regulatory and VA pathways. 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.
256	5	The SED is also missing climate change analysis despite multiple acknowledgments of climate change impacts to hydrology and a Board Resolution [Footnote 11: State Water Board, Resolution 2017-0012 (2017).] which directs climate change analysis for Board decisions. These omissions are evidence of the need for the Board to start over and fully comply with the law in the next iteration.	Please see Common Response 4.2, Drought and Climate Change, for further information regarding the consideration of climate change in the Staff Report and consistency with regulatory requirements and other policies.
256	6	A further inexcusable omission is the exclusion of the Trinity River from the SED analysis. As the SED acknowledges, the	The Bay-Delta Plan is developed for the Bay-Delta watershed and not the Trinity River. The Trinity River is not included in the plan

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		Trinity River provides a substantial amount of water into the Sacramento River on an annual basis (SED 2-20). While the Board may seek to define those diversions as baseline conditions, it is not absolved from evaluating impacts to the Trinity from different regulatory program alternatives. The omission is particularly egregious because the Trinity River ecosystem is integral to the culture and survival of tribes and the Board has committed to repairing relations with tribes in its work.	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. The revised proposed Plan amendments contain a provision to ensure that implementation of the Bay-Delta Plan, including the VA pathway, does not result in redirected impacts on native fish and wildlife resources in the Trinity River watershed, including temperature and instream flow impacts. The U.S. Bureau of Reclamation will be required to report at least annually to confirm there are no redirected impacts on the Trinity River from implementation of the current updates to the Bay-Delta Plan. As part of the annual and periodic review processes, and more often if needed, the State Water Board will evaluate whether any additional actions are needed to address any redirected impacts on the Trinity River or to ensure that beneficial uses are protected on the Trinity River, in consultation with the North Coast Regional Water Quality Control Board. Please see Common Response 1.5, Trinity River, on how the Bay-Delta Plan Update relates to the Trinity River.
256	7	Finally, the SED lacks clear and meaningful goals. The SED's broad narrative objectives (7.1-5, 7.1-6) are important, but they are insufficient for a regulatory program that involves allocation of a scarce resource. What are the numeric objectives for species survival under different hydrologic conditions? (This is critical because as the SED notes, there is fish mortality in the driest years even without impaired flows). What are the goals for minimizing harms and restoring dignity to tribes and environmental justice communities? What is a reasonable amount of disruption to agricultural operations? Without clear and measurable goals, the Board cannot adequately do the feasibility and balancing analyses that are required under the public trust. Moreover, it cannot evaluate the efficacy and equity of the regulatory program it ultimately adopts. These deficiencies are CEQA violations if left uncorrected, but	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding biological goals and tribal engagement and traditional ecological knowledge. Also see Common Response 11.1, Tribal Engagement and Tribal Beneficial Uses, for discussion on tribal beneficial uses and incorporation into the Bay-Delta Plan. Also see Common Response 10.1, Economically Disadvantaged Communities, for concerns regarding racial equity and the Bay-Delta Plan Update. 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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		they also present a pattern of ongoing biases and discriminatory practices. What value are the Board's commitments to tribal engagement, racial equity, and climate resilience when the environmental review for a major program pays them little more than lip service? As discussed below, the SED's framing of recent history provides yet another example for why people are cynical and contemptuous of government.	
256	8	Narrative Bias While every document conforms to its authors' biases, honest authors enunciate their biases and attempt to provide an even-handed assessment of information. The SED does neither. Rather, it makes unsupported claims and mischaracterizations. The most egregious of these are the following: - The claim that fixed flow requirements would not allow for adaptive management (SED 7.2-16)	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 Section 3.13, Method for Developing Environmental Flows, of the Staff Report for more background on different flow regimes and environmental flows. This section also explains proposed inflow requirements and adaptive implementation, and how it differs from a fixed flow requirement.
256	9	Narrative Bias While every document conforms to its authors' biases, honest authors enunciate their biases and attempt to provide an even-handed assessment of information. The SED does neither. Rather, it makes unsupported claims and mischaracterizations. The most egregious of these are the following: - The claim that more protective unimpaired flow requirements are infeasible due to cold water storage limitations (SED 5-16)	Please see the response to comment 256-13.
256	10	Narrative Bias While every document conforms to its authors' biases, honest authors enunciate their biases and attempt to provide an even-handed assessment of information. The SED does neither. Rather, it makes unsupported claims and mischaracterizations. The most egregious of these are the following: - The assertion that the Board's actions (and inaction) did not contribute to the current state of ecosystem degradation (SED 2-120, 2-121)	The referenced pages of the 2023 draft Staff Report provide an overall profile of the water rights and associated diversions within the Sacramento/Delta watershed and a specific description of the obligations of the CVP and SWP (Projects) to meet current Bay-Delta Plan objectives. The cited assertion is not found.

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256	11	Narrative Bias While every document conforms to its authors' biases, honest authors enunciate their biases and attempt to provide an even-handed assessment of information. The SED does neither. Rather, it makes unsupported claims and mischaracterizations. The most egregious of these are the following: - The characterization that voluntary implementation pathways could achieve the environmental objectives (SED 5-9 to 5-13)	For updated information on voluntary implementation plans, now referred to as local cooperative solutions, please see Chapter 13, Revised Proposed Plan Amendments, and Common Response 1.3, Revised Proposed Plan Amendments. Please also see Common Response 1.2, Water Quality Control Planning Process, for information on reasonable protection of fish and wildlife.
256	12	The Board's scientific basis report (Scientific Report) documents that aquatic species require certain baseline conditions for survival (Scientific Report, 1-20). When those conditions, specifically flow and temperature, are not met, mortality is high. Contemporary dry years with low flows and high temperatures have seen significant reductions in fish populations, forcing the closure of commercial fishing in 2023. Protective fixed flow requirements would ensure that there is always enough cold water flowing for species survival, especially in critically dry years. Furthermore, fixed flow requirements for dry years do not preclude adaptive management in wet years. For example, the plan could allow for surface water diversions for groundwater recharge (by Groundwater Sustainability Agencies meeting certain criteria (i.e., protections for domestic supplies) during wet years. Moreover, the Board's history with adaptive management has often been maladaptive. During dry years, the Board has granted requests for Temporary Urgency Change Petitions (TUCPs) to waive the existing insufficient water quality rules (SED 2-120, 2-121). If the Board adopts insufficient protective standards in the current plan update, TUCPs will continue to be a feature of dry year management. The purpose of adaptive management is not to react to (foreseeable) dry conditions by waiving environmental standards. Rather, it is to allow for adjustments from a defined set of rules to meet key objectives. For the Bay-Delta plan, those objectives should include preventing massive fish mortality in dry years. Thus, there is no reasonable basis for the Board's rejection of fixed flow scenarios.	As described in Section 7.2.3.8, Other Alternatives Considered, of the Staff Report, more rigid flow regimes that do not provide the functionality and variability of flows do not meet the project purposes and goals. Further, a fixed flow schedule is not adaptive to the changing climate. Section 5.4.2.1, Existing Requirements, discusses certain minimal instream flows that remain in place on the Sacramento River at Rio Vista. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of TUCPs. The revised proposed Plan amendments address the full range of predicted hydrological conditions and do not assume the use of TUCPs.

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256	13	Regarding the “high” flow scenarios (65/75% unimpaired flow), the SED claims that they would significantly impact cold water storage reserves and are therefore infeasible (SED 5-16). However, the SED’s projections of end-of-water-year storage in dry years (and on average) shows that not all reservoirs would face significant depletions in cold water storage. In fact, the state’s largest reservoir, Shasta, would increase its cold water storage, while Oroville, its second largest, would see reductions of less than 10% even in critically dry years (SED 6-49). [Footnote 12: As shown in Table 6.3-11, the Sacramento River reservoirs, which have the greatest total storage due to Lake Shasta, would have more cold water reserves in critically dry years.] Moreover, the SED presents no evidence that reservoir operators would be unable to manage storage and releases safely under the 65 and 75 percent unimpaired flow scenarios. Furthermore, since the SED does not contain numeric temperature objectives, there is no verifiable assessment of whether the more protective flow scenarios would allow for sufficiently cold water temperatures throughout the watershed. The SED does present evidence, however, that under the more protective flow scenarios fish survival would increase (e.g., Table 3.14-4). Thus, readers are left to speculate about what criteria the Board used to determine certain levels of water supply reductions are unreasonable. Regardless, there is no weighing of benefits and costs to different species and stakeholders. The SED should contain a clear rationale for the proposed plan amendments. Moreover, the evaluation of alternatives should include meaningful feasibility assessment. The SED’s deficiencies in supporting its policy recommendation illustrate bias masquerading as analysis.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report does not state that the high flow scenario is “infeasible.” Instead, it identifies increases in water supply costs and increasing challenges to cold water conservation at the 65 and 75 scenarios. Table 6.3-10 in the 2023 draft Staff Report identifies overall reductions in end of September storage in almost every tributary under the 65 and 75 scenarios. As seen in Section 6.3, Changes in Hydrology, Tables 6.3-8 and 6.3-9, Shasta Reservoir would see an average reduction of 6 percent and 4 percent in carryover storage as compared to baseline across all water year types for the 65 and 75 scenarios, respectively. Oroville would see an 8 percent and 15 percent reduction, respectively. In just critical water year types, Shasta would see an increase due to the fact that carryover storage objectives have far more effect under drier critical-year conditions and contribute to higher carryover storage compared with baseline. Although reductions may be smaller for some tributaries, or some tributaries may see increased storage under some hydrological conditions, that does not change the overall conclusion. For an analysis of the water temperatures expected to result from the flow scenarios, including a comparison of expected temperatures to multiple temperature indicators, please see the analysis in Section 7.6.2.4, Impact Analysis, of the Staff Report. This analysis shows larger temperature effects under the higher flow scenarios. Please also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for a description of how carryover storage target ranges combined with reductions in spring reservoir storage result in increasing constraints on availability of water in the summer at higher unimpaired flow requirements. Summer reservoir releases are needed for water supply, instream flow, and cold water habitat. The Staff Report includes a quantitative assessment of the provision of cold water temperatures in the Sacramento, Feather, and American Rivers for the flow scenarios in Appendix A6, Water Temperature Modeling and Fish Assessment for the

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			Sacramento, Feather, and American Rivers. Appendix H1b, Water Temperature Modeling and Fish Assessment for the Sacramento, Feather, American, and Yuba Rivers, provides updated water temperature modeling results for the flow scenarios with the addition of new water temperature results for the Yuba River. Please see Common Response 1.2, Water Quality Control Planning Process, for information on the reasonable protection of beneficial uses, and Common Response 7.24, Alternatives Analysis, for information on the feasibility of alternatives.
256	14	Likewise, in its characterization of the factors responsible for the current state of ecosystem decline, the SED is manifestly biased. While the document acknowledges actions the Board took, including granting TUCPs and delaying Bay-Delta Plan regulatory development for drought response and VA negotiations, it does not describe the consequences of those decisions. Fish populations in the Delta watershed declined precipitously during the 2011-2016 drought period when the Board was busy waiving environmental standards and focusing its attention on urban conservation and smaller river systems (i.e., the Russian River). Beginning in 2019, when the Board could have been implementing its Phase I decision and assembling the Phase II staff proposal, it instead placed a hold on Phase I implementation and Phase II development to allow the VA parties to negotiate (SED 9-3). Meanwhile, the federal government (under the most environmentally hostile leadership since the Reagan administration) released biological opinions allowing for more water diversions, while the state's Department of Fish and Wildlife released a status quo Incidental Take Permit (ITP) permitting ongoing massive fish kills in the Delta. As drought conditions returned in 2020, fish populations declined again.	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the VA process, descriptions of the State Water Board's regulatory pathway and the proposed voluntary agreement pathway, and temporary urgency change petitions (TUCPs). See also Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion of the level and scope of analysis conducted in the Staff Report. See also Common Response 4.2, Drought and Climate Change, for a discussion on drought response measures. Please also note that the adaptive implementation provisions contained in the revised proposed Plan amendments and described in Chapter 13 of the final Staff Report, Revised Proposed Plan Amendments, which would allow the State Water Board to adjust the percent of unimpaired flow required in response to changing hydrologic conditions, may reduce the need for TUCPs and temporary urgency change orders. Furthermore, in Section 4.6 of the December 2025 revised draft Bay-Delta Plan, the Board identifies "methods to reduce the incidence of temporary urgency change petitions related to Plan requirements" as a topic for evaluation during periodic review.
256	15	Actions have consequences. In the historical context, the Board seems to understand this, which is why its resolutions and policies describe harms inflicted on BIPOC communities. [Footnote 13: State Water Board Resolution 2021-0050.] The SED includes language on the harms to tribes perpetrated by white settlers (11-1 to 11-3). However, in its characterization of more recent Board actions, the SED lacks the same commitment	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 7.1, General CEQA and Approach to the Analysis, regarding the adequacy and feasibility of mitigation

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		to candor. “CEQA compels process. It is a meticulous process designed to ensure that the environment is protected.” [Footnote 14: Planning and Conservation League v. Department of Water Resources (2000) 89 Cal.App.4th 892, 911.] These mischaracterizations are a CEQA deficiency because they obscure the identification and thwart the assessment of potentially feasible mitigation measures and implicate other legal duties. Instead of delaying or deferring action of its own, it could avoid reliance on TUCPs under its duty to account for their tangible impacts on public trust resources, and to protect those resources whenever feasible. It is also implicates the Board’s duties beyond complying with law at its bare minimum. A government body that is not able to accurately and honestly evaluate the impacts of its actions is not capable of taking actions to repair those harms.	measures and see Common Response 1.2, Water Quality Control Planning Process, regarding the Public Trust Doctrine. Please see Common Response 4.2, Drought and Climate Change, regarding drought response measures. Also refer to Common Response 10.1, Economically Disadvantaged Communities, for responses to comments related to Racial Equity Resolution and Action Plan.
256	16	The absence of meaningful and objective assessment extends to the Board’s legal responsibilities to craft a regulatory plan. Not only are the VAs considered as a feasible alternative, but the SED includes copious language about the potential for voluntary measures to meet the SED’s objectives (SED 5-18 to 5-20). However, voluntary actions do not constitute a project under CEQA; nor can they fulfill the Board’s public trust responsibilities. The Board also claims erroneously that certain measures, such as habitat restoration, are outside the scope of its regulatory purview. Nevertheless, the Board’s legal authorities are well established in statute and case law. As described in detail below, the implementation plan is a series of descriptions about potential (discretionary) actions, including updating numeric temperature standards, fish passage, drought response measures, and declarations of full appropriation, which the Board uses to narrow the scope of its environmental analysis. This is piecemealing the program, which is a foundational CEQA violation. [Footnote 15: Berkeley Keep Jets Over The Bay Com. V. Board of Port Comr’s (2001) 91 Cal.App.4th 1344, 1358.]	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board authorities related to the water quality control planning process; Public Trust Doctrine; the consideration of beneficial uses; and authority to impose non-flow measures. Chapter 9, Proposed Voluntary Agreements, of the 2023 draft Staff Report adequately discussed the Voluntary Agreements as they were proposed at that time. The operative provisions of the Voluntary Agreements are incorporated in the VA pathway that is analyzed in Chapter 13, Revised Proposed Plan Amendments. Chapter 13 additionally explains the role that the regulatory pathway would play in the event that VA pathway actions do not meet specified goals. See Common Response 1.3, Revised Proposed Plan Amendments, regarding the regulatory pathway and the VA pathway. To the extent that this comment summarizes or introduces other comments, please see the substantive responses to those comments. See also Common Response 7.1, General CEQA and Approach to the Analysis, regarding the scope of the project described and analyzed.
256	17	Hydrology and Water Supply (Chapter 2) The SED responsibly documents the vast gap between water	The Sacramento/Delta update is intended to revise the Bay-Delta Plan fish and wildlife objectives and program of implementation to address prolonged and precipitous declines of native aquatic

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		rights claims and total water availability (SED 2-115 to 2-122). It also describes the potential for additional water demand due to population growth and pending water rights applications. However, instead of identifying and evaluating mitigation measures, such as a declaration of full appropriation (see Chapter 5 below) and a proactive plan to reduce water rights, the SED simply moves on.	species in the Sacramento/Delta and the ecosystem they depend on. (2023 draft Staff Report, Section 1.1, Introduction.) Establishing and implementing flow requirements will help ensure that a certain amount of flow remains instream for the protection of aquatic beneficial uses. This water would not be available for diversion.
256	18	Additionally, the SED fails to elucidate a source of tension between water rights and environmental protection law. The over allocation and inequitable distribution of water rights are impediments to ecosystem restoration. To remove those impediments, either the Board or the courts, or both, must take action to restrict and potentially reallocate damaging water uses by enforcing environmental protection law.	Please see the response to comment 256-17.
256	19	Moreover, because the SED does not contain a climate change analysis, there is no discussion of how existing and pending water rights affect the Board's ability to manage in increasingly extreme hydrology. Furthermore, because the regulatory language has not yet been written, there is no way to know how the Board would treat water rights claims under different in-stream flow scenarios.	Please see Common Response 4.2, Drought and Climate Change, for responses to comments regarding the climate change analyses. The Board's CEQA obligation to evaluate greenhouse gas emissions is addressed in Section 7.10, Greenhouse Gas Emissions, and corresponding sections in Chapter 9, Proposed Voluntary Agreements, and Chapter 13, Revised Proposed Plan Amendments. The Staff Report contains three separate analyses of how climate change impacts different aspects of the Bay-Delta Plan. Chapter 2, Hydrology and Water Supply, details (beginning at page 2-114) how climate change might affect the hydrology of the Sacramento/Delta watershed, but notes that exactly how the watershed will be affected is uncertain. Chapter 4, Other Aquatic Ecosystem Stressors, details (beginning at page 4-35) how climate change may exacerbate stressors of native fish and other organisms. Chapter 6, Changes in Hydrology and Water Supply, details (beginning at page 6-8) that "[t]here is great uncertainty of how global change may affect the local climate in the study area. Changes in sea level, wind, temperature, and precipitation all may have large effects on the hydrology and available water supply. SacWAM modeling of climate change is not included at this time because of the uncertainty and lack of detailed climate change information required to produce inputs to the model." (page 6-8.) The exact effects of climate change on the watershed are uncertain.

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			The main purpose of the Statement Program is to create a central repository for records of diversions and uses of water. This repository differs from the records of appropriated water rights that are registered, permitted and licensed. A Statement is not a confirmed water right; it is simply a statement made by the person or organization who diverted and used the water. Divisions of Water Rights staff do not analyze the contents of a Statement or research the legal water right status of the diverter at the time of receipt.
256	20	For a CEQA analysis to be useful, it must evaluate reasonably foreseeable future conditions. The failure to conduct this evaluation in Chapter Two has cascading effects throughout the rest of the SED. The Board must cure this deficiency by integrating water rights management (e.g., verification, restriction, enforcement) into its plan of implementation and impacts analysis. As the Board has stated publicly, it intends to seek verification of dubious water rights claims. [Footnote 16: See https://www.nytimes.com/interactive/2023/12/14/climate/california-water-crisis-drought.html, accessed December 15, 2023.] To avoid piecemealing the regulatory program, it must include these actions in the SED.	Please refer to the response to comment 256-19. Chapter 2, Hydrology and Water Supply, discusses existing conditions. See Section 7.1, Introduction, Project Description, and Approach to Environmental Analysis, for the approach to analysis, including reasonably foreseeable compliance measures and response actions. The State Water Board already regulates California's surface water rights generally by issuing permits, licenses, and registrations for the diversion of water and investigating unauthorized diversion and unreasonable use of water. See Section 5.2.2, Water Rights, for an additional discussion of water rights. See https://www.waterboards.ca.gov/waterrights/ for more information on Programs in the Division and water right information generally. The Board has an Office of Enforcement, which also acts to enforce California water rights law. Sometimes, the work of the Office of Enforcement includes the validation of water rights claims. Other times, water rights claims are validated during the water rights application process. Still other times, water rights claims are litigated between water rights holders, and a court determines their validity. As explained in the revised proposed Plan amendments, as necessary the State Water Board will issue water right curtailments based on water right priorities for appropriative rights and pre-1914 appropriative and riparian claims of right, including adjudicated rights. In order to inform the curtailments, the State Water Board will develop an implementation methodology to determine when water is not available at water right holders' priorities of right. This methodology will be

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			developed through a public process within one year of approval of the current Plan amendments by OAL. Within two years of approval of the current Plan amendments by OAL, the State Water Board will adopt curtailment regulations consistent with the above that will identify specific curtailment procedures and requirements. Those requirements will include monitoring and reporting of diversions and related information needed to inform curtailment decisions, which may be in addition to other required monitoring and reporting. In the past, most water users in the watershed have not had any limitations on their diversions to ensure that the Bay-Delta Plan objectives are met, and water quality objectives have been implemented primarily by the Projects (the collective term for CVP and SWP). The only inflow objectives for the Sacramento River/Delta tributaries in the Bay-Delta Plan are minimal monthly average flows on the Sacramento River at Rio Vista for September through December that range from 3,000 to 4,500 cubic feet per second (cfs) based on water year types. D-1641 currently assigns responsibility to the Projects for meeting these flow requirements. In addition, the Projects must be operated to meet year-round Delta outflow objectives. Note that the subject of the Bay-Delta Water Rights Hearing in 1998-1999 was the assignment of responsibility for meeting the objectives in the 1995 Bay-Delta Plan. The State Water Board conducted Phases 1 through 7 of the Bay-Delta Water Rights Hearing to determine some of the responsibilities for meeting the objectives in the 1995 Bay-Delta Plan and resolving other related issues prior to the adoption of Decision 1641. Additional flow-dependent objectives for fish and wildlife were being met by the DWR and the USBR pursuant to their obligations under the state and federal Endangered Species Acts. Other unallocated objectives would be implemented by the DWR and the USBR in the interim until the responsibilities to meet the flow-dependent objectives were permanently allocated. Phase 8 of the Bay-Delta Water Rights Hearing, which would have allocated responsibility to water users for the remaining objectives not yet assigned for the Sacramento, Calaveras and Cosumnes Rivers, was stayed and eventually dismissed based on an independent commitment from the DWR and the USBR to meet the flow-dependent objectives for an interim and indefinite period unless and until

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			DWR or the USBR requested that the State Water Board convene a hearing to consider allocating responsibilities to meet the flow-dependent objectives to other parties. (WR Order WR 2001-05.) There are currently no other instream flow requirements for the Sacramento River basin and Delta eastside tributaries in the Bay-Delta Plan. The proposed Plan amendments would provide a regulatory regime that addresses comprehensive minimum instream flow and cold water habitat provisions and distribute the responsibilities more broadly across the watershed in a way that adjusts to available supplies and provides for flexibility. With the exception of recent emergency drought regulations, implementation of the water rights system watershed-wide has never been done before. Long-term comprehensive water right implementation will take time and effort. The State Water Board is already making significant improvements in accounting and tracking of water rights more generally, and these efforts will assist in Bay-Delta Plan implementation moving forward. As discussed in Section 2.7, Existing and Future Water Rights in the Sacramento/Delta Watershed, of the 2023 draft Staff Report, all diverters whose diversion and use are not reported by a watermaster are required to submit annual reports of water diversion and use (annual reports) to the State Water Board electronically through the Electronic Water Right Information Management System (eWRIMS) Report Management System (RMS). That section has been updated to reflect the transition to the California Water Accounting, Tracking, and Reporting System (CalWATRS), which is the state's new and improved water rights data system. In addition, Water Measurement Regulation (SB88) in chapter 2.8 of title 23 of the California Code of Regulations requires diverters who divert more than 10 acre-feet of water per year to measure and report their diversions. The State Water Board agrees that accurate measurement data is critical for managing and making informed decisions regarding California's water supply, especially during droughts, and will be instrumental for Bay-Delta Plan implementation. The State Water Board has authority to request additional information if needed pursuant to Water Code sections 1051, 13165 and 13267.

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256	21	Exclusion of the Trinity River The SED must analyze impacts associated with diversion from the Trinity River. It is an integral part of the Board's public trust obligations along with its written commitment to tribal equity. Current conditions on the Trinity and Klamath rivers are dire for salmon populations, jeopardizing the livelihoods of the Yurok, Karuk, and Hoopa Valley tribes [Footnote 17: See https://www.siskiyoudaily.com/story/news/2021/07/14/salmon-trucked-iron-gate-until-conditions-improve-klamath-river/7963967002/, accessed January 17, 2024.] and benefits associated with the Klamath dam removals. Moreover, the temperature standard in Water Rights Order 90-5 does not provide adequate protection for salmon survival. (See Figure 1 [Exhibit 1] below). Trinity River Coho salmon, a federal and state threatened species, suffered nearly 75% egg mortality at Trinity River Hatchery in 2021 due to warm water because of low Trinity Lake storage. (See Figure 1 below). [Footnote 18: This graph and other analysis were provided to the State Water Board in an April 27, 2022, email from Justin Ly, National Oceanic and Atmospheric Administration, to Eileen Sobeck, Executive Director, State Water Board. (See attachment 2 [Attachment 2]).] There is currently no plan or priority by either the North Coast Regional Water Board or the Central Valley Regional Board to update basin plan temperature objectives, nor does the SED provide any indication that it will use the Bay-Delta Plan update to revise WRO 90-5 to adequately protect Sacramento and Trinity salmon species and runs, listed or otherwise. This lack of action is especially concerning given the Board's acknowledgement that, "Order 90-5 did not address the needs of the Trinity River directly." [Footnote 19: October 23, 2023, letter from Eileen Sobeck, Executive Director, State Water Board, to Michael Palmer, titled "RESPONSE TO CONCERNS REGARDING TRINITY RIVER WATER TEMPERATURE ISSUES." (See attachment 1 [Attachment 1]).]	Please refer to the response to comment 256-6. While the Trinity River is not specifically mentioned in the Governor's Salmon Strategy, it cites the removal of four dams on the Klamath River as the largest river restoration project in American history. Dam removal on the Klamath River, which once hosted many of the most prodigious salmon runs in California, will improve river health for salmon by improving water quality and restoring access to over 420 miles of habitat for the first time in a century. (State of California 2024.) The Trinity River is the largest tributary of the Klamath River and would likely be a priority to maximize the benefits of significant State and federal resources that have gone toward restoring the Klamath River. Water quality objectives contained in the North Coast Basin Plan still apply and have not been waived. The State Water Board will evaluate whether any additional actions are needed to address any redirected impacts on the Trinity River or to ensure that beneficial uses are protected on the Trinity River, in consultation with the North Coast Regional Water Quality Control Board. The State Water Board could consider recommendations from tribes and other interested parties on whether existing objectives on the Trinity River are adequately protective or whether new objectives are needed, including temperature targets for Trinity Lake. It would be helpful if Trinity River parties collaborate on proposed recommendations. Please see Common Response 1.5, Trinity River, for a discussion of state law, including Order 90-5. Interested parties should raise issues or concerns relating to implementation and compliance with Water Right Order No. 90-5 in that process.
256	22	Additionally, Appendix G3 to the SED, (pages 176-177 and 180-181) shows negative impacts to Trinity and Shasta cold water storage from the Vas. It is a near certainty that additional demands on cold water storage from Trinity and Shasta	In response to public comments, a provision has been added to the revised proposed Plan amendments that prevents redirected impacts on the Trinity River for both regulatory and VA pathways that is reflected in the updated modeling for Chapter

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		reservoirs will result in additional downstream salmon egg mortality, especially given the inadequate temperature requirements and protections found in WRO 90-5 and the two Regional Board Basin Plans. The SED must cure these deficiencies by including impacts to the Trinity River in its analysis and including protective temperature standards in its plan of implementation.	13, Revised Proposed Plan Amendments. Please also see Common Response 1.5, Trinity River, on consideration of the Trinity River watershed.
256	23	[Exhibit 1: Graph titled Figure 1. Coho salmon egg survival and Trinity River Hatchery water temperatures, 2021]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
256	24	Proposed Plan Changes (Chapter 5) The Bay-Delta Plan is a watershed-wide regulatory program to balance ecosystem function against consumptive uses (e.g., agriculture and drinking water supplies). The need for a full analysis, as required by both CEQA and public trust case law, stems from a comprehensive set of proposed regulatory actions. The SED focuses on flow scenarios and future potential temperature control plans and lumps other program components into the discretionary category. This includes reservoir operations, fish passage, contaminant and predation controls, and habitat restoration. The SED asserts that the Board may consider certain elements, and states that some of the elements are beyond its regulatory authority. Not only is this a piecemeal approach, but it also mischaracterizes the scope of the Board's authorities. For flows, the SED includes a staff proposal and defined alternative flow scenarios, which allows for analysis. By stating a desire for voluntary implementation actions and not including specific proposed regulatory standards for any other water quality component, the SED evades its legal responsibility to analyze environmental impacts, rendering the SED incomplete. The authority and responsibility of the Board to include proposals and analysis for other water quality components is described below.	All elements of the revised proposed Plan amendments and all alternatives presented in the staff report are analyzed as required by CEQA, Porter-Cologne Water Quality Control Act, and all other applicable requirements. The regulatory pathway of the revised proposed Plan amendments includes adaptive management and local cooperative solutions provisions that enable tailoring implementation of the flow requirements to individual tributaries, including managing flow requirements and habitat restoration in concert to maximize benefits. The impact analyses are necessarily broad to cover these contingencies. Section 7.21, Habitat Restoration and Other Ecosystem Projects, evaluates the environmental impacts of non-flow ecosystem projects, including physical habitat restoration, fish passage projects, predation, and aquatic invasive species control. The State Water Board analyzed the project under consideration. If the State Water Board considers future action such as regulatory standards for other water quality components that would require additional analysis, that additional analysis will be performed at the future date. Information about the required components of local cooperative solutions (formerly referred to as voluntary implementation plans in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 Draft Staff Report) and the voluntary agreements can be found in Chapter 13, Revised Proposed Plan Amendments, of the final Staff Report and Common Response 1.3, Revised Proposed Plan Amendments. Please see Common Response 7.1, General CEQA and Approach to the Analysis, and Common Response 1.2, Water Quality

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			Control Planning Process. Please also see the responses to comments 256-25 to 256-30.
256	25	Temperature The SED recognizes the importance of water temperature for aquatic species survival. Indeed, it references the potential lack of late summer cold water storage as a reason for selecting a lower unimpaired flow scenario. Nevertheless, the implementation plan does not include numeric temperature objectives and has no tangible regulatory proposals. [Footnote 20: Section 5.4.3.3 contains a broad narrative objective.] The SED states that the Board will delegate the approval of annual temperature management plans to staff (SED 5-24) and that the Board may review objectives set by the Central Valley Regional Water Quality Control Board (SED 5-20, 5- 21). A more defined approach to temperature management, especially as climate change increases air temperature and extreme heat days, could potentially increase ecosystem function. Moreover, it is technically possible to install and manage temperature control systems at reservoirs. [Footnote 21: See https://docslib.org/doc/4911346/review-of-temperature-control-options-for-reservoir-release-flows, accessed December 18, 2023.] Therefore, the main issues are environmental benefits and economic costs, which should be considered under both CEQA and the Board's public trust responsibilities. The SED contains one paragraph (SED 8-114) on the costs and benefits of a temperature control system but lacks any systemic analysis.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the Staff Report includes a sufficiently detailed description of the Cold Water Habitat objective to inform analyses and implementation measures. Please see Common Response 1.3, Revised Proposed Plan Amendments, for responses to comments on the cold water habitat objective. Please see Section 7.21, Habitat Restoration and Other Ecosystem Projects, of the 2023 draft Staff Report for an evaluation of the impacts of temperature control device installation.
256	26	Fish Passage The SED discusses how the dams that block access to habitat have harmed fish populations and references the statutory requirements for dam owners to provide for fish passage SED 5-20, 5-22). But, instead of including specific regulatory proposals, the SED uses more conditional language about how the Board may use its authorities to require investments in fish passage (SED 5-42). As with temperature management, there are technical solutions for fish passage (e.g., trap and truck and construction of fish ladders). So again, where the SED should have analyzed benefits and costs of fish passage requirements it	The cold water habitat objective is purposefully flexible to allow for temperature management actions to be tailored to the specific circumstances of each tributary. As discussed in Section 5.4.3.3, Proposed Cold Water Habitat Objective, fish passage projects could contribute to compliance with the narrative cold water habitat objective. In addition, as outlined in the introduction of Section 5.5, Habitat Restoration and Other Complementary Ecosystem Measures, complementary actions, such as fish passages, could be developed by other agencies and parties, and could be considered a local cooperative solution. See Common Response 1.2, Water Quality Control Planning Process, for more information on the State Water Board's authority to

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		only includes brief summaries of fish passage projects in other watersheds (SED 8-113, 8-114).	impose non-flow measures. Specific fish passage project costs were not analyzed since specific fish passage projects are not a required component of this project. The environmental and economic impacts of fish passage projects are analyzed in Staff Report Sections 7.21, Introduction, and 8.8.2, Fish Passage Improvements, respectively. In addition, Section 7.21, Evaluation of Physical Habitat Restoration and Other Ecosystem Projects, states that all responsible entities for physical projects will conduct as appropriate, site-specific environmental analyses to evaluate project-level environmental impacts, alternatives, and mitigation measures. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for information on the level of detail in the analysis.
256	27	Fully Appropriated Stream System Declaration As noted in the discussion of Chapter Two above, the SED documents how the quantity of water contained in water rights permits far exceeds the actual amount of water in the system. However, there is no proposal to declare the entire watershed as fully appropriated. Any of the more protective flow standards (55/65/75% unimpaired flow) would result in less water available to existing water rights holders in drier years. Granting any additional permits would frustrate achievement of the flow objectives unless additional usage restrictions were placed on existing water users. A comprehensive and thorough environmental review requires assessment of these tradeoffs.	As described in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report, the proposed program of implementation would call for the State Water Board to consider additional FASS determinations for the Bay-Delta watershed to assist with implementation of the proposed changes to the Bay-Delta Plan.
256	28	Habitat restoration The SED claims that the Board does not have the ability to require habitat restoration (SED 5-41, 5-42). While this may be true for private riparian landowners, it is not true for the state and federal government agencies and public and private utilities that own and operate reservoirs and water conveyance infrastructure. All those entities hold permits from the Board and those permits can include habitat restoration conditions. Indeed, those conditions are the types of mitigation measures that must be evaluated in a CEQA analysis. Moreover, habitat restoration can include in-stream measures (e.g., creation of egg-	Please see Common Response 1.2, Water Quality Control Planning Process, on the State Water Board's authority to impose non-flow measures. The impacts of habitat restoration projects are analyzed in Section 7.21, Habitat Restoration and Other Ecosystem Projects, of the Staff Report. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for information on the level of detail in the analysis.

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		laying sites) that can be performed by either DWR or USBR, in consultation with tribes and fisheries management agencies. Thus, the lack of specific habitat improvement measures is yet another deficiency in the SED.	
256	29a	Furthermore, the basis for the proposed numeric objective (5.4.2.3) is inadequate on several counts. Most troublingly, it perpetuates the fallacy that it is permissible to trade- off flow for habitat by allowing for values as low as 45% unimpaired flows if certain voluntary agreements on habitat are met. However, this contradicts the scientific basis report, whose findings the SED acknowledges by stating, “Expected benefits to fish and wildlife are marginal in the 45 scenario ...” (SED 5-16). Thus, the idea that flow values between 45 and 55 percent unimpaired could be beneficial under any hydrologic conditions lacks merit.	Please see Chapter 4, Other Aquatic Ecosystem Stressors, of the Staff Report and Common Response 3.1, Fish Protection, for a discussion of the benefits of non-flow actions. The full quote from page 5-16 of the 2023 draft Staff Report is “Expected benefits to fish and wildlife are marginal in the 45 scenario but could be increased by implementing complementary ecosystem actions on some tributaries, it may not be possible to maintain cold water pool protections and any meaningful level of water supplies while meeting a higher flow level.” This quote clearly articulates that the 45 scenario would be expected to have increased benefits when combined with complimentary ecosystem actions such as habitat restoration.
256	29	Drought and climate change response Because fish mortality dramatically increases during drought periods, the SED must identify specific mitigation measures for droughts. Those measures must depart from past practice of waiving environmental standards through the approval of TUCPs. However, like the above topics, the SED only includes potential regulatory action instead of a clear proposal. Droughts are a feature of California’s hydrology, and their severity and frequency are increasing with climate change. The Board cannot simply assume that an unimpaired flow standard of 45-65% by itself will be an adequate drought response measure during consecutive dry and critically dry years. The lack of climate change analysis compounds these inadequacies. Section 5.6.2.3 has two paragraphs about climate change and focuses on minimum domestic water supply needs. The second paragraph mentions timeline and offramps, with no discussion regarding the conditions under which they might be granted, and to whom (SED 5-68). The Board has authority to ensure that minimum domestic supply needs are met and has set health and safety requirements in prior drought emergency regulations (e.g., on the Russian River). [Footnote 22: See https://www.waterboards.ca.gov/drought/russian_river/docs/rr	Please see Common Response 4.2, Drought and Climate Change, for responses to comments that raise issues with drought response measures and the inclusion of a climate change analysis in the Staff Report.

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		_reg_approval_oal.pdf, accessed December 18, 2023.] Therefore, the Board has no reasonable basis to not include a well-defined set of drought response actions within the Bay-Delta plan.	
256	30	In summary, Chapter Five demonstrates that a comprehensive water quality control plan is not under consideration. The SED's proposal is analogous to an air quality control plan that only considers vehicle emissions. Given the scientific and legal information at its disposal, the Board has no excuse for this inadequate proposal. The Board must update and recirculate the SED to fulfill its legal obligations.	The Staff Report analyzes a full suite of options and contingencies, including both flow measures with adaptive management and local cooperative solutions provisions that enable tailoring implementation of the flow requirements to individual tributaries, including managing flow requirements and habitat restoration in concert to maximize benefits. Please see Common Response 1.2, Water Quality Control Planning Process, for information on the legal requirements for water quality control planning. Please also see Common Response 7.1, General CEQA and Approach to the Analysis.
256	31	Changes in Hydrology and Water Supply (Chapter 6) Although the SED describes many of the current factors that affect water supplies for human uses, it has significant omissions. When describing the effects of recent decisions from fisheries agencies (Biological Opinions and Incidental Take Permits), the SED notes that "Updates to the Biological Opinions (BiOps) and issuance of an Incidental Take Permit (ITP) have changed the requirements for operation of the SWP and CVP, though under most circumstances actual operations have not significantly changed." (SED 6-4) What it does not acknowledge is that the 2019 BiOps weakened the existing environmental protections [Footnote 23: See https://www.nrdc.org/bio/doug-obegi/trumps-bay-delta-biops-are-plan-extinction, accessed December 18, 2023.] and the 2020 ITP then used those federal opinions to justify additional fish mortality under state law. This omission matters because it diminishes transparency around which mitigation measures are feasible and effective. Specifically, it demonstrates that reliance upon fisheries agencies to establish protective standards is not a feasible mitigation measure. Also, it illustrates why the Board's preference for voluntary solutions is misguided. Without stronger regulatory requirements, voluntary measures based on existing standards will continue environmentally destructive levels of water diversions.	The commenter has not identified which specific mitigation measures they believe are infeasible due to alleged reliance on fisheries agencies, nor explained why they believe this would make those mitigation measures infeasible. Please see Common Response 1.1, General Comments, for information on the Federal and State Endangered Species Acts and Common Response 7.1, General CEQA and Approach to the Analysis, for information on mitigation measures. In addition, the VA pathway includes provisions to protect base flows. See Common Response 1.3, Revised Proposed Plan Amendments, for information on the protection of base flows in the VA pathway.
256	32	Another significant omission is the modelling of climate change impacts to hydrology. The SED states that modelling results will not be available until 2024 (SED 6-8, 6-9). The release of the SED	Please refer to Common Response 4.2, Drought and Climate Change, regarding climate change in Staff Report modeling,

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		without climate change analysis is not only a CEQA violation, it also directly contradicts the Board's own climate change resolution, which calls for climate analysis to inform the Board's decision making. Serious environmental analysis requires grappling with extreme scenarios, such as severe and extended droughts. Including those scenarios helps with risk management actions and disaster preparedness. The state has managed this for other climate impacts, such as extreme heat and sea level rise. [Footnote 24: See, for example https://opc.ca.gov/webmaster/_media_library/2023/07/SLR-Task-Force-Process-FAQ-508.pdf , accessed December 18, 2023.] It is equally if not more imperative for hydrologic modelling.	consistency with regulatory requirements and other policies, and multi-year drought analysis.
256	33	A further critical omission is the lack of discussion about proactive agricultural water conservation actions. Section 6.6 discusses various ways to augment supplies, along with urban conservation and water transfers, but there is no detailed discussion of permanent land retirement and conversion efforts. The need for permanent reductions in irrigated acreage is well documented, even by institutes with strong financial ties to agribusiness. [Footnote 25: See, for example https://www.ppic.org/publication/water-use-in-californias-agriculture/ , accessed December 18, 2023.] Moreover, the SED excludes existing agricultural land conversion programs, such as the state's multi-benefit land repurposing program run by the Department of Conservation [Footnote 26: See https://www.conservation.ca.gov/dlrp/grant-programs/Pages/Multibenefit-Land-Repurposing-Program.aspx , accessed December 18, 2023.], along with the impacts of state renewable energy policies that are driving investment in solar and wind projects in the Central Valley. [Footnote 27: See https://www.latimes.com/environment/newsletter/2021-07-08/solar-panels-on-farmland-california-water-power-crises-boiling-point , accessed December 18, 2023.] These omissions are significant because who bears the costs on both the supply and demand side of responding to reduced water availability matters. Just because the Governor's water strategy is tilted towards supply augmentation does not allow the Board to skip evaluation of reasonably foreseeable demand side management. The SED cannot exclude feasible alternatives from its analysis.	Commenter is incorrect that the Staff Report fails to evaluate demand side management. The proposed Plan amendments require water to remain instream which in turn reduces water supply available for demand, which will further incentivize demand management. As explained in Section 7.1, Introduction, Project Description, and Approach to Environmental Analysis, implementation of the numeric flow requirements would reduce Sacramento/Delta water supplies at certain times and locations. In response to reduced Sacramento/Delta surface water supplies, water users may choose to modify their water supply portfolios by increasing the use of other sources of water and maximizing the use of existing water supplies. Other water management actions affect the overall analysis in two ways. First, environmental impacts and economic effects from reduced Sacramento/Delta surface water supplies likely would be less given these efforts. Second, other water management actions may result in their own environmental impacts that must be disclosed and analyzed. The analyses includes a range of possible outcomes and presents a worse-case scenarios for CEQA impact conclusions; however, the analyses also makes clear that in many cases the impacts can be mitigated to less than significant. The decision to fallow land is an economic decision that will be made by individual growers based on the availability and cost of supplies in their area. Staff recognizes that supply would likely be driven by possible amendments to the Bay-Delta plan, and the economic impacts to agriculture, including those of the decision to fallow land, are

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			analyzed in Section 7.4, Agriculture and Forest Resources and Chapter 8, Economic Analysis and Other Considerations. “A series of intermediate decisions lie between imposition of the proposed Plan amendments unimpaired flow requirements and the conversion of farmland to nonagricultural uses. Individual irrigation districts will make decisions about how to allocate the available surface water in accordance with established rules and regulations. Individual farmers will make cropping decisions, including the decision whether to fallow, idle, or permanently convert land.” (7.4-44) “The SWAP model estimates the cropping pattern that maximizes the net returns to agricultural production. It incorporates information on the availability of water supplies within a SWAP region... As conditions change within a SWAP-modeled region (e.g., the quantity of available SWP and CVP water supply decreases or the cost of groundwater pumping increases), the model optimizes production by adjusting the crop mix, water sources and quantities used, and other inputs. Land will be fallowed when that is the most cost-effective response to resource conditions. Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results, provides more details on the SWAP model, including the modeling methodology, model inputs, adjusted modeling parameters, and detailed model results.” (7.4-35) The Staff Report evaluates reasonably foreseeable methods of compliance and response actions that may be taken in response to the project, including conservation and more efficient use of water for agriculture. The Staff Report contains some discussion of land retirement programs in Section 7.4.2.10, San Joaquin Valley. In addition, Chapter 8 discusses financial assistance programs for agricultural water conservation, although the specific programs mentioned in the comment are not listed. Examples of agricultural water conservation projects funded by recent federal and state programs are provided but the list is not intended to be comprehensive. General programs that could help mitigate impacts from reduced Sacramento/Delta supply to agriculture if conversion were to occur are already sufficiently identified and a description of these additional programs cited

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			by the comment have been added to Chapter 8. Evaluating specific wind and solar projects would be speculative and beyond the scope of analysis that is required for the Bay-Delta planning process.
256	34	Environmental Analysis (Chapter 7) The environmental analysis chapter includes a discussion of how the SED is compliant with CEQA (Section 7.1) and description and analysis of alternatives (Sections 7.2 and 7.24). Although the SED claims compliance with CEQA regarding alternatives selection, a close read of CEQA's requirements shows it is false. CEQA mandates the identification of and focus on feasible (emphasis added) mitigation measures and alternatives. [Footnote 28: Public Resources Code, Sections 21002 and 21003(c).] Nevertheless, the Board has included alternatives that are demonstrably infeasible given the Board's declaration that the plan update (the "project" per CEQA) is "intended to be a restoration action." (SED 7.1-25). First and foremost, the Vas are infeasible because they are not a regulatory program, subvert public trust protection requirements, and violate racial equity commitments. Excluding the Vas to focus on feasible alternatives was and is within the Board's discretion. Second, the SED's "low flow" scenarios (35 & 45% unimpaired flow) are infeasible because they would not accomplish the ecosystem restoration goals. As the SED and Scientific Report document, benefits to fish under those scenarios would be "marginal" at best. Thus, the Board had no justifiable reason to include and analyze them.	The revised proposed Plan amendments include a pathway for water rights included in approved Voluntary Agreements (VA pathway) and regulatory provisions for water rights not included as part of approved VAs (regulatory pathway), with both pathways having regulatory effect. See Common Response 1.3, Revised Proposed Plan Amendments, for more information about the Voluntary Agreements. See Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses and public trust; Common Response 10.1, Economically Disadvantaged Communities, for a discussion of concerns regarding racial equity and the Bay-Delta Plan Update, including concerns related to the Voluntary Agreements; and Section 7.24.3.6, Achievement of Project Purpose and Goals of the Low Flow Alternative (Alternative 2), of the 2023 draft Staff Report.
256	35	Furthermore, alternatives that offer additional restoration benefits, such as the Extended Export Constraint (Alternative 4c) and Modular Drought Alternatives (Alternatives 5a and 5b) were not emphasized as CEQA directs. They were not analyzed in the economics chapter and do not include any quantitative assessment of benefits and impacts. Instead, for Alternative 4c, SED uses qualitative language to conclude that "the water supply impacts of this alternative would be very significant and may not be considered reasonable ..." (SED 7.24-46). The Board offers no context or criteria for what constitutes "reasonable" nor any assessment of whether the water supply impacts could be	The Staff Report considers a reasonable range of alternatives and analyzes their environmental impacts as required by CEQA and as further discussed in Common Response 7.24, Alternatives Analysis. The quoted language concerning water supply impacts is drawn from a discussion of Alternative 4c's ability to meet the project purpose and goals, not from the analysis of environmental impacts. CEQA does not require that any particular alternative be "emphasized," nor does it require analysis of alternatives' economic impacts or benefits.

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		mitigated. Unfortunately, these unsupported conclusions are pervasive throughout the SED and used to dismiss the possibility of more protective standards. To fulfill its legal obligations, the Board must do two things: 1) focus its analysis on feasible alternatives; and 2) conduct a detailed and reasoned analysis of the benefits and costs of those alternatives. This includes transparency about what level of reductions to agricultural water supply the Board considers to be reasonable.	
256	36	Economics (Chapter 8) The SED's approach to economic analysis is one-sided and incomplete; and it contravenes the Board's public trust evaluation and racial equity obligations. Additionally, it utilizes outdated data and omits contemporary approaches to environmental economics. Along with consideration of the Vas, it presents the starkest evidence of the Board's hypocrisy – claiming to care about racial equity and environmental protection while completely dismissing them in a foundational analysis and regulatory program. The Introduction to Chapter 8, which describes the economic analysis undertaken, contains no references to the Board's racial and climate equity commitments. However, the Board's climate change resolution states that the Board will consider environmental justice and tribal impacts and when developing and enforcing instream flow requirements, while the racial equity action plan directs staff to "Identify and implement actions to address climate change impacts, related to State Board authorities, found likely to have disproportionate impacts on BIPOC communities or interests." [Footnote 29: State Water Board, Racial Equity Action Plan, January 2023.] Chapter 8 has no analysis responsive to either of these directives.	Pursuant to the State Water Board's Racial Equity Resolution and Racial Equity Action Plan and Climate Change Resolution, racial equity issues and environmental impacts and economic effects relevant to economically disadvantaged communities are discussed in multiple sections and chapters of the Staff Report. Chapter 8, Economic Analysis and Other Considerations, discusses economic effects of the proposed Plan amendments, including economic effects relevant to DACs. Chapter 8, Economic Analysis and Other Considerations, also summarizes potential sources of funding for municipal water supply and conservation. In addition, Chapter 10, Economically Disadvantaged Communities, provides an overview of DACs and their water supplies and incorporates information from several other sections and chapters to summarize potential effects of the Sacramento/Delta update to the Bay-Delta Plan on DACs. Chapter 10, Economically Disadvantaged Communities, provides regulatory background and includes a section (Section 10.3.4) on the State Water Board's Racial Equity Resolution and Racial Equity Action Plan. Section 2.8, Existing Water Supply, provides additional overview information related to DACs in the study area. Section 7.12.1, Surface Water, discusses several surface water quality issues relevant to DACs, such as harmful algal blooms, and potential environmental impacts related to changes in municipal water supplies, as well as several mitigation measures relevant to DACs. Section 7.12.2, Groundwater, discusses that communities that rely on groundwater for drinking water supply face challenges from declining groundwater levels, with dry wells occurring in some areas during prolonged drought periods, and discusses mitigation measures relevant to DACs for drinking water impacts from

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			lowered groundwater levels that may address some of the supply issues faced by DACs. Section 7.20, Utilities and Service Systems, discusses that DACs that rely solely on groundwater often disproportionately experience impacts on their drinking water supplies, and discusses relevant mitigation measures and that the State Water Board will continue its commitment to the human right to water through financial assistance, technical assistance, consolidations, and other means, including for communities that may be affected by reduced groundwater supplies or groundwater quality concerns. Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, discusses cumulative impacts, including specific impacts relevant to DACs.
256	37	Instead, most of the chapter analyses potential impacts to agricultural revenues. Those estimates are based on 2010 data, which the SED acknowledges does not account for increases in tree nut production but does not adjust to reflect that reality (SED 8-41). Moreover, the chapter references outdated urban water use data from DWR and makes no reference to the Board's current data collection and regulatory processes to achieve additional urban water conservation (SED 8-7). (Notably, these efforts are documented in other places within the SED). The chapter also omits economic analysis for various scenarios. It does not include any of the modified scenarios presented in Chapters 5 and 7 and lumps dry and critically dry years together (SED 8-43). These deficiencies result in an incomplete assessment of potential impacts to the agricultural and urban water sectors.	The analysis of environmental impacts and economic effects on agricultural production is informed by modeling results from SWAP. SWAP is currently the best available tool for modeling agricultural economic response to water supply shortage. It has been peer reviewed and applied to numerous policy analyses and impact assessments over the last two decades. SWAP uses 2010 data from the best publicly available and validated data source. See Common Response 7.4, Agricultural Resources, regarding the SWAP baseline and use of 2010 cropping data. The information presented on page 8-7 of the 2023 draft Staff Report regarding municipal water use only provides background context and was not factored into the impact analysis. Revising the text to reflect the most current efforts is not necessary. Section 7.24, Alternatives Analysis, provides additional information about project Alternatives 1 through 5, including the environmental impacts and economic effects of each of these alternatives. Common Response 7.24, Alternatives Analysis further discusses the Staff Report's approach to alternatives. To provide additional information, supplemental SWAP results for changes in crop acreage for critically dry water years are presented in Common Response 7.4, Agricultural Resources, and the corresponding estimated changes in crop revenue are presented in Common Response 8.1, Economic Analysis and Other Considerations. The 2023 draft Staff Report already

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			identifies potentially significant environmental impacts to agricultural production and adverse agricultural economic effects, and the supplemental SWAP results for critically dry water years presented in Common Responses 7.4 and 8.1 do not change the conclusions of the environmental and economic analyses presented in the Staff Report.
256	38	The biggest deficiency, however, is that lack of analysis for potential benefits. The SED makes no attempt to develop comprehensive quantitative benefits estimates, nor does it apply a racial equity lens to the benefits and costs analyses. The Board has ample evidence to draw upon for a benefits evaluation. It could have utilized well established techniques to quantify existence values and ecosystem services. It could have presented scenarios for the economic benefits from commercial fisheries, recreation, and tourism resulting from a comprehensive plan of implementation. It could have conducted analyses of specific fish passage and temperature control measures. It could have used its tribal consultations to document benefits to tribes. It could have taken an environmental justice lens to estimate benefits to communities in the Delta. It could have analyzed the avoided costs of eliminating or reducing reactive emergency drought response measures. However, the Board did none of those things, and instead presented a series of descriptions and examples with no geographic specificity (except one willingness to pay study) that prevent readers from evaluating the benefits that could accrue from the proposed flow scenarios and other water quality control measures (Section 8.6). Therefore, the SED fails on multiple dimensions. Moreover, this chapter is an affront to tribes and communities who have been and continue to be harmed by excess water diversions, minimizing their suffering. Unless the Board reverses course, the racial equity and climate resolutions are just meaningless words.	Pursuant to the State Water Board's Racial Equity Resolution and Racial Equity Action Plan and Climate Change Resolution, racial equity issues and economic impacts and economic effects relevant to economically disadvantaged communities and tribes are discussed in multiple sections and chapters of the Staff Report, including the chapters and sections identified in response to Comment 256-36. In addition, Chapter 11, Tribal Engagement, Traditional Ecological Knowledge and Tribal Beneficial Uses, addresses current statewide policies and efforts that State Water Board has taken to engage with California Native American Tribes and document Traditional Ecological Knowledge (TEK) to inform the State Water Board's efforts to update the Bay-Delta Plan, including possible incorporation of TBUs into the Bay-Delta Plan. The State Water Board is committed to ongoing engagement with California Native American Tribes to incorporate TEK, tribal feedback, and perspectives into the Bay-Delta Plan to inform the reasonable protection of beneficial uses and TBUs that are under consideration. 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, including subsistence fishing and tribal uses of fish and other topics that may be relevant to economically disadvantaged communities and to tribes. 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.

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256	39	Voluntary Agreements (Chapter 9) Imagine an alternate reality. In this reality, tribes, commercial fishing groups, and environmental and social justice advocates sat in rooms with government officials and worked out some agreements for an 8-year plan. This plan included a 75% unimpaired flow requirement, along with specific temperature management, fish passage, and habitat restoration mandates. It also required that the Board could not consider permits for the proposed Delta Conveyance Project and Sites Reservoir until after the 8 years were up. And imagine that the Board included this plan as a separate chapter in the SED. Now, imagine how the water and irrigation districts, who were deliberately excluded from the negotiations, might react. Political leaders always have a choice. They can support the status quo, or they can contribute to bending the moral arc of the universe towards justice. The Newsom administration is all-in for the status quo and history will not look kindly upon their actions. Regulatory agencies, on the other hand, have areas of discretion but do not have a choice in the same sense. To fulfill their duties and their mission, they must follow the laws that define their mandate and authority. For all the reasons enumerated by the parties that were excluded from the Vas, the Board must reject them. If the Board approves the Vas, they will elicit successful challenges, and be remanded to complete the plan update without them. The Board should avoid this massive waste of time and resources by approving a plan that complies with the law at the outset. Furthermore, if the Board Members care at all about their legacy, they should do the right thing.	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.
256	40	Conclusion Finally, regarding legacy, the Board should be aware of the court cases being filed on behalf of children whose futures are being imperiled by inadequate climate action. Another case was recently filed in California Footnote 30: See https://www.theguardian.com/us-news/2023/dec/11/california-youth-sue-epa-climate-crisis,	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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		accessed December 18, 2023]. The plaintiffs are young people whose lives are already being turned upside down by climate change impacts. They are seeking relief from the courts because the regulatory agencies have failed to fulfill their duties. The Board has a powerful opportunity to reverse course and protect the next generation of BIPOC children who are already impacted disproportionately by climate change impacts. These young people do not need a guaranteed export market for nuts and rice and chronically failing watersheds; what they need is a healthy environment and a just transition to a California that truly works for all. Sit with that. Think about your own children and families. And then decide whose interests you are there to protect.	
256	41	[Attachment 1: Letter from State Water Board dated October 23, 2023 Re: Response to Concerns Regarding Trinity River Water Temperature Issues]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
256	42	[Attachment 2: Email from National Oceanic and Atmospheric Administration to State Water Board dated April 27, 2022 Re: Comments on Reclamation's draft Sac River Temperature Management Plan]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
257	1	The City has two primary sources of water: the Delta and the Putah Creek watershed. License 7848, also known as Vallejo Permit Water, is currently diverted through the North Bay Aqueduct in Barker Slough within the Cache Slough Complex. Licenses 13876 and 13877 are diverted from Lake Berryessa below Monticello dam, within the Putah Creek watershed. License 7848 represents roughly 55%, and Licenses 13876 and 13877 represent roughly 45% of Vallejo's water supply. License 7848 was restricted by 87%, from 31.52 cfs to 4 cfs, in 2021 and 2022 due to the presence of Delta Smelt and was fully curtailed during the drought years based on results from the Water Unavailability Methodology. If the proposed unimpaired flow alternatives (High Flow and Low Flow Alternatives) were to be implemented, and water from the Putah Creek Watershed was restricted, Vallejo faces scenarios in which only 12% of its total	The SacWAM hydrologic model described in Chapter 6, Changes in Hydrology and Water Supply, provides estimates of monthly quantities of Sacramento/Delta water delivered for agricultural, municipal, and refuge uses for the entire period of simulated hydrology. Municipal suppliers in some regions rely on Sacramento/Delta supplies more heavily than others, leaving them more vulnerable to reductions in that supply. The impacts on municipal suppliers can vary substantially across regions. Regions most reliant on the Sacramento/Delta supply are the Sacramento River watershed (58 percent of municipal supply relies on Sacramento/Delta supplies), Delta eastside tributaries (52 percent), and Bay Area (62 percent). As a whole, Sacramento/Delta water supply to municipal uses decreases with increasing flow requirements. Municipal water supplies are further analyzed in Section 7.20,

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		water supply remains available during dry or critical years, with no ability to obtain diversions out of storage.	Utilities and Service Systems. The impact analysis provides a regional-level assessment of how a reduction in Sacramento/Delta water supplies could affect municipal deliveries, whether additional water supplies may be needed, and whether impacts could be avoided by relying on existing supplies from other sources or more intensive use of demand management measures. The analysis concludes that, although some communities appear to have reserve supply from other sources that could replace Sacramento/Delta supply reductions, other communities do not have enough reserve supplies. Effects during extended dry years or drought conditions are considered qualitatively and could exacerbate municipal shortages for some of the municipal uses. SacWAM results show that, under the 55 scenario, the proposed Plan amendments could result in a 15 percent reduction in the average municipal supply to the Bay Area region (Table 7.20-8). Larger reductions in the Mokelumne Aqueduct and Putah South Canal are related to the larger increases in instream flow required on Putah Creek and the Mokelumne River to meet the new proposed flow requirements. Water service reliability data from 2020 UWMPs provide information about current and projected future supplies and water demand of wholesale and municipal water suppliers. Based on expected water service reliability for 5 consecutive dry years projections for 2030, most municipalities in the study area indicate adequate supply to meet demand even during multiple dry years. Table 7.20-16 shows San Francisco Bay Area Region Water Service Reliability Assessment for Municipal Suppliers That Rely on Sacramento/Delta Supply as a Part of Water Portfolio (acre-feet per year), including the City of Vallejo with an estimated surplus of 1,055 AF. However, the 2020 UWMP data suggests that some municipalities in the Bay Area region may not have adequate supply to meet demand in 2030 during multiple dry years (Table 7.20-15). These municipalities likely would need to obtain new water supplies to prevent dry year shortages. The Staff Report presents a worst-case scenario for supply reductions to ensure that impacts are adequately disclosed. Plan provisions for adaptive implementation of the numeric inflow requirements are provided to optimize flows to benefit native

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			fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat and inflow-based Delta outflow requirements. 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 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 tributary-specific water supply adjustments would allow for additional adjustments on rainfall-dominated and municipal supply-dominated tributaries, including Putah Creek and the Mokelumne and Calaveras Rivers, that would allow for more frequent reductions in the required flow levels within this range, as well as no new flow requirements during the driest conditions. As described in Section 13.4.2.1, Sacramento Water Allocation Model (SacWAM) General Updates, of the 2025 partially recirculated draft Staff Report, modeling of Lake Berryessa reservoir operations were also modified and resulted in changes to the modeled storage levels under the flow scenarios. See Section 13.7.20, Utilities and Service Systems, for the analysis of impacts of the regulatory pathway of the revised proposed Plan amendments on municipal water supplies.
257	2	The Draft Staff Report includes economic analyses for the unimpaired flow alternatives (Chapter 8). The range of estimated costs for municipalities to replace reduced supply for the 55% flow scenario for mitigating reductions in water supply start at \$32 million by region for the San Francisco Bay Area (where Vallejo is located, in contrast to the rest of Solano County, which is further north). The Vallejo drinking water utility receives no tax revenue from the City of Vallejo; all new costs must be covered by rates. The cost to replace reduced supply would burden ratepayers with additional operating costs as stated in Chapter 8 "Municipal water providers will factor into their rates the additional costs associated with providing delivered water." (Page 8-95). It is clear from this statement, the Board's planned action would create a situation in which poorly-resourced	Municipal water supply economic effects were adequately disclosed in Staff Report Chapter 8, Economic Analysis and Other Considerations, including in Section 8.5, Municipal Water Supply Economic Effects. Chapter 8, Economic Analysis and Other Considerations, also summarizes potential sources of funding for municipal water supply and conservation. Please see Common Response 8.1, Economic Analysis and Other Considerations, for additional and updated information on potential sources of funding for municipal conservation and alternate water supplies. In addition, Chapter 10, Economically Disadvantaged Communities, provides an overview of DACs and their water supplies and incorporates information from several other sections and chapters to summarize potential effects of the

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		communities, particularly those with a large number of fixed-income households, such as Vallejo, creating an inequitable scenario where those who can afford to mitigate the problems imposed by the State are further separated from those who cannot.	Sacramento/Delta update to the Bay-Delta Plan on DACs. Chapter 10, Economically Disadvantaged Communities, provides regulatory background and also describes various financial and technical assistance programs available to assist public water systems serving DACs. 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. Also see Common Response 8.1, Economic Analysis and Other Considerations, for a discussion on municipal water rates. 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 pathway 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.
257	3	Although the Water Department does not specialize in economic analyses, it does specialize in water resources management, water supply, treatment, and delivery, and the design and implementation of capital projects and maintenance efforts needed to maintain aging infrastructure. It is clear all unimpaired flow alternatives proposed by the state would result in a significant monetary impact on Vallejo's already disadvantaged community, as those alternatives will result in expensive capital projects to mitigate the effects of a reduced water supply and significant increases in operational costs (such as chemical purchases for water treatment). The additional cost of the unimpaired flow alternatives mentioned in Chapter 8 appear low, as the City has an estimate in hand to repair an existing dam for a 10,000-acre-foot reservoir at \$50 million. For reference, the Water Department's annual revenues that fund its capital program are roughly \$10 million and the overall operating budget is only \$50 million. The analysis in Chapter 8	The Staff Report uses a reasonable and conservative approach to estimating potential municipal water supply economic effects. Please see response to Comment 257-2 regarding municipal water rates and potential funding sources for municipal water conservation and alternative supplies. When interpreting cost estimates in Chapter 8, Economic Analysis and Other Considerations, it is important to note that the range in Table 8.5-1 reflects annual costs, which include the amortized capital cost plus operating costs. This approach is appropriate to provide a comparison among alternative sources of supply with different investment costs, expected life, and operating cost. For example, the \$50 million for dam repair might cost \$2.7 million per year if financed for 50 years at a 5 percent loan rate.

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		also did not appear to include the increases in operational costs that would be required with the unimpaired flow alternatives, only the capital expense of finding a new water supply. Treatment of non-Berryessa source water is more costly. Although several funding assistance programs are discussed in Chapter 8, the avenue by which that funding assistance is obtained also requires financial resources and expertise to navigate, as well as significant staff time and effort to manage and provide reporting.	
257	4	Chapter 10, Economically Disadvantaged Communities of the Draft Staff Report is inadequate in addressing the significant potential impacts on disadvantaged communities and providing concrete and realistic steps for those communities to obtain assistance. It is not enough to simply name the program, there must be focused and intentional outreach programs to these communities in order to assist them. According to the group End Poverty in California (EPIC), almost 30% of Californians were classified as "poor" or "nearly poor", and approximately 12% were classified as living in "poverty". The challenge for them is not only a lack of water supply and their inability to pay for alternative supplies, but also the costs of water treatment and delivery. The ability for communities to pay for water will be significantly and negatively impacted by the proposed unimpaired flow alternatives.	The Staff Report adequately evaluates the impacts of reduced Sacramento/Delta water supply for municipal and agricultural use, including impacts related to surface water supply reductions and economically disadvantaged communities (DACs). Please see Staff Report Section 10.5, Assistance Programs, for a discussion of financial and technical assistance programs available to assist public water systems serving DACs. 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, and other means. Please refer to Common Response 8.1, Economic Analysis and Other Considerations, for responses to comments on municipal water rates and potential sources of funding for municipal conservation and alternative water supplies.
257	5	The Draft Staff Report includes the Public Outreach efforts that were made (Chapter 12), however it does not appear that specific outreach efforts were made to connect with the underserved communities of California and the specific needs they have relative to drastic potential reductions in available drinking water. Although the public workshops were held online, and recordings are provided, it is unclear whether underserved communities were able to participate, given their more limited staffing, consulting, and lobbying resources. It is also unclear whether the information was provided to those communities in ways that would invite them to provide meaningful input from their unique perspectives. What is clear is the workshops were held at times when many people are not available to participate (during typical business hours of the day when rate payers	The State Water Board has conducted extensive outreach and has received significant input from DACs, environmental justice organizations, environmental non-governmental organizations, and others related to the Sacramento/Delta Update to the Bay-Delta Plan. This includes environmental justice focused listening sessions and other opportunities as described in Chapter 12, Public Participation, in the Staff Report. Please refer to Common Response 1.1, General Comments, for additional information and responses regarding the adequacy of the public process related to the Sacramento/Delta update to the Bay-Delta Plan.

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		would be at work) and held utilizing a method (via teleconferencing) that may not be available to everyone. Given the State's commitment to equity and inclusion, it would be hoped that efforts to support equity in California would not just provide the opportunity for someone to sit at the table where they could engage, it would provide them an environment by which they would engage. While CEQA provides requirements for public participation, there are no formal requirements by which public participation is evaluated through the lens of environmental justice. It would appear the well-intentioned efforts that were made to engage with the public were limited to those members of the public that were either available or could afford to send someone on their behalf, thus inadvertently perpetuating inequity and unequal access to critical changes that will impact water rates and drinking water access, missing the mark relative to the goal of robust public engagement.	
257	6	Upon review of the alternatives and accompanying analyses in the Draft Staff Report, it would appear all alternatives except the No Project Alternative would negatively impact the water supplies and treatability of Vallejo's sources of water. The impacts outlined in the Draft Staff Report can be summarized in the following way: there will be reduced supply availability, reduced water quality, and increased habitat mitigation impacts. All these impacts would increase the difficulty to obtain and treat water, thereby increasing costs to the rate payers of Vallejo, and other users of Berryessa water, in various ways. Other than the No Project Alternative, the Voluntary Agreements Alternative would have the least impact on the City of Vallejo and its rate payers. For this reason, the Water Department urges the Board to consider the Voluntary Agreement Alternative instead of the Low Flow or High Flow alternatives, provided there is a methodology by which underrepresented communities, and water agencies that serve underrepresented communities, can be fully engaged and represented in that process. The Voluntary Agreement Alternative approach would allow the Board to capitalize on local expertise and engage with stakeholders on the ground in implementing watershed-specific solutions to addressing the challenges of declining fisheries.	The Staff Report acknowledges that the flow scenarios could affect municipal water supplies and could result in environmental impacts. Section 7.20, Utilities and Service Systems, evaluates whether changes in water supply could affect municipal supply in a manner that would cause water suppliers to need new or expanded water entitlements and concludes that some municipal water suppliers could experience impacts with reductions in Sacramento/Delta supply. Section 7.20 also concludes that changes in hydrology and water supply could result in construction to modify or expand existing treatment facilities in order to prevent or mitigate exceedances of drinking water standards and wastewater discharge water quality objectives. Please refer to the response to comment 257-2 regarding municipal water rates and additional discussion of municipal water supply economic effects.
259	1	The Description of Alternatives is Deficient.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding use of the Staff Report to meet CEQA

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		The County is working with other local agencies to fully understand the potential impacts of the proposals described in the Bay Delta Plan Staff Report on matters of significant County interest, including the agricultural economy, agricultural and municipal water supply reliability, and habitat conservation efforts. A fundamental challenge in our review is the dearth of information in the Staff Report regarding the substance of the Plan amendments for each of the alternatives [Footnote 1: Some examples of informational deficiencies are noted in a January 18, 2024 letter submitted separately by Solano County, including the discussion relating to habitat restoration at pp. 2-3 of that letter]. Each alternative is effectively conceptual, and the Executive Summary makes this clear by characterizing the alternatives as “possible changes” to the Bay-Delta Plan that “will be developed based on public comments on this draft Staff Report and other information” for public review “in early to mid- 2024.” (Executive Summary at p. 1-2.) This approach would be reasonable if the update effort were in its earliest stages and the Board wanted to provide the public with a preliminary opportunity to comment on conceptual approaches. But it is not a reasonable—or legally appropriate—approach to presenting a proposed action and alternatives in a document that is offered as the equivalent of a draft Environmental Impact Report (“EIR”) that the public has only a single opportunity to comment on. Even though the Board is not required to prepare an EIR, the informative content of the Staff Report must still include an accurate, complete project description (among other requirements). <i>Pesticide Action Network v. California Department of Pesticide Regulation</i>, 16 Cal. App. 5th 224, 247 (2017); CEQA Guidelines sections 15250, 15252. For this reason alone, the Staff Report fails to comply with applicable legal requirements, including the California Environmental Quality Act (“CEQA”) and its implementing regulations. The County encourages the Board to recognize this reality and accept that the Staff Report must be updated and recirculated for public comment once the substance of the Plan amendments necessary to implement various alternatives under consideration is available and integrated into the environmental	requirements, and adequacy of the project description. Also see Common Response 7.24, Alternatives Analysis, regarding the consideration of alternatives. See Chapter 12, Public Participation, regarding opportunities that were provided to the public to participate in the development of the 2023 draft Staff Report. See Common Response 1.1, General Comments, regarding the public process. To the extent that this comment summarizes or introduces other comments, please see the substantive responses to those comments. Please see the responses to comments 259-2 through 259-35 regarding the other issues raised by the commenter.

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		analysis. Pesticide Action Network, 16 Cal. App. 5th at 251 (recirculation required because original document was fundamentally inadequate). Such an approach would be faithful to the Board's stated intent of developing draft changes to the Plan based on feedback on the Staff Report while also addressing the legal and practical challenges to meaningful public participation that are a consequence of the dearth of information mentioned above (as well as other deficiencies noted in the County's comments).	
259	2	The Baselines for Analysis are Inadequately Described. The baseline for environmental analysis of unimpaired flow alternatives (Alternatives 2-5) is difficult to understand, does not comply with the requirements of CEQA, and should be revised, updated, and clarified. The baseline for Alternatives 2-5 appears to be 2012, a different baseline than Voluntary Agreements (Alternative 6). However, separate sections include references to the 2019 Biological Opinion and 2020 Incidental Take Permit, each of which includes the Yolo Bypass Salmonid Habitat Restoration Project as a baseline. Yolo County requests clarification of the baseline for environmental analysis for Alternatives 2-5 and additional discussion of how it relates to the projects mentioned herein. Absent such clarification, it is very challenging for the County (and members of the public generally) to understand and provide feedback on the discussion of impacts within the Yolo Bypass in various other sections of the staff report. This is just one example of how the Staff Report's description of the baseline is deficient and precludes informed public comment.	Please refer to Common Response 6.2, Baseline and No Project Alternative, for response to comments about the project baseline. The Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project is not included in the project baseline or the alternatives. However, the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project is a type of habitat restoration project that is evaluated in Section 7.21, Habitat Restoration and Other Ecosystem Projects, and is also described in Section 7.23.1.2, Cumulative Project List.
259	3	The County has similar concerns with the baseline for the Voluntary Agreements (Alternative 6). The baseline is stated as December 2018 and the various alternatives are apparently intended to be additive to the requirements of the 2019 Biological Opinion. However, the baseline does not appear to include the California Department of Water Resources' Yolo Bypass Salmonid Habitat Restoration Project (Big Notch), which will result in the inundation of approximately 20,000 acres in the Yolo Bypass for fish habitat. Please clarify whether the Big Notch project is included as part of the baseline for the analysis of Alternative.	The analyses in the draft Staff Report for all alternatives all rely on the same baseline which is described in Section 6.2.1, Baseline Assumptions, of Chapter 6, Changes in Hydrology and Water Supply. In addition, please refer to the response to comment 259-2 about how the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project is incorporated into the draft Staff Report.

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		As the Board considers each baseline in connection with its review of comments, the County recommends that the Board consider updating the baselines to the greatest feasible extent and establishing a single baseline for the analysis of all alternatives. Reliance on a 2012 baseline for the unimpaired flow alternatives is legally questionable (at best) and, particularly given the ambiguities noted above, the outdated baseline detracts from meaningful public comment on the Staff Report and alternatives. If it is not feasible to establish a single, updated baseline across all alternatives, the baselines each need to be revised for clarity and should describe precisely what is included and what is not with respect to the 2019 Biological Opinion and the 2020 Incidental Take Permit (as well as other significant regulatory, permitting, and related constraints on water resource management in the project area).	
259	4	C. Comments on the Unimpaired Flow Alternatives. Based on its review to date, the County is concerned about the potential impacts of the various unimpaired flow alternatives on existing land uses and water supply availability and currently understands the recommended unimpaired flows could greatly impact the production of agricultural commodities. The production of rice, for example, could potentially decline by up to 50% regionally (up to 250,000 acres), which would greatly impact to the County's economy as well as terrestrial species (including migratory waterfowl) that are highly dependent on rice fields as foraging habitat. [Footnote 2: The acreage estimate is derived from the analysis in "Continued Drought in 2022 Ravages California's Sacramento Valley Economy," D. Sumner and W. Matthews (U.C. Davis, May 11, 2022).] This analysis is fundamental to an informed policy decision by the Board on the Plan amendments and, for this reason and to satisfy CEQA, must be included in the Staff Report.	The Staff Report acknowledges that the proposed Sacramento/Delta flow requirements could have potentially significant impacts on agriculture and irrigated acreage, including rice, as discussed in Section 7.4, Agriculture and Forest Resources, and corresponding Section 13.7.4, Agriculture and Forest Resources. Section 7.4 evaluates changes in rice acreage under different flow scenarios and water year types for both average and dry years. Common Response 7.4, Agricultural Resources, provides additional results for critically dry years. The Sumner and Matthews (2022) analysis cited by the commenter used different input data, assumptions and baseline conditions than those used in the Staff Report. Additionally, rice is an annual crop, and water users adjust planting decisions each year based on available water supplies. Therefore, a 50 percent reduction during an extended drought sequence should not be conflated with annual outcomes under the proposed flow scenarios. For details on how water supply was modeled in SWAP and SWAP estimated reduction in rice production, please see Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results. For detailed discussion on the potential agricultural economic effects under the flow

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			scenarios, please see Section 8.4 and Section 13.8.1, Agricultural Water Supply Economic Effects. Finally, for analysis and mitigation measures addressing potential impacts on migratory waterfowl from reduced post-harvest flooding of rice fields, please see Staff Report Impact TER-d in Section 7.6.1, Terrestrial Biological Resources, and Section 13.7.6.1, Terrestrial Biological Resources.
259	5	Additionally, Yolo County is concerned that the analysis of impacts did not consider the cumulative impacts of proposals described in the Staff Report and other water resource projects occurring in this region, including but not limited to future operations of Sites Reservoir, Sacramento Weir Widening, upper Yolo Bypass Levee Widening, or the Yolo Bypass Salmonid Habitat Restoration Project. Any of the Plan amendment alternatives under consideration could compound the impacts of these projects, including by directing additional water into the Yolo Bypass and causing additional inundation as well as impeding drainage.	Sites Reservoir is 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 Sites Reservoir and other past, present, and reasonably foreseeable probable future projects.
259	6	Relatedly, the County understands the U.S. Army Corps of Engineers recently contracted with the State to perform a Comprehensive Study of the entire Sacramento River Flood Control System. This study will evaluate the system and develop recommended alternatives for increasing flood conveyance capacity. Yolo County is concerned the proposed unimpaired flow alternatives (Alternative 2-5) have not considered how implementation of the approaches described in the Staff Report will align with implementation of any other projects (such as those mentioned above) in its impact analysis or modeling in alternative development.	Sites Reservoir is 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 Sites Reservoir and other water supply projects. Section 7.24, Alternatives Analysis, of the 2023 draft Staff Report addresses project alternatives. Please refer to Common Response 7.24, Alternatives Analysis, regarding the analysis of alternatives. Refer to Appendix A1 for the assumptions of alternative scenarios.
259	7	Comments on the Proposed Voluntary Agreements. Yolo County is currently not a signatory to the Voluntary Agreements MOU and is seeking additional information from the proponents of the Voluntary Agreements (including the signatories and other local and state agencies) to understand the potential impacts within Yolo County [Footnote 2: The acreage estimate is derived from the analysis in "Continued Drought in	The Staff Report adequately addresses impacts of habitat restoration, including flows and non-flow projects in the Yolo Bypass. Section 7.21, Habitat Restoration and Other Ecosystem Projects, evaluates the potential environmental impacts of physical habitat restoration and other complementary ecosystem projects that entities may undertake toward achieving the overall goal of improving conditions for fish and wildlife in the Sacramento/Delta. This section covers the types of projects

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		2022 Ravages California's Sacramento Valley Economy," D. Sumner and W. Matthews (U.C. Davis, May 11, 2022]. The acreage estimate is derived from the analysis in "Continued Drought in 2022 Ravages California's Sacramento Valley Economy," D. Sumner and W. Matthews (U.C. Davis, May 11, 2022). Specifically, Yolo County is concerned about the potential impact on existing land uses of the proposal to convert 20,000 additional acres to floodplain habitat (Ch. 9, section 3.3.1), more than 4,000 of which could be in Yolo County based on information that is readily available but largely ignored in the staff report [Footnote 3:potential projects to be implemented in furtherance of the Voluntary Agreements. Such materials include a Draft Strategic Plan that specifically says at p. 58 that "[n]ew floodplain habitat enhancement areas totaling at least 20,000 acres will be developed in the Sutter and Yolo Bypasses, Butte Sink and the Colusa Basin." Yet Chapter 9 of the Staff Report does not mention the potential for floodplain habitat development in Yolo County or discuss the potential environmental impacts of such efforts (including cumulative effects). https://resources.ca.gov/Initiatives/Voluntary-Agreements-Page/Draft-Strategic-Plan-and-Other-Program-Materials.]. The County understands the Voluntary Agreements Alternative does not specify the exact location of this habitat restoration, but there is an existing list of project proposals still under development (presumably, this is the same list that is appended to the Draft Strategic Plan mentioned in footnote 3). Yolo County is therefore concerned the proposed habitat restoration will impact wildlife-friendly agriculture, managed wetlands important for migrating waterfowl along the Pacific Flyway (including in the Yolo Bypass Wildlife Area), and impact other terrestrial species habitat important for implementation of the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP). For these reasons, the County requests that the Staff Report include information that is currently available (see footnote 3) regarding actions that could be implemented to provide the 20,000 acres of additional habitat restoration included in the Voluntary Agreements Alternative, including actions proposed	contemplated for VA habitat commitments, including the physical restoration of tidal, floodplain, and riparian habitats to increase hydrologic connectivity and habitat complexity. The analysis in Section 7.21 uses methods and criteria consistent with the State Water Board's environmental checklist (Cal. Code Regs, tit. 23, div. 3, ch. 27 §§ 3720-3781, Appendix A) and other State Water Board CEQA requirements, as described in Section 7.1, Introduction, Project Description, and Approach to Environmental Analysis. The impact analyses are necessarily broad to cover the wide range of foreseeable compliance measures, responses, and associated efforts that may result from the proposed Plan amendments. The Staff Report provides extensive analysis that the VA parties may be able to rely on where appropriate when complying with CEQA for their habitat restoration projects. Additional project-specific analysis may be necessary when moving forward with individual projects. The list of habitat restoration projects referred to by the commenters is a list of projects that could potentially be proposed for VA habitat credit. Approval of the proposed Plan amendments would not approve any of these specific projects. At this time, it would be speculative to assume that any specific project or set of projects from that list will be implemented, and it would require further speculation to analyze the impacts of any specific projects. The analysis in Section 7.21 determines that habitat restoration projects could conflict with existing land use plans, policies, or regulations and determines that this impact is potentially significant, even with mitigation. Physical habitat restoration mitigation measures include project siting and design to avoid or minimize impacts on agricultural lands (MM-AG-a-e). Habitat restoration efforts should focus on restoring existing habitat or developing new habitat on public lands before converting agricultural land. If public lands are not available for restoration efforts, restoration efforts should focus on acquiring lands that can meet ecosystem restoration goals from willing sellers where at least part of the reason to sell is an economic hardship (for example, land that floods frequently or where levees are too expensive to maintain). Other mitigation measures include agricultural land easements, compatible agricultural practices and consistency with local and regional Land Use Plans. Chapter 13, Revised Proposed Plan

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		for the Yolo Bypass. The County believes the Board is obligated to ensure the Staff Report includes specific descriptions of projects that have already been identified in connection with the 20,000-acre goal, as well as a robust evaluation of impacts to the extent practicable (even if additional, project-specific analyses will occur later). As the Voluntary Agreement project list is refined over time while your process continues, to the extent such updates result in significant new information (Pub. Resources Code section 21092.1), Yolo County requests a reevaluation of the potential for new or substantially greater impacts on wildlife-friendly agriculture, the Yolo Bypass Wildlife Area, wetlands important to migrating waterfowl on the Pacific Flyway, and conservation activities essential to implementation of the Yolo HCP/NCCP and its protection of habitats for the Giant garter snake, Swainson's hawk, and other covered species.	Amendments, finds that this conclusion remains applicable to the proposed Plan Amendments as revised. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on the VA habitat commitments. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion about the scope of the analysis presented in the 2023 draft Staff Report.
259	8	[ATT 1:]. Ch.1: Executive Summary. [Page:] 1-2. Paragraph 3.1. [Comment: Importance (H, M, L):]. L. [Issue:] Narrative and numeric inflows from the Sacramento River requiring 55% unimpaired flow to support salmonids and other native species, with an adaptive range from 45% to 65% is a large margin that requires analysis of impacts before adaptive management is implemented. [Proposed Solution:] The proposed narrative and numeric unimpaired flow adaptive management ranges need to be studied and evaluated for the impacts on agriculture under every scenario.	The analysis of impacts on agriculture under the flow scenarios is presented in Section 7.4, Agriculture and Forest Resources, of the 2023 draft Staff Report, as suggested by the commenter.
259	9	[ATT 1:]. Executive Summary. [Page:] 1-3. Paragraph 2. [Comment: Importance (H, M, L):]. M. [Issue:] The MOU referenced as "the State Water Board received a Memorandum of Understanding Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions" otherwise included as a term sheet is not stated as an included attachment. [Proposed Solution:] Include the MOU referenced as the "VA Termsheet" in the appendices.	The VA MOU and term sheet were included in Appendix G1, Voluntary Agreement Proposal, of the 2023 draft Staff Report.
259	10	[ATT 1:]. Executive Summary. [Page:] 1-16. Paragraph 2. [Comment: Importance (H, M, L):]. L. [Issue:] The Executive Summary states "Most notably, updates to the Biological Opinions for the long-term operation of the CVP and SWP and Incidental Take Permit for the SWP have changed since 2012. Many of the changes are not significant or are uncertain due to	The analyses in the draft Staff Report for all alternatives all rely on the same baseline which is described in Section 6.2.1, Baseline Assumptions, of Chapter 6, Changes in Hydrology and Water Supply. In addition please refer to Common Response 6.2, Baseline and No Project Alternative, for a response to comments about the project baseline.

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		litigation and reconsultation, but other changes are expected to continue." The Executive Summary does not specify what changes are expected to continue. [Proposed Solution:] The Executive Summary should provide a brief description of changes expected to continue and point the reader to the appropriate place in the chapter(s) where the reader can find more information about assumptions related to the BiOps and the baseline. Without at least this information, the vague and general reference to post-2012 updates to the Biological Opinions and the Incidental Take Permit renders it all but impossible to understand exactly how components of those authorities are integrated into the staff report, including how they relate to the baselines used for analyzing effects of the various alternatives.	
259	11	[ATT 1:]. Executive Summary. [Page:] 1-17. Paragraph 5. [Comment: Importance (H, M, L):]. L. [Issue:] The Executive Summary describes Alternative 4a (Exclusion of Interior Delta Flow and Fall Delta Outflow Related Amendments), stating it excludes interior Delta flow and fall Delta outflow provisions included in the BiOPs, but does not say why this alternative was created. [Proposed Solution:] Briefly describe why the SWRCB created Alternative 4a, in particular the exclusions.	Refer to Staff Report Section 7.24, Alternatives Analysis, for a description of the alternatives, including Alternative 4a.
259	12	[ATT 1:]. Executive Summary. [Page:] 1-23. Impact-TER-a. [Comment: Importance (H, M, L):]. M. [Issue:] The Executive Summary describes potentially significant impacts to wildlife refuges and agricultural lands but does not include privately owned managed wetlands or federally protected wetlands. [Proposed Solution:] Include all managed and protected wetlands in the impact analysis.	See Chapter 7, Environmental Analysis, Chapter 9, Proposed Voluntary Agreements, and Chapter 13, Revised Proposed Plan Amendments, of the Staff Report for analyses of potential impacts to managed wetlands and federally protected wetlands as defined by Section 404 of the Clean Water Act.
259	13	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-1. Paragraph 3. [Comment: Importance (H, M, L):]. H. [Issue:] The draft staff report does not discuss impacts of the alternatives on agricultural crop yields and whether impacts of this nature--though primarily economic--have the potential to result in environmental impacts through, by way of example, a reduction in agriculture or shift in crop patterns. For instance, in Yolo County, more frequent inundation of the Yolo Bypass (either Fremont Weir overtopping or operations of the Big Notch Project) could result in conversion of farmland to other uses or	The Staff Report adequately evaluates the agricultural impacts and agricultural economic effects of changes in water supply on crop production and crop revenue. Given the inherent uncertainties involved in modeling agricultural impacts and agricultural economic effects, the Staff Report uses a reasonable and conservative approach to evaluating the potential agricultural impacts and agricultural economic effects of the flow scenarios. SWAP is currently the best available tool for modeling agricultural economic responses to water supply shortages. It has been peer-reviewed and applied to numerous policy analyses and impact assessments over the last two decades.

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		fallowing as it becomes less profitable to farm, resulting in increases in invasive plants, a decline in terrestrial species habitat, and a decline in flood conveyance capacity due to increased (unmanaged) vegetation. The staff report explicitly ignores these potential consequences of economic effects on agriculture, stating that "the focus is on conversion, which means the permanent change in land use from an agricultural use to a non-agricultural use. The proposed Plan amendments could result in conversion of farmland as a result of reduced Sacramento/Delta water supplies and lowered groundwater levels, which could affect flexibility for water districts that rely on conjunctive use to manage their supplies." This analytical approach presents an incomplete picture of potential environmental impacts. [Proposed Solution:] The analysis should be augmented to include information to address the deficiencies noted in this comment. For the Yolo Bypass, the draft staff report cites the study completed in coordination with agricultural economists at UC Davis in 2013 (Howitt et al Agricultural and Economic Impacts of Yolo Bypass Fish Habitat Proposals), which demonstrates the impact of more frequent inundation in the Yolo Bypass on crop yields, but it does not use this model for the analysis to calculate the economic impacts to agriculture. The Board should update the analysis to estimate the expected losses of agricultural revenue, total Yolo County revenue, tax revenue and jobs for different inundation scenarios (similar to the 2013 study) to demonstrate the true impact to agriculture and evaluate the potential for farmland fallowing or conversions with potential environmental effects. The Board also should cite the Bureau of Reclamation's tipping point analysis, which studied the point at which losing rice in the Bypass would affect other important ag-related industries in the region. The tipping point analysis: U.S Bureau of Reclamation, Salmonid Habitat Restoration Project Final EIS/EIR 2019, "Appendix K2. Yolo Bypass Rice and Tomato Tipping Points: Milling and Processing, Crop Insurance, and Loan Rates" (P. KI-43). Available at: https://www.usbr.gov/mp/nepa/includes	SWAP is frequently used to estimate changes in California agricultural production due to changes in water resource availability. Please see Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results, for additional information on the SWAP model. Section 7.4, Agriculture and Forest Resources, evaluates the effects of changes in hydrology on agricultural lands in the Sutter and Yolo Bypasses. Section 7.4 appropriately discloses that the flow scenarios could result in increased inundation of the Sutter and Yolo Bypasses during the planting season, prompting some farmers in the area to convert land to nonagricultural uses. Although affected acreage would likely be small, the Staff Report identifies that this impact could be potentially significant. Therefore, agricultural economic effects to the Yolo Bypass would also likely be small. Examining the impacts to a specific location within one county, using a separate model for area that was not designed for this purpose, is not appropriate given the geographic scope of the project. Please see the response to comment 259-16 regarding applicability of the Howitt et al. (2013) model cited by the commenters. The environmental impacts of physical habitat restoration and other complementary ecosystem projects are evaluated in Sections 7.21, Habitat Restoration and Other Ecosystem Projects, and the costs associated with habitat restoration and other ecosystem projects are discussed in Section 8.7, Costs Associated with Habitat Restoration and Other Ecosystem Projects, of the 2023 draft Staff Report (Section 8.8 Costs Associated with Habitat Restoration and Other Ecosystem Projects, in the final Staff Report). In addition, Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes, describes the cumulative impacts associated with the flow scenarios together with other projects (and programs) that could cause related impacts. The Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project, or Big Notch Project, is evaluated in the Staff Report's cumulative impact analysis and the information provided by the commenter does not necessitate changes to the Staff Report's consideration

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			of the Big Notch Project. Section 7.6.1, Terrestrial Biological Resources, adequately evaluates terrestrial biological impacts that may result from changes in hydrology or changes in water supply. As discussed in Section 7.6.1, increases in the frequency and duration of floodplain inundation in the Sutter and Yolo Bypasses and other floodplains in the Sacramento/Delta would generally improve habitat for wintering waterfowl and may benefit some other wildlife species that occur in floodplains. However, Section 7.6.1 discloses that if some crops are no longer planted in portions of the Yolo Bypass due to extended periods of flooding, such as suggested in Section 7.4, Agriculture and Forest Resources, this could result in a reduction in agricultural habitat for special-status wildlife species, which could be a potentially significant impact. The information provided by the commenter does not necessitate changes to the analysis of terrestrial biological impacts. The commenter references a U.S. Bureau of Reclamation study that identifies that if crop acreage for processing tomatoes or rice is reduced substantially, there may be a point where it is no longer feasible to keep rice milling and tomato processing plants in operation (Reclamation 2019). However, based on the analysis presented in Section 8.4.2.4, Effects on Farming-Dependent Industries, these effects would be expected to be limited under the flow scenarios.
259	14	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-1. Paragraph 3. [Comment: Importance (H, M, L):]. H. [Issue:] The draft staff report does not fully describe the "changes in hydrology" or "changes in water supply" which may occur in each County. For example, Chapter 6 (Changed in Hydrology and Water Supply) includes a short paragraph on the expected inundation in the Yolo Bypass as follows: "Increases in streamflow on the mainstem Sacramento River result in very small changes in the frequency and magnitude of spills into the Sutter and Yolo Bypasses. The Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project (Big Notch Project) is expected to increase the frequency and magnitude of spills into the Yolo Bypass from	Please see the response to comment 259-13. The commenter suggests text revisions that would not alter the Staff Report's analysis or conclusions. The suggested revisions to the 2023 draft Staff Report are not warranted. The Staff Report discloses that changes in hydrology could result in potentially significant impacts on agriculture in the Yolo Bypass. Section 7.4, Agriculture and Forest Resources, evaluates the effects of changes in hydrology, including changes in flows from Cache Creek and Putah Creek, on irrigated agriculture in the Yolo Bypass. The Big Notch Project and similar restoration projects are evaluated in Section 7.21, Habitat Restoration and Other Ecosystem Projects, and the cumulative analysis presented in Section 7.23, Cumulative Impact Analysis, Growth-Inducing

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		the Sacramento River, but the Big Notch Project is not included in the SacWAM modeling. However, increases in outflows from Cache and Putah Creeks produce substantial increases in flow in the lower half of the Yolo Bypass into the Delta (Figure 6.3-18). Increased flows on the lower Yolo Bypass may lead to increases in surface area inundation and floodplain habitat.” (P. 6-25) Since Yolo County is home to one of the most productive agricultural regions in the nation and the Big Notch Project, which will allow the State to inundate the Yolo Bypass for fish habitat, the analysis should include potential operation of the Big Notch Project (and other proposed State and federal projects) that could affect the Yolo Bypass. This analysis is essential to the County's understanding of the impact of the proposed Plan amendments on existing uses in the Yolo Bypass, including the State-owned Yolo Bypass Wildlife Area, the implementation of the State-approved Yolo Habitat Conservation Plan/Natural Community Conservation Plan, and other uses. The analysis should include a scenario to analyze the combined impact of the Big Notch Project and the increased flows from Cache Creek and Putah Creek. [Proposed Solution:] The Board should include a description of the actions proposed by the proposed Bay-Delta Plan amendments by County on the first page of 7.4: Agriculture and Forest Resources, especially a more detailed description (and associated analysis) of potential impacts from the combined Big Notch Project and increased Putah Creek and Cache Creek flows. If the Board expects the Yolo Bypass will not flood more frequently, the Board should also state this information.	Impacts, and Significant Irreversible Environmental Changes. In addition, the project has been revised as described in Staff Report Chapter 13 and Common Response 1.3, Revised Proposed Plan Amendments. As discussed in Chapter 13 and Common Response 1.3, the regulatory pathway 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.
259	15	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-18. Paragraph 1. [Comment: Importance (H, M, L):]. L. [Issue:] The draft staff report states "All land within the [Yolo] bypass is restricted by easements, which are held by the Reclamation Board. This is not technically correct, since flood control easements on property in the Yolo Bypass are held by the Reclamation Board but there are other easements for waterfowl habitat and wetlands which are held by the U.S. Fish and Wildlife Service and other entities. [Proposed Solution:] The Board should update the draft staff report to describe the types of easements on property in the Yolo Bypass accurately, including the waterfowl habitat/wetlands easements. This is a significant issue, as the alternatives each	The 2023 draft Staff Report Section 7.6.1, Terrestrial Biological Resources, evaluates potential impacts on waterfowl and wetland habitats. The impact analysis states that increased frequency and duration of floodplain inundation in the Yolo Bypass would generally improve habitat for wintering waterfowl and that these changes would not adversely affect wetlands because the areas are already subject to seasonal inundation and the vegetation and wildlife species that utilize these areas are adapted to seasonal flooding. Section 7.4, Agriculture and Forest Resources, discusses the potential for delays in planting crops in the bypasses, and the analysis in Section 7.6.1 indicates that impacts on agriculture in the bypasses could affect special-status species that utilize these areas if farmers in these areas choose to

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		hold the potential to cause a decline in the quality and acreage of protected waterfowl and wetland habitats.	convert land to nonagricultural uses. Mitigation measures are identified to reduce or avoid impacts on special-status species that use the habitat in the bypasses. Because the State Water Board cannot guarantee implementation of the mitigation measures, the impacts are potentially significant. The type of easement does not alter the analysis and no additional impact would be identified. The commenter suggests text revisions that would not alter the Staff Report's analysis or conclusions. The suggested revisions to the 2023 draft Staff Report are not warranted. 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.
259	16	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-18. Paragraph 1. [Comment: Importance (H, M, L):]. H. [Issue:] The draft staff report states erroneously that "Agricultural activity mainly occurs during late spring and summer when flooding is less common." As demonstrated by Howitt et al 2013 Agricultural and Economic Impacts of Yolo Bypass Fish Habitat Proposals, growers in the Yolo Bypass need their fields to dry before they can start field preparation, so have requested an inundation end date of March 1st (Yolo County agreed to an inundation end date of March 15th for the Big Notch Project as a compromise). Growers also can harvest rice through the fall and may harvest into November. In 2023, growers harvested fields in November, for example. The description of agricultural activity and impacts is more accurate on page 7.4-94, which cites the Howitt et al 2013 study, but on this page it still states "Changes in Bypass flow from April through June were evaluated to assess the effect of Bypass inundation on agriculture," which will not capture all of the impacts. [Proposed Solution:] The Board should update the draft staff report with information about agricultural activity from Howitt et al 2013. This section also should cite the 2013 study. The Board should also update the analysis to analyze impacts in February and March as well, similar to the Howitt et al 2013 study.	See the response to comment 259-13 regarding potential impacts on the Yolo Bypass. In addition, lands within the Yolo Bypass are already subject to periodic flooding, and lands within the Yolo Bypass Wildlife Area are restricted by State Reclamation Board flowage easements that grant the right to inundate lands with floodwaters under existing conditions (^California Department of Fish and Game 2008). The study (Howitt et al. 2013) referenced by the commenter is already cited in Section 7.4, Agriculture and Forest Resources (see p. 7.4-94 of the 2023 draft Staff Report). The Staff Report discusses that when inflow to the Yolo Bypass stops before early April, the effect on agriculture is much smaller than when inflow stops after early April (Howitt et al. 2013). The Staff Report already acknowledges that changes in hydrology could cause an increase in inundation in the Yolo Bypass that could affect agriculture. Although affected acreage would likely be small, the Staff Report discloses that this impact could be potentially significant. It is not necessary to extend the analysis to February and March. The commenter suggests text revisions that would not alter the Staff Report's analysis or conclusions. The suggested revisions to the 2023 draft Staff Report are not warranted.

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259	17	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-18. Paragraph 1. [Comment: Importance (H, M, L):]. H. [Issue:] The draft staff reports states "Late spring flooding in the Yolo Bypass can negatively affect farming," which is true, but early spring flooding and late fall flooding also can negatively affect farming. The draft staff report also states "Flood in April through June can damage or destroy crops planted during dry periods in March through May." While this is true, it is not a complete understanding of Bypass agricultural production. Flooding in February and March can prevent crop planting and result in either the inability to plant or significant loss of crop yield, resulting in agricultural revenue loss, Yolo County revenue loss, and job loss. [Proposed Solution:] The Board should update this sentence to state, "Early and late spring flooding, as well as late fall flooding, can negatively affect farming." The paragraph also should be updated to include the following sentence, "Flooding in March through June, or early inundation in October or November, could negatively affect farming in the Yolo Bypass, including destroying crops completely or significantly reducing crop yield." The Board should cite the 2013 study for this information.	Please see the response to comments 259-13 and 259-16. The commenter suggests text revisions that would not alter the Staff Report's analysis or conclusions. The suggested revisions to the 2023 draft Staff Report are not warranted.
259	18	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-35. Paragraph 4. [Comment: Importance (H, M, L):]. H. [Issue:] The Yolo Bypass is a unique part of the Sacramento/Delta and home to many proposed State and federal multi-benefit projects; impacts to Yolo Bypass agriculture should therefore be modeled with the Bypass-specific Bypass Production Model, a Positive Mathematic Programming model based on Howitt, 1995 like the draft staff report's SWAP model. Since Howitt et al 2013 calibrated this model for six regions of Bypass agricultural production, it's the most appropriate model to use. [Proposed Solution:] The Board should update the impact analysis for the Yolo Bypass to both include the Big Notch Project (as well as other proposed State and federal projects if possible) utilizing the Bypass Production Model (Howitt et al 2013).	Please see the response to comment 259-13 for a discussion about the Big Notch Project in relation to the Bypass Production Model.
259	19	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest	A discussion of the impact and potential significance of reduced water supply on sensitive terrestrial wildlife including

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		Resources. [Page:] 7.4-48. Figure 7.4-11. [Comment: Importance (H, M, L):]. H. [Issue:] The draft staff report's impact analysis show a significant reduction of rice and alfalfa as a result of the proposed plan amendments, both crops which listed terrestrial species such as the Swainson's hawk and giant garter snake are documented to use in the Yolo Bypass and elsewhere in Yolo County as habitat (see Yolo Habitat Conservation Plan/Natural Community Conservation Plan, 2018). The impact analysis does not discuss or mitigate for the impacts on these terrestrial species from this crop loss. [Proposed Solution:] The draft staff report should mention the impact on terrestrial species habitat of conversion of alfalfa and rice in the Sacramento/Delta and refer readers to other chapters where these impacts are thoroughly analyzed and mitigated.	Swainson's hawk and giant gartersnake is found in Section 7.6.1.4, Impact Analysis, of the 2023 draft Staff Report. Please also refer to Section 7.6.1.5, Mitigation Measures, for a discussion of proposed Mitigation Measure TER-a, to mitigate impacts on special-status species. The impacts and mitigation measures are also compiled in summary tables in Chapter 1, Executive Summary.
259	20	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-95. Paragraphs 1-3 and Figure 7-4-34. [Comment: Importance (H, M, L):]. H. [Issue:] As mentioned earlier, the analysis of Yolo Bypass impacts described in this section does not include the proposed operation of the Big Notch Project or utilize the Bypass Production Model to estimate impacts. [Proposed Solution:] The Board should update the analysis of Bypass impacts to include operation of the Big Notch Project and other proposed State and federal multi-benefit projects using the Bypass Production Model (Howitt et al 2013). Yolo County recommends evaluating multiple scenarios to address uncertainty.	Please see the response to comment 259-13 for a discussion about the Big Notch Project and the Bypass Production Model.
259	21	[ATT 1:]. Chapter 7: Environmental Analysis; Section 7.4 Agriculture and Forest Resources. [Page:] 7.4-100. Paragraph 1. [Comment: Importance (H, M, L):]. H. [Issue:] Mitigation Measure MM-AG-a-a, e, especially element #8 "Minimize Disruptions to Agriculture in the Sutter and Yolo Bypasses from Increased Floodplain Inundation" is not sufficient to address Yolo Bypass impacts to agriculture. The existing analysis underestimates the impact to agriculture in the Yolo Bypass, a land use important to the Yolo Bypass Wildlife Area (which depends on lease revenue from ag and waterfowl/shorebird habitat), the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (rice provides habitat for giant garter snake in the Bypass), and for flood protection (ag maintains vegetation important to maximize	Please see the response 259-13 regarding the impacts on agriculture in the Yolo Bypass. However, it is unclear from the comment what impact the commenter is claiming should be mitigated and how it would be mitigated by the commenter's proposed solution. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion on funding for mitigation measures.

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		Bypass flood capacity), because of the inadequacies in the analysis described earlier. The mitigation measure proposes only to "monitor flow conditions" and "collaborate on planning efforts" and "coordinate restoration projects and other implementation activities to maximize fish and wildlife beneficial uses while minimizing disruptions to agricultural operations associated with floodplain inundation to the extent feasible." This language ignores the terrestrial species and other benefits of existing agriculture in the Bypass in favor of new projects. [Proposed Solution:] The Board should propose a mitigation measure to provide funding to implement drainage improvements projects in the Yolo Bypass consistent with the 2020 Yolo Bypass Drainage and Water Supply Infrastructure Improvement Update and to fund activities in Yolo County's 2014 Agricultural Economic Development Fund which will help maintain agriculture in the Yolo Bypass. The Board should also propose to fund an implementation plan for the Yolo Bypass Cache Slough Partnership, as well as provide funding for a Regional Coordinator to help implement the Implementation Plan.	
259	22	[ATT 1:]. 7.6.1 Terrestrial Biological Resources. [Page:] 7.6.1-31. Paragraph 3, First paragraph under section "Flood Bypasses". [Comment: Importance (H, M, L):]. L. [Issue:] The Board states "When flooded, the bypasses provided important habitat for juvenile fish and wintering waterfowl." The introduction to the Bypasses does not discuss the benefits to terrestrial species from flooding of rice fields and flooding of wetlands when there are not high-flow conditions that cause the Fremont Weir to overtop. It's great that the Board included a sentence in the third paragraph starting with "Yolo Bypass provides habitat for special-status species such as giant garter snake..." but this information should be in the introduction as well. It's also great that the Board has a sentence about special status species use of cropland on page 7.6.1-33. [Proposed Solution:] Amend the introductory sentence as follows "The Sacramento River watershed contains the Sutter and Yolo Bypasses which are used primarily for agriculture and wildlife management but also receive flood water under high-flow conditions. Agriculture in the bypasses, especially rice,	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 suggested revisions would not add substantial new information to the environmental setting, nor would they alter the impact conclusions made in the 2023 draft Staff Report with respect to these species. The revisions are not materially significant, and therefore, have not been made to the 2023 draft Staff Report.

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		provides important habitat for terrestrial species, including shorebirds, waterfowl migrating along the Pacific Flyway, and special-status species such as the Swainson's hawk and the giant garter snake."	
259	23	[ATT 1:]. 7.6.1 Terrestrial Biological Resources. [Page:] 7.6.1-57. Second Paragraph under Floodplain Habitat. [Comment: Importance (H, M, L):]. M. [Issue:] The Board states "These changes would not adversely affect the wetlands and riparian habitat in floodplains, including the Sutter and Yolo Bypasses, because their areas are already subject to seasonal inundation and the vegetation and wildlife species these areas are adapted to seasonal flooding." This is not accurate. Yolo County worked with Ducks Unlimited in 2014 to evaluate the impacts of additional inundation in the Yolo Bypass and determined there may be impacts, such as deeper water that prevents ducks from reaching food and increases in the production of high-energy food for waterfowl because wetlands managers cannot drain their wetlands at optimal times for moist soil management. [Proposed Solution:] The U.S. Fish and Wildlife Service is currently working with Ducks Unlimited to evaluate the proposed impacts of additional flooding from the Big Notch Project on existing waterfowl conservation easements in the Yolo Bypass. The Board should incorporate information from this study into this impact analysis to more accurately reflect the potential impacts of the proposal to terrestrial species in the Yolo Bypass. The Board also should work with the Yolo Habitat Conservancy, charged with implementing the Yolo HCP/NCCP (including giant garter snake and Swainson's hawk conservation) to ensure no negative impacts on efforts to conserve habitat for these species in the Yolo Bypass.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion about the level and scope of the analysis presented in the 2023 draft Staff Report. The 2023 draft Staff Report notes that increases in the duration and frequency of inundation would generally improve habitat for wintering waterfowl and may benefit some other wildlife species that occur in floodplains. The 2023 draft Staff Report also acknowledges that increased inundation could occur in April through June after the planting season begins which could lead some farmers to convert land to non-agricultural uses which could result in a reduction of agricultural habitat for special-status wildlife species. Section 7.6.1, Terrestrial Biological Resources, identifies potentially significant impacts on sensitive species including giant gartersnake and Swainson's hawk. Section 7.6, Mitigation Measures, Mitigation Measure TERR-a:1 Minimize Impacts on Sutter and Yolo Bypass Agricultural Lands addresses these impacts through implementation of Mitigation Measure MM-AG-a,e: 4 and Mitigation Measure MM-AG-a,e: 8 (see Section 7.4, Agriculture and Forest Resources). The State Water Board agrees that consultation and coordination with the Yolo Habitat Conservancy should occur. This measure and referenced measures from Section 7.4, Agriculture and Forest Resources, were included in the 2023 draft Staff Report to reduce potential effects and minimize disruptions to agriculture in the Sutter and Yolo Bypasses from increased floodplain inundation. This measure includes continuation and expansion of collaborative efforts between federal, state and local agencies, including the Yolo Habitat Conservancy. These efforts include monitoring of flow conditions and coordinating restoration projects to maximize fish and wildlife beneficial uses while minimizing disruptions to floodplain agricultural operations. The referenced study is not attached to the comment letter, nor is a citation included to make the referenced study easily

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			retrievable. As such, the State Water Board staff could not evaluate its scientific validity to the project.
259	24	[ATT 1:]. 7.6.1 Terrestrial Biological Resources. [Page:] 7.6.1-87. [Section 7.6.1.5] Mitigation Measures section. [Comment: Importance (H, M, L):]. H. [Issue:] See Yolo County's comments on Mitigation Measure MM-Aga, e as they relate to this section as well since that measure is included here as a mitigation measure for terrestrial species impacts. In addition, the Habitat Protection and Restoration Actions should commit funding to the Yolo Habitat Conservancy to purchase easements to manage habitat for terrestrial species consistent with the Yolo HCP/NCCP and should commit funding to improve management of the Yolo Bypass Wildlife Area, which will be impacted by the increased inundation and will need additional funding for debris, sedimentation, and weed management, in addition to drainage canal and other infrastructure maintenance. All of the proposed mitigation actions are ideas and not commitments, but the proposed impacts are significant. Yolo County recommends committing funds to address these impacts. [Proposed Solution:] Strengthen mitigation measures to commit funding to the Habitat Protection and Restoration Actions, as well as include a detailed discussion (and cite) the Yolo HCP/NCCP and potential impacts on the Yolo HCP/NCCP [Habitat Conservation Plan/Natural Community Conservation Plan] from implementation of the proposed plan amendments. Also provide a description of the Yolo Bypass Wildlife Area and potential impacts on this 16,000 acre wildlife refuge, and commit funding to address impacts.	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of non-flow measures and State Water Board's authority to impose non-flow measures. The 2023 draft Staff Report acknowledges potential adverse impacts to wetland habitat due to changes in hydrology in Section 7.6.1.4, Impact Analysis. The Yolo Bypass Wildlife Area is described in detail in Section 7.6.1.3, Regulatory Setting, as well as Section 7.4.2.6, Sacramento River Watershed. Changes in streamflows on the lower Sacramento River, Cache Creek, and Putah Creek would likely cause an increase in the frequency and duration of flooding in the Yolo and Sutter Bypasses, which could affect natural communities and agriculture there—in particular, in the lower half of the Yolo Bypass below Putah Creek. As discussed in Section 7.4, Agriculture and Forest Resources, when Yolo Bypass inundation occurs before early April, the effect on agriculture is much smaller than if inundation occurs after early April, when planting begins. There would be occasional increases in some flow scenarios between April and June; the most frequent increases would occur between December and March, before the planting season. Delays in planting crops, as well as the increased inundation of natural communities in the bypass, could affect special-status wildlife species that utilize these areas (e.g., giant gartersnake, western burrowing owl, white-tailed kite, Swainson's hawk, tricolored blackbird) by making these habitats less available. The 2023 draft Staff Report notes that increases in the duration and frequency of inundation would generally improve habitat for wintering waterfowl and may benefit some other wildlife species that occur in floodplains such as the Yolo Bypass. However, the draft Staff Report also discusses the importance of the timing of these inundation events. In Section 7.6.1.4, Impact Analysis, Impact TER-a, the State Water Board acknowledges that increased inundation in the Yolo and Sutter bypasses could occur in April through June after the planting season begins which could lead some farmers to convert land to non-agricultural uses,

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			which in turn could result in a reduction of agricultural habitat for special-status wildlife species. Mitigation for these impacts is discussed in Section 7.6.1.5, Mitigation Measures, Mitigation Measure TERR-a:1 Minimize Impacts on Sutter and Yolo Bypass Agricultural Lands. Increased acquisition of conservation easements is one method to encourage continued use of land for agricultural purposes in the bypasses. Another is to communicate and collaborate with farmers to maintain economic feasibility of continued use of land for agricultural purposes in the bypasses. An interagency coordination group such as the Yolo Bypass and Cache Slough Partnership could serve as a forum for expanding existing efforts and developing additional planning and implementation measures to reduce the impacts on agricultural operations associated with increased floodplain inundation during the planting season. These measures could be implemented in conjunction with planned habitat restoration and other efforts, which could promote multiple beneficial uses within the Yolo Bypass. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion about the level and scope of the analysis presented in the 2023 draft Staff Report, as well as a discussion of mitigation measures. The State Water Board has evaluated and incorporated mitigation measures throughout the draft Staff Report. However, because the State Water Board does not have the authority to impose mitigation measures beyond its regulatory authority, the 2023 draft Staff Report includes additional suggested mitigation measures that other entities could take to lessen project impact and the Board encourages those entities to take those actions. Indeed, Section 7.6.1.5, Mitigation Measures, Mitigation Measure TERR-a:2 Habitat Protection and Restoration Actions includes both suggested actions for other agencies, as well as actions the State Water Board will undertake, including reducing water transfer fees for transfers to wildlife refuges, making minor modifications to water right priorities to ensure adequate water supply to refuges, and consultation and coordination with other agencies to secure and distribute funding to support habitat restoration projects. For a discussion of impacts to terrestrial biological resources

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			beyond those to special status species, see Section 7.6.1.4, Impact Analysis, Impacts TER-b through TER-f.
259	25	[ATT 1:]. 7.6.1 Terrestrial Biological Resources. [Page:] 7.6.1-88. [Section 7.6.1.5, Part 4] Mitigation Measures section. [Comment: Importance (H, M, L):]. H. [Issue:] Under Special-Status Species Management Measures, it states to protect giant garter snake, agricultural water users and suppliers and land managers should develop and implement management actions such as the following...avoiding or minimizing crop idling or conversion of rice fields to other uses near areas likely to support giant garter snake populations." The entire Yolo Bypass is giant garter snake habitat (see Yolo HCP/NCCP, which requires a certain number of acres of habitat conservation in the Yolo Bypass for giant garter snake) and as Yolo County pointed out in comments on the Agricultural and Forest Resources section, the Board has not sufficiently evaluated the potential impacts to Yolo Bypass agriculture, in particular rice. It is highly likely the combination of the impacts from the proposed plan amendments, the Big Notch Project, and other projects will result in the idling or conversion of rice fields in the Yolo Bypass, or at the very least the impact is not known. [Proposed Solution:] The Board should conduct a Yolo Bypass-specific analysis of the potential impacts on terrestrial species habitat in the Bypass in coordination with the Yolo Habitat Conservancy, the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife, and the Yolo Basin Foundation, and modify the mitigation measures to provide real funding to address the impacts.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion about the level and scope of the analysis presented in the 2023 draft Staff Report as well as a discussion about mitigation measures. Also see Common Response 1.3, Revised Proposed Plan Amendments, regarding comments on other water supply projects. The 2023 draft Staff Report identified and disclosed potential impacts to special-status wildlife species that rely on Sacramento/Delta water supplied to wildlife refuges and certain agricultural lands in Section 7.6.1, Terrestrial Biological Resources. The species with the greatest potential to be adversely affected by changes in water supply, based on their rarity and dependence on wetland habitat at wildlife refuges and specific crops, are giant gartersnake, Swainson's hawk, greater sandhill crane, tricolored blackbird, and California black rail. Therefore, the Statewide Agricultural Production (SWAP) model was utilized to determine the percentage change in acreage of crops most important to these species compared to baseline conditions. For planning purposes and transparency for decision-making purposes for agricultural users, SWAP evaluates a range of effects depending on groundwater conditions from no replacement and maximum replacement groundwater pumping. Impacts to these species are evaluated and disclosed based on SWAP results. In addition, habitat restoration projects such as the Big Notch Project are evaluated for environmental impacts in Section 7.22, New or Modified Facilities, and Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes.
259	26	[ATT 1:]. 9.5 Changes in Hydrology and Water Supply. [Page:] 9-23. Figure 9.5-3. [Comment: Importance (H, M, L):]. H. [Issue:] The Sacramento River inflow would increase on average during most water years and the median hydrology indicates that increases would likely occur during April and May. The staff report fails to address the possibility for this changed flow regime to contribute additional flows towards either the Big Notch Project's operational responses to Sacramento River elevations or the potential for such flows to contribute to	The Big Notch Project was not listed in the 2022 Memorandum of Understanding, nor was the project complete at the time of Staff Report development. The VA Parties will need to revisit the scope and agreements in order to incorporate this project properly for consideration.

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		operation of BNP beyond the currently permitted operations end date of 3/15 (a possibility described in DWR adaptive management materials for the project). There is concern the Voluntary Agreements will have unintended impacts on the Yolo Bypass by providing increased Sacramento River flows most years to the BNP that were not previously contemplated. [Proposed Solution:] The proposed Vas that result in increased flows in the Sacramento River, particularly during April and May need to address how additional flows resulting from VA implementation will--or will not--influence operations of the BNP, such as by facilitating changes in project operations to extend the March 15 operational end date to a later timeframe. The Board should encourage consultation with Yolo County on this issue, consistent with the basic terms of the County's existing agreement with DWR on implementation of the Big Notch Project (available upon request).	
259	27	[ATT 1:]. 9.5 Changes in Hydrology and Water Supply. [Page:] 9-26. [Section:] 9.5.3.3. Sutter and Yolo Bypasses. [Comment: Importance (H, M, L):]. M. [Issue:] Paragraph 1 states the Sutter and Yolo Bypasses fill with "water from local runoff, agricultural return flows, and spills from the Sacramento River during high flow events". This statement is silent on the contributions from the Big Notch Project. [Proposed Solution:] Although the Vas are looking at the physical landscape using a December 2018 baseline, the BNP is near completion and approved to be a major contributor to Yolo Bypass inundation (in particular, by conveying water into the Yolo Bypass at times when it would not otherwise be present). The BNP operations and future adaptive management operations (such as an increase in the volume (beyond 6,000 to as high as 12,000 cfs) or timing (beyond March 15) need to be considered with the proposed Sac River increased flows and cumulative impacts analyzed.	The Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project was not completed at the time of the NOP for this project and therefore was not included in the SacWAM modeling. The Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project is a type of project evaluated in Section 7.21, Habitat Restoration and Other Ecosystem Projects, and is also evaluated in Section 7.23.1.2, Cumulative Project List, and is fully incorporated in the cumulative impact analysis. Please refer to Common Response 7.23, Cumulative Impact Analysis, for responses to comments related to the consideration of additional past, present, and probable future projects in the cumulative impact analysis, including the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project (Big Notch).
259	28	[ATT 1:]. 9.9 Modular Alternatives for Proposed Voluntary Agreements. [Page:] 9-200. [Section:] 9.9.3 Economic Effects. [Comment: Importance (H, M, L):]. L. [Issue:] The statement "It is possible that implementation of this alternative could limit growth in some locations which could also limit future economic growth to some extent" needs to be elaborated upon. [Proposed Solution:] This statement is far too general to enable an understanding of where, and to what extent (among other	It would be highly speculative to describe these potential locations and scale of such limitations. Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the provision for protection of the base upon which HRL flows are intended to be added. Also see Common Response 7.24, Alternatives Analysis, for discussion on the Staff Report's analysis of modular alternatives. Also see Common Response 1.2, Water Quality Control Planning Process, for a

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		things), urban growth could be impaired. The staff report should at least generally describe the locations and scale of such limitations, as well as (if feasible) the current land uses of those areas.	discussion on the Board consideration of factors under Water Code section 13241.
259	29	[ATT 1:]. 9.3 Description of the Proposed Voluntary Agreements. [Page:] 9-6. Paragraph 2. [Comment: Importance (H, M, L):]. H. [Issue:] The proposed VAs include a proposed Governance Program that would "direct flows and habitat restoration, conduct assessments, develop strategic plans and annual reports, implements a science program, and hire staff and contractors" and "anticipates a Systemwide Governance Committee to oversee overall coordination and the VA Program". The VA Science Program is also proposed to "inform decision-making by the Systemwide Governance Committee, Tributary/Delta Governance Entities, and VA Parties; (B) track and report progress relative to the metrics and outcomes stated in Appendix 4; (C) reduce management-relevant uncertainty; and (D) provide recommendations on adjusting management actions to the Systemwide Governance Committee. This description does not explicitly include the assessment of impacts to agriculture and managed wetlands in the Yolo Bypass. [Proposed Solution:] The staff and contractors hired to conduct assessments and oversee overall coordination should have monitoring of impacts to agriculture and other natural resources included as part of their role. In addition, the Governance Committee needs to include a review and response protocol for such impacts in their charter. At a minimum, consider consulting with local agencies (such as Yolo County) as part of the responsibility and charter of the governance structure. VA implementation implicates environmental effects and policy considerations beyond the expertise of many of the VA signatories, making it necessary (or at the very least, helpful) to include counties and other entities with general land use authority in governance matters.	Agricultural impacts under the proposed VA are evaluated in Section 9.7.4, Agriculture and Forest Resources, and Section 7.21, Habitat Restoration and Other Ecosystem Projects, with identified mitigation measures. Sacramento/Delta water supply reductions (and thus flow increases) under the VA pathway would be based on voluntary measures, including agricultural land fallowing, reservoir reoperations, and groundwater substitution. These measures are designed to minimize impacts on agricultural production by targeting lower-revenue or more water-intensive crops and by leveraging flexible water management strategies. Changes in hydrology from implementation of the VA pathway would not be expected to result in increased inundation of the Sutter and Yolo Bypasses during planting season (April through June). Agencies that grant land use approvals that would convert agricultural land to nonagricultural uses can and should impose conditions on such approvals to provide the permanent protection of an area of farmland equal to the converted area. (See Mitigation Measure MM-AG-a,e: 3.) In addition, Yolo County can reach out directly to HRL participants and request consultation and/or inclusion in relevant HRL governance processes if it so desires. The environmental analysis and Bay-Delta Plan implementation is not reliant on any specific structure or membership of HRL governance; however, the Plan does require annual reporting on HRL decision-making as it relates to the flexibilities cited by the commenter. The annual and periodic reviews provide an opportunity for interested parties to comment on HRL implementation.
259	30	[ATT 1:]. 9.3.6 Points of Comparison for VA Flow Assets. [Page:] 9-13. Paragraph 1. [Comment: Importance (H, M, L):]. M. [Issue:] "The VA Term Sheet describes VA flow assets as additive to the 2019 BiOps [Biological Opinions] condition. The 2019 BiOps condition is different than the Staff Report baseline in that the 2019 BiOps condition is the theoretical assumed starting point	The Big Notch project was included in the cumulative impact analysis as the "Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project." Please see Staff Report Sections 7.23 and 9.7.21, each titled Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes.

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		for accounting purposes upon which VA assets would be added, rather than a reflection of current or prior existing conditions or baseline." Although the VA Term Sheet describes VA flow assets as additive to the 2019 BiOps condition and the baseline condition is of the current landscape in December 2018, the landscape changes as a result of the 2019 BiOp (such as the Big Notch Project) cannot be excluded from the analysis of cumulative impacts from the Voluntary Agreements. [Proposed Solution:] Include landscape changes resulting from the 2019 BiOp in the impacts analysis of the Voluntary Agreements and in consideration of the adaptive management implementation.	
259	31	[ATT 1:]. 7.21 Habitat Restoration and Other Ecosystem Projects 7.21.2 Evaluation of Potential Impacts. [Page:] 7-21-27. A. Construction AG Mitigation Measures (CMM-AG-ae). [Comment: Importance (H, M, L):]. M. [Issue:] The County commends the Board for its inclusion of the measures included in CMM-AG-a-e, and particularly for including a measure that would (if adopted) require agricultural mitigation consistent with local requirements. The County urges the Board to include the same suite of mitigation measures in Chapter 9 with respect to impacts of the Voluntary Agreements; currently, Chapter 9 contains an abbreviated (and inferior) set of proposed mitigation measures. Also, Paragraph A.1 describes designing projects to avoid or minimize construction related impacts on agriculture by establishing buffers, avoiding isolation of farmlands, and avoiding agriculturally protected lands, but it does not address early engagement with agricultural interest in the project boundary or neighboring area. [Proposed Solution:] Please include the same suite of mitigation measures in Chapter 9. Also, the Board should consider adding utilization of the Delta Stewardship Council's "Good Neighbor Checklist" when determining specific ag mitigation measures within a project area. Lastly, as a general comment, the Board should clarify whether state agencies are legally obligated to comply with mitigation measures adopted by the Board.	As noted in Staff Report Chapter 9, Proposed Voluntary Agreements, the proposed Voluntary Agreements (VAs) include physical habitat restoration on a portion of the Sacramento/Delta tributaries. The potential environmental impacts of physical habitat restoration and other complementary ecosystem projects, including habitat restoration contemplated under the VA pathway, are analyzed and mitigation measures are identified in Section 7.21, Habitat Restoration and Other Ecosystem Projects. The mitigation measures identified in Section 7.21 are consistent with the Delta Stewardship Council's "Good Neighbor Checklist." Please refer to Common Response 7.1, General CEQA and Approach to the Analysis, for responses to comments regarding legal obligations for compliance with mitigation measures adopted by the State Water Board.
259	32	[ATT 1:]. 7.21 Habitat Restoration and Other Ecosystem Projects 7.21.2	Mitigation Measure 7.21 MM-AG-a-e: B4 (Physical Habitat Restoration AG Mitigation Measures—Monitor for Seepage) includes a pre-construction seepage monitoring/evaluation

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		Evaluation of Potential Impacts. [Page:] 7-21-29. [B. Physical Habitat Restoration AG Mitigation Measures.] 4. Monitor For Seepage. [Comment: Importance (H, M, L):]. M. [Issue:] Paragraph 4 describes mitigation measures of monitoring for the potential impact of seepage on neighboring agricultural properties with a response in installing subsurface drainage infrastructure but does not include an evaluation process in identifying pre-project groundwater levels or identification of anticipated areas of impact. Nor does Paragraph 4 clearly indicate that mitigation of seepage impacts is required, as opposed to merely something to be discussed with affected landowners. The current language leaves this somewhat unclear. [Proposed Solution:] The Board should take a more direct approach to mitigating effects of seepage and express that feasible mitigation is required, not merely something for various implementing agencies to develop in consultation with affected landowners. Further, the Board should consider monitoring groundwater levels in average, wet, and consecutive drought years to establish a baseline of groundwater levels prior to project construction. The baseline should identify areas susceptible to impacts based on existing crop type. Once determined, the Board should utilize the Good Neighbor checklist prior to project construction.	component to identify baseline groundwater conditions. This mitigation measure has been revised to clarify that mitigation measures will not only be developed in consultation with the affected landowner, but will also be implemented accordingly, and that seepage monitoring would continue during and after project implementation on agricultural land that may be subject to seepage resulting from habitat restoration. Mitigation Measure 7.21 MM-AG-a-e: B4 is consistent with the Delta Stewardship Council's "Good Neighbor Checklist," which notes that habitat restoration projects should consider monitoring and mitigating project-related changes related to drainage and seepage issues that could impair neighboring agricultural land.
259	33	[ATT 1:]. 7.21 Habitat Restoration and Other Ecosystem Projects 7.21.2 Evaluation of Potential Impacts. [Page:] 7-21-28. [Section:] 7.21 MM-AGa-e, B.2 Physical Habitat Restoration AG [Comment: Importance (H, M, L):]. M. [Issue:] The mitigation measure described in this paragraph to "obtain easements on existing agricultural land for minor changes in agricultural practices that would increase the value of the agricultural crop(s) to wildlife may impact or interfere with the Yolo HCP/NCCP. Seeking easements over agricultural properties for the benefit of wildlife is not an agricultural mitigation measure. [Proposed Solution:] This agricultural mitigation measure should be replaced with a measure that will truly help agricultural land preservation and not interfere with local habitat conservation plans such as inclusion and funding of local drainage improvement projects. Example projects can be found in the Yolo Bypass Drainage and Water Infrastructure Improvement Study Update (available upon request).	Section 7.21.2.4, Biological Resources, of the 2023 draft Staff Report considers potential impacts related to conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan and proposes mitigation in CMM-BIO-a-f: 13 (Compliance with HCPs and NCCPs). The mitigation proposed in Section 7.21, Habitat Restoration and Other Ecosystem Projects, applies to those entities that choose to undertake physical habitat restoration toward achieving the overall goal of improving conditions for fish and wildlife in the Sacramento/Delta. Restoration projects should be designed and sited to avoid or minimize impacts on agricultural lands by focusing on public land and/or working with willing sellers where at least part of the reason to sell would be an economic hardship (e.g., land that floods frequently or where levees are too expensive to maintain) (see 7.21 MM-AG-a-e: B1, Physical

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			Habitat Restoration AG Mitigation Measures—Project Siting and Design), to the extent possible.
259	34	[ATT 1:]. 6.3 Changes in Hydrology. [Page:] 6-25. [Section:] 6.3.1.2 Sacramento Valley Flood Bypasses, Paragraph 1. [Comment: Importance (H, M, L):]. M. [Issue:] Increases in outflow from Cache and Putah Creek produce substantial increases in flow in the lower half of the Yolo Bypass "may lead to increases in surface area inundation and floodplain habitat" needs to be studied further and verified for effectiveness in habitat value, in addition to impacts on existing land uses including agriculture and managed wetlands. Further, increases in outflow would likely increase effects of the Big Notch Project on properties downstream of Cache and Putah Creek, and potentially impede drainage of the Yolo Bypass following operation of the Big Notch Project headworks. The existing March 15 end date for Big Notch operations was developed carefully to balance potential benefits to salmonids with impacts to agriculture and other land uses in the Bypass, and slower drainage as well as direct impacts to properties in the southern half of the Yolo Bypass would introduce additional challenges to maintaining agricultural land uses and preserving related benefits for terrestrial species and floodplain management. [Proposed Solution:] Whether best characterized as a cumulative impact or otherwise, as this comment indicates, the potential for increased impacts arising from changes in water management in conjunction with operations of the Big Notch Project needs to be analyzed in the Staff Report.	The potential impacts of increased inundation in the Yolo Bypass on existing land uses and other resources is discussed extensively in relevant sections of the draft Staff Report, including Section 7.4, Agriculture and Forest Resources, and Section 7.6.1, Terrestrial Biological Resources. The Draft Staff Report considers impacts of habitat restoration projects in Section 7.21, Habitat Restoration and Other Ecosystem Projects, and in Section 7.23, Cumulative Impact Analysis, Growth-Inducing Impacts, and Significant Irreversible Environmental Changes. It is assumed that impacts of habitat restoration projects would be similar to those discussed in the draft Staff Report. Please refer to Common Response 7.23, Cumulative Impact Analysis, for responses to comments related to the consideration of additional past, present, and probable future projects in the cumulative impact analysis, including the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project (Big Notch).
259	35	[ATT 1:]. 6.3 Changes in Hydrology. [Page:] 6-25. [Section:] 6.3.1.2 Sacramento Valley Flood Bypasses, Paragraph 1. [Comment: Importance (H, M, L):]. H. [Issue:] It is stated the increase in streamflow will result in a very small change in the frequency and magnitude of spills into the Sutter and Yolo Bypasses and the Big Notch Project is not included in the SacWAM modeling. Yolo County is concerned the exclusion of Big Notch Project outflows in the SacWAM modeling misinforms and underestimates the overall impacts on agriculture, migratory bird habitat, and the Yolo HCP/NCCP. [Proposed Solution:] The Board should consider including the Big Notch Project permitted flows and adaptive management flows in the SacWAM modeling	See the response to comment 259-35 regarding the inclusion of the Big Notch Project in the draft Staff Report.

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		to fully determine if there is any discrepancy in the determination of impacts.	
260	1	Introduction and Overview The State Water Board Should Approve and Advance the Healthy Rivers and Landscapes Agreements At the outset, NCWA urges the State Water Board to approve and advance the Agreements to Support Healthy Rivers and Landscapes [Footnote 2: The "Agreements to Support Healthy Rivers and Landscapes" is the updated name and reference for the "Voluntary Agreements" or "Vas" as described and detailed in DSR chapter 9 and Appendix G.] (Healthy Rivers Agreements) as the program of implementation for the updated Bay-Delta Plan. This program will: - Significantly reduce environmental effects throughout California compared to the traditional regulatory flows-only approach. - Serve as the best alternative to establish water quality control measures and flow requirements needed to provide reasonable protection of beneficial uses in the watershed, including environmental, municipal, domestic, and agricultural water supplies. - Provide for the early implementation of projects with support from state and federal agencies. - Act as a transformational program that 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 provide significant funding for habitat improvements and water purchases. - Serve as a model for future updates of the Bay-Delta Plan through a comprehensive approach that integrates flow and non-flow measures, including habitat restoration and landscape	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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		reactivation, informed by ongoing adaptive management based upon a robust science program and guided by a collaborative governance structure. - Avoid the scale and extent of litigation challenging the State Water Board's update, as is currently occurring against the Board's Phase 1 update to the Bay-Delta Plan. More specifically, the Healthy Rivers Agreements alternative is the culmination of more than five years of collaboration among the California Natural Resources Agency (CNRA), the California Environmental Protection Agency (CalEPA), public water agencies throughout California and other stakeholders to develop a modern, comprehensive, and integrated approach to protecting all beneficial uses of water in the Bay-Delta watershed. Consistent with the Bay-Delta Plan Update's objective of enhancing instream flows, Sacramento River Basin water users have committed to provide approximately 250,000 acre-feet of instream flow assets in dry, below normal, and above normal years. This commitment fulfills the requests by the Directors of the Departments of Water Resources (DWR) and Fish and Wildlife (CDFW) for flows from the Sacramento River Basin and has been determined by these agencies to meet outflow requirements. State Team modeling demonstrates the physical existence of these functional flows in the Sacramento River, its tributaries, and the Delta. As to habitat enhancement projects and other measures, Sacramento River Basin water users, working with CDFW, have developed comprehensive lists of habitat enhancement projects for each of the four rivers in the basin. The parties are implementing projects on each river with assistance from Proposition 68 in partnership with the Newsom Administration. In particular, scientists have recognized that food is a primary limiting factor for the recovery of salmon and other fish species in the Sacramento Valley. Sacramento River water suppliers have developed a series of proposed actions that include: (1) growing fish on rice lands and then releasing them into rivers; and (2) producing fish food on farmland by strategically inundating	

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		lands within the traditional floodplain then returning the food-rich waters to rivers when it benefits migrating juvenile salmon. The water is a combination of flows strategically routed into flood protection bypasses to maximize these ecosystem benefits and water that is diverted from rivers to rice lands and other managed wetlands during the fall and winter.	
260	2	The Healthy Rivers Agreements alternative is a \$1.5 billion program to be implemented over a term of eight to fifteen years. The program involves contributions from water users throughout the state of: (1) approximately \$500 million to a water revolving fund; and (2) more than \$230 million to a structural science and habitat fund. We anticipate that current and future state bond funds and federal appropriations will support the remainder of the program. Collaborative and regional governance is also a cornerstone of the program. The water suppliers on the four major river systems in Sacramento Valley will work with CNRA, other state and federal agencies, and conservation organizations to further regional management structures that will facilitate collaboration and effective decision-making to advance these actions. The Healthy Rivers Agreements alternative is based on collaborative and structured science that will include careful review of data and testable hypotheses to determine specific flow and structural habitat actions, direct science needs, and incorporate outcomes of the testable hypotheses to continue to inform decision-making to advance and improve fish and wildlife restoration. The program will provide a new opportunity for ridgetop to river mouth water management that will integrate and coordinate the operations of the rivers in the Bay-Delta watershed to provide maximum benefits to fish and wildlife, while providing water to cities, rural communities, and farms. The program also includes processes for resolving litigation and regulatory issues that have stifled implementing innovative water resource stewardship and management practices. By increasing spawning and rearing habitat, protecting reservoir	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; and Common Response 1.3, Revised Proposed Plan Amendments, for information on the regulatory and VA pathways.

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		storage and cold water pools, preserving the ability to implement groundwater/surface water conjunctive use program and other measures, the Healthy Rivers Agreements alternative is the only alternative before the State Water Board that satisfies the requirement that the Bay-Delta Plan reasonably protect beneficial uses in the watershed, including fish and wildlife, irrigation and municipal water supplies, recreation, and power generation. Finally, the Healthy Rivers Agreements alternative is the only alternative before the State Water Board that advances the objectives of the California Water Action Plan that was prepared by CNRA, CalEPA, and the California Department of Food and Agriculture, as well as DWR's California Water Plan and the Delta Stewardship Council's Delta Plan.	
260	3	The Proposed Plan Amendments Based Upon Unimpaired Flow and Other Requirements Are Legally, Factually, and Technically Defective, and the State Water Board Should Reject Them The "proposed Plan amendments" based upon unimpaired flow objectives and other requirements are discussed in detail in DSR chapter 5 and section 7.1.4.1, and are more succinctly described in the DSR at pages 1-2 – 1-3, and 7.1-1. The proposed objectives of most concern to NCWA are: (1) inflows from the Sacramento River, its tributaries, and Delta eastside tributaries (the Calaveras, Cosumnes, and Mokelumne Rivers) that would require 55% unimpaired flow, with an adaptive range from 45% to 65% unimpaired flow; (2) inflow-based Delta outflows that would require inflows required as part of the Bay-Delta Plan, including from the Sacramento/Delta tributaries and San Joaquin River and tributaries, to be provided as outflows; and (3) the narrative cold water habitat objective that would require reservoirs to be operated in a manner that provides cold water habitat for salmonids or other measures to provide cold water habitat. (DSR at p. 7.1-1.) NCWA acknowledges that flow is an important component of habitat, but we need a new approach where every drop of water serves a specific and targeted beneficial use or multiple uses. The updated Delta water quality standards should protect all	Please see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, of the Staff Report and Common Response 3.1, Fish Protection, for discussions of the benefits of increased flow for fish and wildlife. Please also see Common Response 1.2, Water Quality Control Planning Process, for a discussion of the consideration of beneficial uses.

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		beneficial uses. The flow only approach under the proposed Plan amendments will not improve fish and wildlife and will not reasonably protect all beneficial uses, including water supplies for millions of Californians and hydroelectric power generation that is essential to California's resilient energy grid.	
260	4	A Flow Only Approach Does Not Work for Today's – or Tomorrow's – California The proposed Plan amendments and their flow-centric approach, if implemented, would have significant negative impacts throughout California because they: - focus on one beneficial use of water (instream flow for fish) without balancing and protecting all beneficial water uses, including water for drinking and sanitation for cities and rural communities, fire suppression, farms, salmon, birds and wildlife along the Pacific Flyway, hydroelectric generation, and recreational opportunities;	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the consideration of beneficial uses.
260	5	The proposed Plan amendments and their flow-centric approach, if implemented, would have significant negative impacts throughout California because they: - ignore the state policy for "One Delta, One Science" and the Delta Science Program's conclusion that directing more water to a sterile and inhospitable rip-rapped channel in the Delta will not benefit fish or other aquatic species, regardless of how much water is applied;	Please see Common Response 3.1, Fish Protection, for a discussion of the State Water Board's use of best available science and the Board's approach to analyzing the effects of flow on species abundance and habitat benefits analysis. As further discussed in 2023 draft Staff Report Section 7.21, Habitat Restoration and Other Ecosystem Projects, the State Water Board acknowledges that the benefits of increased flow are further enhanced when implemented in concert with non-flow measures such as physical habitat restoration, control of invasive species, and other efforts. However, non-flow measures often depend on sufficient flow for successful implementation. For an in-depth examination of the benefits of flow and its role as a critical element of protection and restoration, see Chapter 3 of the 2023 draft Staff Report, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations.
260	6	The proposed Plan amendments and their flow-centric approach, if implemented, would have significant negative impacts throughout California because they:	The importance of increased streamflow is well documented in Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, of the draft Staff Report and the impact on water supply due to increased streamflow requirements is thoroughly evaluated in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis. The Plan

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		- will deplete reservoir storage and thus lose the benefit of water storage (including carryover storage) in a way that will create greater risk for all beneficial uses during dry years such as 2014-2015 and 2021-2022, particularly under various climate change scenarios evaluated by the state administration;	provides adaptive implementation to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat. Additional flexibilities are provided for cold water habitat implementation, such as passage, temperature control device measures, riparian habitat improvements, and other measures. Additionally based on public comments, the revised proposed project includes “water supply adjustments” to reduce water supply impacts and allow more water to be stored in reservoirs on initial implementation. These refinements include the possibility of moving up in the range of unimpaired flow under certain conditions and the potential for modifying the water supply adjustments in the future. Please see Common Response 1.3, Revised Proposed Plan Amendments, for additional details on the regulatory pathway. Please also see Common Response 4.2, Drought and Climate Change, for responses to comments that raise issues with impacts associated with climate change and multi-year droughts.
260	7	The proposed Plan amendments and their flow-centric approach, if implemented, would have significant negative impacts throughout California because they: - undermine significant fishery efforts and success stories in areas upstream of the Delta, which have benefitted from integrating functional flows with habitat improvements and partnerships among our agencies; and	The regulatory pathway of the revised proposed Plan amendments includes adaptive management and local cooperative solutions provisions that enable tailoring implementation of the flow requirements to individual tributaries, including managing flow requirements and habitat restoration in concert to maximize benefits. The revised proposed Plan amendments also include complimentary habitat restoration actions to be completed by other agencies and entities. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on these provisions. The benefits of flow and non-flow measures are discussed in Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, and Chapter 4, Other Aquatic Ecosystem Stressors,, respectively, of the Staff Report, as well as in Common Response 3.1, Fish Protection.
260	8	The proposed Plan amendments and their flow-centric approach, if implemented, would have significant negative	The Staff Report recognizes that identifying opportunities for groundwater recharge may be challenging (see Impact GW-b in Section 7.12.2.3, Impact Analysis). It is unclear whether the commenter is referring to groundwater recharge resulting from

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		impacts throughout California because they: - result in less surface water recharging groundwater basins to help California comply with the Sustainable Groundwater Management Act (SGMA) without significant economic impacts.	irrigation; if this is the intention, the Staff Report recognizes potentially significant impacts to groundwater resulting from changes in streamflows and reduced incidental groundwater recharge from irrigation. Chapter 8, Economic Analysis and Other Considerations, provides information on SGMA funding assistance programs (See Section 8.4.5.2, Available Funding Programs). Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more information regarding groundwater recharge and SGMA overlap with the Sacramento/Delta update to the Bay Delta Plan. Please also see Common Response 8.1, Economic Analysis and Other Considerations, for more discussion on the economic effects that may result from the Sacramento/Delta update to the Bay-Delta Plan.
260	9	A Flow Only Approach Will Prevent Transformative Change For the past several decades, the principal stressor addressed through various regulatory processes has been flow, and fishery populations have continued to decline, notwithstanding the ever-greater quantities of water directed at “solving” the problem. In the California Water Action Plan, the administration committed itself to seeking transformative change by embracing new science and re-thinking old assumptions. Transformative change will not occur if we continue down the same flow only path.	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the consideration of non-flow measures and Common Response 3.1, Fish Protection, regarding the use of best available science. 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.
260	10	Implementing the Flow Only Approach Would Not Provide Any Significant Benefits to Delta Fish Populations The DSR incorrectly assumes that correlations between higher flows and higher fish abundance indices mean that higher flows caused the higher abundance indices in the past, and that higher flows in the future will cause higher indices. The State Water Board’s Final Scientific Basis Report (SBR) itself acknowledges that “the specific mechanisms underlying the flow-abundance relationships are generally not resolved,” and that other conditions like uncontrolled tributary inflows, floodplain inundation, and increased turbidity that occur during natural storm events may have beneficial effects on Delta fish. (DSR	Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, of the Staff Report and the peer-reviewed 2017 Scientific Basis Report provide an abundance of evidence from peer-reviewed scientific literature supporting the link between flow and survival and population abundance indices of native estuarine fish species. See Common Response 3.1, Fish Protection, on flow-benefit analyses and a discussion of the use of statistical relationships from past data. Please also see Common Response 3.1, Fish Protection, on use of best available science. Newman (2008) did not contest the Delta smelt flow-abundance

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		Appen. B at pp. 3-8 – 3-9.) Others have similarly pointed out that reliance on simplistic statistical correlations between flows and fish populations grossly misapprehends the management challenges of the Delta. [Footnote 3: See, e.g., Draft Bay-Delta Plan Workshops Summary Report (Jan. 2013), pp. 6, 9 (key points of disagreement), 20 (Dr. Wim Kimmerer), 24 (Dr. Cliff Dahm), prepared by State Water Board and ICF International, available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/docs/bdworkshopsdraft rpt.pdf.] In particular, the Delta Independent Science Board's comments on the draft SBR stated: [R]egressions 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. Fundamental ecological relationships between newer fish assemblages and changes in chemical discharges and runoff will affect future statistical relationships, as will changes in water temperature. Also, some correlations are spurious, and some statistical analyses have led policies astray. [Footnote 4: Delta Independent Science Board memorandum to Deputy Director, Div. of Water Rights, SWRCB (Feb. 23, 2017) regarding Review of SWRCB's "Working Draft Scientific Basis Report for New and Revised Flow Requirements, Eastside Tributaries to the Delta, Delta Outflow, and Interior Delta Operations," p. 4, available at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/environmental_review/docs/cmp_rvw_cmmnt_isb/20170228_disb_report.pdf.] The DSR (including its Final SBR) continues to ignore reliable scientific reports submitted by NCWA and others—including peer-reviewed scientific reports that have been published in independent scientific journals—that do not support the flow/abundance correlation analysis. [Footnote 5: Newman, K., Sample design-based methodology for estimating delta smelt abundance, San Francisco Estuary & Watershed Science (Oct. 2008), published at https://escholarship.org/uc/item/99p428z6; Latour, R.J.,	conclusions in Chapter 3. Rather, the study was focused on increasing precision and reducing bias in abundance estimates. Latour (2016) does not conclude that the correlations between higher flow and higher fish abundance indices are invalid. Instead, they provide an analysis that seeks not only to identify annual trends, but also to identify interannual trends and work with raw field observations. As part of their results, they determine that on an annual basis, the relationship between higher catch per unit effort (CPUE) (a measure of abundance) and higher total suspended solids (TSS) was the strongest. They note that higher outflow leads to higher TSS concentrations in the Delta, thereby demonstrating an indirect relationship to flow. In addition, they suggest that during the January-June period there are two different dominant flow covariates depending on whether correlated with Delta smelt CPUE or age-0 striped bass. Therefore, the results indicate that there is more than a single dominant flow covariate correlated with fish CPUE in the Delta. They do not indicate that there is no statistical relationships between flow and abundance indices.

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		Explaining patterns of pelagic fish abundance in the Sacramento-San Joaquin Delta, Estuaries and Coasts (2016) 39:233-247, published at https://www.researchgate.net/publication/276103376_Explaining_Patterns_of_Pelagic_Fish_Abundance_in_the_Sacramento-San_Joaquin_Delta .] The DSR does not acknowledge any of these problems and instead continues to assume that correlations between Delta outflows and Delta fish populations indicate causal relationships.	
260	11	Implementing the Flow Only Approach Would Have Devastating Water Supply Impacts The DSR states that implementing the proposed 55%-of-unimpaired-flow objective would cause reductions in water supplies of nearly 1.7 million acre-feet (MAF) per year on average. (DSR at p. 6-57 [Table 6.4-2].) In Below Normal, Dry, and Critical water year types, the reduction in water supplies is even greater, reaching more than 2.2 MAF in Critical years. (Ibid.) These reductions will cause significant impacts on: (a) water supplies for cities, rural communities, and farms; (b) water supplies needed for fish habitat preservation and enhancement projects; (c) water supplies needed for birds along the Pacific Flyway; (d) water supplies necessary to preserve cold water pools; (e) the ability to generate clean, renewable hydropower; (f) recreational facilities and opportunities; and (g) groundwater supplies, contrary to the policies of the SGMA.	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 cited impacts are discussed in Staff Report Chapter 7, Environmental Analysis, and the corresponding sections of Section 13.7, Environmental Analysis.
260	12	Moreover, implementing the flow only approach would severely undermine California's ability to cope with droughts, as it would require significantly more water to be released during the spring. This leaves much less water available for carryover storage going into possible future droughts.	Carryover storage is a function of storage levels going into the irrigation season, and a function of water supply deliveries. The results presented in Chapter 6, Changes in Hydrology and Water Supply, of the draft Staff Report show that by reducing the reliance on Sacramento/Delta supplies, carryover over storage can be maintained while providing higher spring flows for fish and wildlife.
260	13	The DSR lacks substantial evidence to support the conclusion that the continued use of water transfers would mitigate these impacts to water supplies, because historic water transfers from the Sacramento River watershed would for the most part be eliminated under the flow only approach.	The impact conclusions made in the draft Staff Report do not rely on the implementation of other water management actions. Even if more detailed information on water transfers could be known, the additional information would not change these impact conclusions. The Staff Report recognizes that the availability of replacement supplies may be limited.

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			As discussed in Section 6.6.1.2, Water Transfers, it is difficult to predict with certainty how reduced Sacramento/Delta surface water supplies will affect water transfers. With new instream flow and cold water habitat requirements, overall supplies of water from the Sacramento/Delta will be reduced. This may result in less water available for transfer. At the same time, it could incentivize transfers as the value of transfer water increases, leading to transfers from lower value temporary crops to higher value municipal uses and permanent crops. Please see Common Response 6.3, Water Supply and Other Water Management Actions, for more discussion on water supply impacts and Common Response 8.1, Economics and Other Considerations, for more discussion on water transfers..
260	14	The DSR itself concludes that the proposed Plan amendments could exacerbate energy outages in extreme circumstances, as has occurred during recent drought years, leading to more frequent brownout conditions. (DSR at p. 7.8-29.)	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.
260	15	Similarly, the flow only approach would have significant impacts on cold water pools in upstream reservoirs that are needed to provide cold water releases for salmon spawning and rearing habitats. The DSR attempts to address this issue by proposing a new narrative, cold water habitat objective; however, it does not provide adequate details regarding how this proposed objective would be implemented. (DSR at pp. 5-20 – 5-22.) The most likely result of this implementation would be requirements to maintain larger minimum pools in these reservoirs, which would further reduce their water supply yields. These reductions would have significant additional water supply impacts beyond those described in the DSR. NCWA's more extensive set of specific and detailed comments regarding the inadequacy of the proposed Plan amendments and the DSR's related analysis are set forth in Appendix 2 [see ATT 2] of these comments. [Footnote 6: NCWA has also previously submitted extensive written comments and evidence to the State Water Board during this Bay-Delta Plan Update process regarding the legal, factual, and technical infirmities of new inflow objectives based upon unimpaired flow percentages.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the Staff Report includes a sufficiently detailed description of the cold water habitat objective to inform analyses and implementation measures. Please see Common Response 1.3, Revised Proposed Plan Amendments, for responses to comments on the cold water habitat objective. Please also Common Response 1.1, General Comments, on comments previously submitted on other documents.

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		These prior submittals are included in Appendices 3, 4, and 5 of these comments and are incorporated herein by reference.]	
260	16	The Healthy Rivers Agreements Alternative Would Most Effectively Implement the Reasonable Protection of Beneficial Uses in the Bay-Delta Watershed Current regulatory solutions are not working well for any beneficial uses that depend on water in the Sacramento Valley or the Bay-Delta. Moreover, further regulatory actions will generally take decades to implement. On the other hand, the California Water Action Plan [Footnote 7: The California Action Water Plan is available at https://resources.ca.gov/CNRALegacyFiles/docs/california_water_action_plan/2014_California_Water_Action_Plan.pdf (last accessed Jan. 17, 2024).] calls for a coordinated and collaborative approach that encourages negotiated voluntary agreements. (See California Water Action Plan at p. 18.) For the State of California to achieve success in the water arena, negotiated resolutions (not prescriptive actions) that implement functional flows and other measures are essential and will lead to more sustainable outcomes. The Healthy Rivers Agreements alternative should be adopted by the State Water Board as the best alternative for meeting the technical and legal objectives for the Bay-Delta Plan Update, and to fulfill the State Water Board's legal obligation to reasonably balance the multitude of factors and considerations when updating the Bay-Delta 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. Also see Common Response 1.2, Water Quality Control Planning Process, for information on the consideration of beneficial uses.
260	17	The Healthy Rivers Agreements Alternative Is Fully Implementable and Enforceable During the State Water Board's December 11, 2023 public hearing on the DSR, the water user parties to the Healthy Rivers Agreements provided a presentation emphasizing the following key benefits of the Healthy Rivers Agreements alternative: - The Agreements provide a clear path to the timely implementation of flows and habitat projects that promote species recovery, and the water user parties are committed to advancing the program, investing the time to collaborate with state and federal agencies, conservation partners, and tribes.	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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		- Over the past five years, the water user parties have been leading implementation of habitat improvements using the best available science; and these continued efforts will not be possible if the proposed Plan amendments are adopted and implemented. - The Agreements include secured funding from the water user parties themselves, as well as other state and federal funding sources. - The Agreements include enforcement agreements with the State Water Board under Government Code section 11415.60, which will state the specific obligations of parties' responsible implementation on each covered tributary, along with related regulatory enforcement mechanisms related to flows and habitat restoration. NCWA looks forward to additional public workshops and other related proceedings to highlight the benefits and superiority of the Healthy Rivers Agreements alternative.	
260	18	The Healthy Rivers Agreements Alternative Will Provide the Necessary Habitat Improvements in Concert with Flow Increases, and Early Habitat Implementation Is Already Underway During the State Water Board's December 1, 2023 public hearing on the DSR, the water user parties to the Healthy Rivers Agreements provided a presentation with detailed examples of how they have been working hard with state and federal agencies and conservation organizations to maintain momentum on project implementation to ensure that environmental targets in the Agreements are achievable during the term of the Agreements. In this regard, the water user parties described how since December 2018, 33 habitat projects have already been completed. These projects are being implemented via collaborative partnerships of local water management entities, conservation organizations, and state and federal fisheries and water management agencies. This collaboration is expediting habitat completion, and the collaborative partnerships are	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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		working through the “Cutting Green Tape” initiative to accelerate restoration.	
260	19	MBK’s Technical Analysis Confirms the Superiority of the Healthy Rivers Agreements Alternative MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information, and prepared a technical report setting forth MBK’s resulting analysis and findings. [Footnote 8: A copy of MBK’s technical report, entitled “Technical Review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (January 2024),” is included in Appendix 6 [ATT 6], and is incorporated herein by reference.] MBK’s key findings related to the superiority of the Healthy Rivers Agreements alternative are summarized as follows: - Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less impacts than the proposed Plan amendments. The Healthy Rivers Agreements alternative provides more salmonid benefits on the tributaries than the 55% unimpaired flow scenario, increases habitat to address limiting factors, and provides benefits across all water year types by making efficient use of existing flows and the flow assets contributed under the Healthy Rivers Agreements 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. Also see Common Response 3.1, Fish Protection, for instructions on interpreting the results of the habitat analyses.
260	20	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information, and prepared a technical report setting forth MBK’s resulting analysis and findings. [Footnote 8: A copy of MBK’s technical report, entitled “Technical Review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (January 2024),” is included in Appendix 6 [ATT 6], and is incorporated herein by reference.] MBK’s key findings related to the superiority of the Healthy Rivers Agreements alternative are summarized as follows:	Please see Common Response 1.1, General Comments, for responses to comments that either make a general comment or do not raise significant environmental issues.

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		- Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less impacts than the proposed Plan amendments. The Healthy Rivers Agreements alternative will have less impact on the ability to manage water temperature below reservoirs as compared to the 55% unimpaired flow scenario.	
260	21	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information, and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 8: A copy of MBK's technical report, entitled "Technical Review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (January 2024)," is included in Appendix 6 [ATT 6], and is incorporated herein by reference.] MBK's key findings related to the superiority of the Healthy Rivers Agreements alternative are summarized as follows: - Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less impacts than the proposed Plan amendments. The Healthy Rivers Agreements alternative will have less impact on the acres of rice land in production in the Sacramento River Basin than the 55% unimpaired flow scenario, and no impact on wildlife refuge water supplies, unlike the 55% unimpaired flow scenario.	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 refer to Common Response 7.1, General CEQA and Approach to the Analysis, for more information on CEQA analysis of an environmentally beneficial project.
260	22	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information, and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 8: A copy of MBK's technical report, entitled "Technical Review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (January 2024)," is included in Appendix 6 [ATT 6], and is incorporated herein by reference.] MBK's key findings related to the superiority of the Healthy Rivers Agreements alternative are summarized as follows:	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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		- Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less impacts than the proposed Plan amendments. The Healthy Rivers Agreements alternative better maintains the ability of reservoirs to provide multiple benefits as compared to the 55% unimpaired flow scenario.	
260	23	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information, and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 8: A copy of MBK's technical report, entitled "Technical Review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (January 2024)," is included in Appendix 6 [ATT 6], and is incorporated herein by reference.] MBK's key findings related to the superiority of the Healthy Rivers Agreements alternative are summarized as follows: - Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less impacts than the proposed Plan amendments. Water supply impacts of the Healthy Rivers Agreements alternative are manageable and can be mitigated. The water supply impacts of the 55% unimpaired flow scenario are more than 2 million acre-feet in dry and critical years or approximately 23% of the baseline water supply in these years.	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 refer to Common Response 7.24, Alternatives Analysis, for more information on CEQA analysis of an environmentally superior alternative.
260	24	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information, and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 8: A copy of MBK's technical report, entitled "Technical Review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (January 2024)," is included in Appendix 6 [ATT 6], and is incorporated herein by reference.] MBK's key findings related to the superiority of the Healthy Rivers Agreements alternative are summarized as follows:	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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		- Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less impacts than the proposed Plan amendments. Analysis contained in the DSR demonstrates that the Healthy Rivers Agreements alternative provides more benefits with less adverse impacts than the proposed Plan amendments.	
260	25	Separate modeling of the Healthy Rivers Agreements alternative, performed by DWR, wherein the regulatory requirements remain consistent with those in the DWR baseline, show significantly more Delta outflow under that alternative as compared to results set forth in the DSR. Analysis of the Healthy Rivers Agreements alternative benefits that are based on Delta outflow are underestimated in the DSR. MBK's review of the CalSim 3.0 modeling does not indicate there would be any new or more severe environmental impacts of the Healthy Rivers Agreements alternative than contained in the DSR. - SacWAM modeling of the Healthy Rivers Agreements alternative includes an assumption about changes in the regulatory requirements on Delta exports that is different from the assumption about such requirements contained in the SacWAM Baseline.	Staff Report Chapter 9, Proposed Voluntary Agreements, Section 9.5.2, VA Modeling Approach, describes several modeling scenarios for the VA proposal. The scenarios that were included to evaluate January through June Delta outflows provided a higher bookend of possible Delta outflows under the VAs in recognition that the VAs are intended to protect both VA flows as Delta outflows, and flows that may be provided by implementing the 2018 Lower San Joaquin River objectives. The two additional scenarios for the benefits analysis include a factor to eliminate differences between the 2008-2009 BiOps and 2019 BiOps conditions between DWR's CalSim II systems operations modeling and SacWAM. As such, State Water Board staff conducted, to the best of its ability, analysis to make modeling scenarios as comparable as possible. For additional information, please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for comments that raise issues with CalSim and SacWAM comparisons. Please also see Staff Report Chapter 9, Section 9.3.6, Points of Comparison for VA Flow Assets.
260	26	The DSR's Implication that a "Regulatory Implementation Pathway" Would Automatically Apply to Healthy Rivers Agreements Parties After Year 8 of the Healthy Rivers Agreements Is Inconsistent with the March 2022 VA MOU Term Sheet [Footnote 9: See DSR Appen. G, Memorandum of Understanding Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions (Mar. 29, 2022), at Appen. A, Term Sheet for Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan (Mar. 29, 2022) (pdf p. 127 et seq.), hereinafter referred to as the March 2022 VA MOU and Term Sheet.] and Should Be Corrected	The State Water Board was not a signatory to the MOU and is not bound by the terms. Please refer to Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific environmental effects of the project. Additionally, please refer to Common Response 1.2, Water Quality Control Planning Process and Common Response 1.3, Revised Proposed Plan Amendments.

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		The DSR states, in part: The proposed VAs are described and evaluated separately in Chapter 9, Proposed Voluntary Agreements. They include flow assets and habitat restoration measures on major tributaries to the Sacramento/Delta, including the Sacramento, Feather, American, Yuba, Mokelumne, and Tuolumne Rivers and Putah Creek, as well as contributions to Delta outflows and habitat restoration in the Delta and water purchases. The proposed VAs identify a regulatory implementation pathway that would exist in parallel with the VA implementation pathway. The Proposed Voluntary Agreements Alternative evaluated in this draft Staff Report identifies that the regulatory pathway would apply to non-VA regions and could apply in VA regions in the event the VAs are discontinued after the proposed 8-year term of the VAs, as described in Chapter 9. (DSR at pp. 5-1 – 5-2, emphasis added.) The DSR elsewhere states: The VA parties propose that if in year 8 the VAs are not expected to achieve the stated objectives, then either: 1) new agreements may be negotiated, or 2) the State Water Board would impose a regulatory implementation pathway. This regulatory implementation pathway also would apply to non-VA parties. (DSR at p. 7.2-15, emphasis added; see also DSR at pp. 1-3 – 1-4, 9-16.) These statements in the DSR imply that a regulatory implementation pathway (including potentially an unimpaired flow objective) would automatically be adopted and imposed by the State Water Board on Healthy Rivers Agreements parties following the expiration of the initial 8-year term of those agreements. This is contrary to the 2022 VA MOU and Term Sheet which confirm that there must be an additional regulatory process in accordance with the Porter- Cologne Water Quality Control Act (Porter-Cologne) prior to the adoption and imposition of an unimpaired flow objective on the VA parties. (See DSR Appen. G1 at Appen. A, March 2022 VA MOU Term Sheet, §§ 7.4, 7.4.B(iii), 7.4.F, 7.5.) These contrary statements in	

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		the DSR should be corrected to ensure consistency with the Healthy Rivers Agreements.	
260	27	Conclusion In deciding on changes to the Bay-Delta Plan, the State Water Board must consider whether the proposed changes would be reasonable, “considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.” (Wat. Code, § 13000.) The Healthy Rivers Agreements approach is the only alternative in the DSR that ensures those considerations are addressed and reasonably balanced. Moreover, given the lack of empirical support for an unimpaired flow regime, and the clear evidence of the impacts such a regime would impose on water users and the environment, the proposed Plan amendments based upon unimpaired flow amounts are neither reasonable, nor supported by substantial evidence. For all the reasons discussed in these comments, NCWA urges the State Water Board to adopt and advance the Healthy Rivers Agreements alternative as the program of implementation for the updated Bay-Delta Plan so that the update will be consistent with Porter-Cologne, the California Environmental Quality Act, the Delta Reform Act, and the best available science.	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. Additionally, please see Water Code section 13241 factors and Staff Report Chapter 3, Scientific Knowledge to Inform Fish and Wildlife Flow Recommendations, for an analysis of the benefits of the proposed Plan amendments.
260	29	[ATT 2] NCWA’s Specific Comments Regarding the Inadequacy and Deficiencies of the Proposed Plan Amendments and the Draft Staff Report’s Related Analysis General Summary of Legal Defects with the Inflow and Cold Water Habitat Objectives Under the Proposed Plan Amendments The State Water Resources Control Board (State Water Board) cannot lawfully adopt or implement the proposed Inflow and Cold Water Habitat Objectives (Objectives) under the proposed Plan amendments for at least the following reasons: The Objectives violate Porter-Cologne Water Quality Control Act (Porter-Cologne) because the Draft Staff Report’s (DSR)	Please see Chapter 3, Scientific Knowledge to Inform Fish and Wildlife flow Recommendations, which indicates how the revised proposed Plan amendments would protect beneficial uses, including benefits beyond temperature effects. As described in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, and Section 7.1, Introduction, Project Description, and Approach to Environmental Analysis, of the 2023 draft Staff Report, the proposed Plan amendments include a new narrative cold water objective for the Sacramento/Delta tributaries as a complementary measure to the inflow objective to further protect salmonids and other native species in the tributaries and to ensure that there are not redirected impacts on cold water habitat from the new inflow and Delta outflow objectives. For modeling purposes, reservoir

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		temperature modeling demonstrates that they do not reasonably protect any beneficial uses.	operation assumptions regarding deliveries versus carryover storage are incorporated into the model in various ways. Reservoir end-of-September storage was targeted to maintain cold water throughout the year. For reservoirs with documented or clear historical storage-temperature relationships, storage thresholds sufficient to maintain cool release temperatures were incorporated into the modeling. As described in Section 7.6.2 and 13.7.6.2, Aquatic Biological Resources, the water temperature simulations show both increases and decreases in water temperature. Increases in water temperature that might affect fish are expected to be reduced with implementation of the cold water habitat objective. Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding water temperature modeling and implementation of the cold water habitat objective. 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.
260	30	[ATT 2] NCWA's Specific Comments Regarding the Inadequacy and Deficiencies of the Proposed Plan Amendments and the Draft Staff Report's Related Analysis General Summary of Legal Defects with the Inflow and Cold Water Habitat Objectives Under the Proposed Plan Amendments The State Water Resources Control Board (State Water Board) cannot lawfully adopt or implement the proposed Inflow and Cold Water Habitat Objectives (Objectives) under the proposed Plan amendments for at least the following reasons: The Objectives violate Article X, section 2 of the California Constitution because the State Water Board cannot demonstrate that the Objectives' water demands would be reasonably related to the requirements of any beneficial uses of water.	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board's authority to prevent waste and unreasonable use under Article X, Section 2 of the California Constitution. Please also see the responses to comments 260-49 through 260-52.

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260	31	The DSR does not comply with California Environmental Quality Act (CEQA) because, among other substantial errors, it does not state an adequate project description and, as State Water Board staff have acknowledged, it does not analyze the actual impacts of the Objectives and their foreseeable implementation. The DSR's alternatives analysis related to the Objectives and the modular alternatives also fails to comply with CEQA.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description and the level and scope of the analysis. See Common Response 7.24, Alternatives Analysis, regarding the modular alternatives.
260	32	The DSR inadequately analyzes the Objectives' impacts on agriculture in the Sacramento River watershed and especially its regionally dominant rice industry.	The Staff Report uses a reasonable and conservative approach to evaluating the potential agricultural impacts and agricultural economic effects of the flow scenarios, including to rice production. The analysis of potential changes in crop acreage presented in Section 7.4, Agriculture and Forest Resources, and potential changes in crop revenue presented in Chapter 8, Economic Analysis and Other Considerations, include 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. Section 7.4.2, Environmental Setting, discusses that within the Sacramento Valley, rice is the leading crop in terms of acreage. Rice is strongly associated with the Sacramento River watershed. The SWAP results presented in Staff Report Section 7.4, Agriculture and Forest Resources, and Chapter 8, Economic Analysis and Other Considerations, estimate that if groundwater is not used to offset Sacramento/Delta surface water supply reductions, crop acres primarily decline in alfalfa and pasture and rice in the Sacramento/Delta watershed. The effects on rice production are adequately evaluated and disclosed in the Staff Report, and the presentation of SWAP model results at the Sacramento/Delta watershed level within Section 7.4 and Chapter 8 sufficiently captures the potential impacts and economic effects. In addition, Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results, presents SWAP modeling results at a finer level of detail, and provides results for the SWAP production regions within the Sacramento/Delta and San Joaquin Valley. Please see Common Response 7.4, Agricultural Resources, and

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			Common Response 8.1, Economic Analysis and Other Considerations, for additional information on the SWAP model, agricultural impacts, and agricultural economic effects.
260	33	[ATT 2] NCWA's Specific Comments Regarding the Inadequacy and Deficiencies of the Proposed Plan Amendments and the Draft Staff Report's Related Analysis I. General Summary of Legal Defects with the Inflow and Cold Water Habitat Objectives Under the Proposed Plan Amendments The State Water Resources Control Board (State Water Board) cannot lawfully adopt or implement the proposed Inflow and Cold Water Habitat Objectives (Objectives) under the proposed Plan amendments for at least the following reasons: The DSR's hydrological, environmental, and economic analysis of the impacts of the Objectives is inadequate because it does not address or disclose those impacts in multi-year droughts.	The 2023 draft Staff Report accounts for multi-year droughts in the selected hydrologic period of record used for SacWAM modeling (1923-2021). While the 1923 to 2021 hydrologic period captures extensive year-to-year variability which is characteristic of California's climate and often extreme hydrology that is characteristic of the Bay-Delta, it also captures multi-year droughts where "dry" or "critically dry" years are experienced in sequence. Within the 1923-2021 time period, a "dry" and "critical" year sequence was experienced from 2020 to 2021, three very dry consecutive years were experienced between 2013 and 2015, and three other drought periods occurred from 1929-1934, 1976-1977, and 1987-1992. By including these periods in the modeling used for SacWAM presented in Chapter 6, Changes in Hydrology and Water Supply, and to ultimately assess impacts in Chapter 7, Environmental Analysis, the Staff Report considers associated impacts from multi-year droughts within its analysis. Please see Common Response 4.2, Drought and Climate Change, regarding the impact analysis in multi-year droughts. Please also see Common Response 8.1, Economic Analysis and Other Considerations, regarding the economic effects of multi-year drought.
260	34	[ATT 2] The DSR Presents No Clear Rules or Methods for Implementing the Inflow and Cold Water Habitat Objectives The DSR, and the State Water Board staff's comments to date, have indicated that: implementation of the proposed Inflow and Cold Water Habitat Objectives will be subject to extensive future decisions and "flexible" exercises of discretion; and (b) the DSR's analysis of the effects of those proposed Objectives reflects only one possible scenario, and actual implementation could vary significantly from what is presented in the DSR.	The Staff Report fully evaluates the range of actions that could occur due to implementation of the inflow and cold water habitat objectives, consistent with applicable legal requirements. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for more information on the CEQA analysis.
260	35	[ATT 2] At the most basic level, the DSR states that the State Water Board's proposed project includes a program of implementation, but provides little definition of that program. Chapter 5 is entitled "Proposed Changes to the Bay-Delta Plan for	The program of implementation was described in sufficient detail for the purposes of the analysis in the 2023 draft Staff Report and drafts were subsequently released for public review and comment in October 2024, July 2025, and December 2025.

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		the Sacramento/Delta” and states that the implementation of the Inflow and Cold Water Habitat Objectives would be “integrated”: The new inflow objective would be integrated with the cold water habitat protection and Delta outflow objectives for the proposed Plan amendments to provide comprehensive protection of the Bay-Delta watershed ecosystem. (DSR, p. 5-215; see also id. at p. 5-23 [inflows and cold water habitat protection are “intricately linked” and therefore “the cold water habitat implementation actions are proposed to be integrated with the inflow implementation actions”].) Chapter 5, however, provides only vague generalities about how this integration would occur and indicates that the State Water Board’s implementation would depend on undefined tributary-specific measures: The proposed changes to the program of implementation include a description of actions to implement the proposed new and modified objectives and to maintain the existing narrative salmon objective. Implementation includes recommendations for physical habitat restoration and other complementary ecosystem measures in conjunction with new and modified objectives. The proposed changes to the program of implementation also describe accounting, monitoring, reporting, assessment, and adaptive management provisions for compliance and effectiveness; provisions for public safety and drought; measures to reduce or avoid redirected impacts; and complementary measures to protect fish and wildlife.... (DSR, pp. 5-3 – 5-4.) Specific implementation measures [under the Cold Water Habitat Objective] would depend on the circumstances in individual tributaries, including structural, operational, and hydrological characteristics. Cold water management actions could include a variety of different measures depending on these circumstances, including management of reservoir storages and releases and associated TCDs, [Footnote 1: A “TCD” is a temperature control device. (DSR, pp. lxviii, 5-21.)] efforts to	Please see Common Response 1.3, Revised Proposed Plan Amendments, for information on the regulatory pathway.

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		establish cold water refugia like riparian revegetation, passage above reservoirs or other impediments to allow access to cold water refugia, and other measures. (DSR, p. 5-23.) The DSR does not describe any of these specific types of implementation measures.	
260	36	[ATT 2] Likewise, Chapter 7.1, entitled “Introduction, Project Description, and Approach to Environmental Analysis,” does not provide specifics about how the proposed Inflow and Cold Water Habitat Objectives would be implemented. Chapter 7.1 provides a general statement that, “[t]he new inflow objective would be integrated with the cold water habitat protection and Delta outflow objectives ... to provide comprehensive protection of the Bay-Delta watershed ecosystem.” (DSR, p. 7.1-7.) However, Chapter 7.1 does not describe how the objectives’ integration would be accomplished. Instead, Chapter 7.1 states: “[t]he underlying 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.” (DSR, p. 7.1-5.) The State Water Board, however, has deferred the preparation of the program of implementation for the proposed Inflow and Cold Water Habitat Objectives, and the DSR does not include any objective criteria or standards to define how the proposed Inflow and Cold Water Habitat Objectives would be implemented in a coordinated manner. Rather, implementation of the proposed Inflow Objective is left to be defined by a number of broad discretionary decisions that the DSR reserves for the State Water Board and its staff to make in the future.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description. Also see Common Response 1.3, Revised Proposed Plan Amendments, regarding the revised proposed Plan amendments and measures related to inflow and cold water habitat.
260	37	[ATT 2] A. Under the Proposed Inflow Objective, Minimum Streamflow Could Vary in a Range of 20% of Unimpaired Flow, Resulting in an Uncertainty of Millions of Acre-Feet of Water Every Year The Inflow Objective contains only one statement that qualifies as an objective criterion or standard: “[m]aintain inflows from the Sacramento/Delta tributaries at 55% of unimpaired flow, within an allowed adaptive range between 45 and 65% of	Section 13.3.2, Water Quality Objectives for Fish and Wildlife Uses, describes the proposed new objectives of the revised proposed Plan amendments. The objectives are based on the proposed new water quality objectives described in Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, and Chapter 9, Proposed Voluntary Agreements, with refinements based on public comments received throughout the planning process. The intent of the proposed range in unimpaired flow is to provide flexibility for

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		unimpaired flow.” (DSR, p. 5-17.) This statement does not provide sufficient detail to make the proposed Inflow Objective understandable. The stated range of unimpaired flow, between 45 and 65%, itself creates an uncertainty of millions of acre-feet of water every year. The DSR states: Total average annual unimpaired (without diversions and dams under current channel and infrastructure conditions) outflows from the Bay-Delta watershed are about 28.5 million acre-feet (MAF).... (DSR, p. 1-9.) The Sacramento River has an average annual unimpaired flow of 21 MAF (based on values for water years 1922-2014).... (DSR, p. 2-4.) [T]he annual Delta outflow has a large range, from under 5 MAF/yr to over 50 MAF/yr, with an average of about 15 MAF/yr.... (DSR, p. 2-103.) Under these estimates of Sacramento River inflow to the Delta and Delta outflow, the uncertainty involved in implementing the proposed Inflow Objective within its stated range of 20% of unimpaired flow encompasses millions of acre-feet. [Footnote 2: The DSR actually suggests that it is not currently possible to know what the Delta watershed’s unimpaired flows actually are and that the State Water Board will need to study the matter further. It states, under the heading “Monitoring and Information Needs to Implement Proposed Plan Amendments,” the following: Methods would be needed to determine required streamflows under the proposed Plan amendments for each tributary and for Delta outflow purposes. The proposed program of implementation would include provisions for development of methods to determine unimpaired flow and required flow levels for applicable tributaries and the Delta.... (DSR, p. 5-56.) If the	adaptive implementation. Analysis of benefits and impacts for the full range of unimpaired flows is included in the Staff Report. Please see Common Response 1.3, Revised Proposed Plan Amendments, for additional discussion on the water quality objectives for fish and wildlife and the regulatory pathway. Please also see Common Response 1.2, Water Quality Control Planning Process, for a discussion on numeric vs. narrative water quality objectives. 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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		State Water Board cannot currently determine the Delta watershed's unimpaired flows, it would appear to be impossible to understand the Inflow Objective's actual demands and effects at this time.] In contrast, the DSR estimates that average annual "outflows from the Bay-Delta watershed are about 28.5 million acre-feet [MAF]" (DSR, p. 1-9), which suggests that the uncertainty involved with the proposed Inflow Objective's numeric 20% range would average 5.7 MAF/year ($28.5 \times 0.2 = 5.7$). For perspective, "Shasta Reservoir [on the Sacramento River] is the largest reservoir in California, with a capacity of 4.55 MAF" (DSR, p. 2-20.) The average uncertainty involved in just the Inflow Objective's 20% range thus exceeds the full storage capacity of the state's largest reservoir. In years when Delta outflow approaches the estimated maximum of 50 MAF, the 20% range could encompass 10 MAF. This volume is approximately equal to the cumulative total capacity of the largest reservoirs on the Sacramento Valley's largest rivers. [Footnote 3: According to DSR's Table 7.12.1-4, "Sacramento River and Tributary Reservoirs," Shasta Reservoir's storage capacity on the Sacramento River is 4,552 TAF (thousand acre-feet); Oroville Reservoir's storage capacity on the Feather River is 3,358 TAF; New Bullards Bar Reservoir's storage capacity on the North Yuba River is 970 TAF; and Folsom Reservoir's storage capacity on the American River is 977 TAF. (DSR, p. 7.12.1-47.) These reservoirs' total combined capacity is 10,037 TAF (approximately 10 MAF).]	
260	38	[ATT 2] B. The Numerous and Broad Proposed Reservations of Discretion to the State Water Board and Its Staff Make It Impossible to Understand How Integrated Implementation of the Proposed Inflow and Cold Water Habitat Objectives Would Occur The DSR discusses "default implementation" and "voluntary implementation" structures for the proposed Inflow and the Cold Water Habitat Objectives, as well as generalized implementation measures. The DSR proposes to reserve to the State Water Board and its staff broad discretion to adopt, approve, or modify water users' measures to implement the proposed Inflow and Cold Water Habitat Objectives. Some proposed implementation measures appear to apply to	Implementation of the inflow and cold water habitat objectives were described in sufficient detail in the Staff Report for the purposes of the analysis. For the time period used to calculate the block of water that could be shaped (i.e., sculpted), Section 5.4.2.4, Implementation, in the 2023 draft Staff Report identifies that it would be an annual basis. Regarding the counting of hydropower releases for flow shaping, the program of implementation would not prohibit all hydropower releases from counting toward achieving the total required volume of water within the water year. Instead, it would prohibit releases for flood control purposes, hydropower, or other uncontrolled flows from decreasing the total volume of water provided within a water year below what would have resulted from meeting the applicable unimpaired flow percentage on a 7-day running

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		both the “default” and “voluntary” approaches. Specifically, the DSR states that reservoir owners would be subject to long-term and annual discretionary decisions by the State Water Board’s Executive Director. First, “reservoir owners/operators would be required to develop a long-term strategy” to improve “the protection of cold water habitat, in coordination with State Water Board and fisheries agency staff and other appropriate entities as necessary,” based on assessments of “the effectiveness of cold water habitat protection measures ... and needed improvements....” (DSR, p. 5-23.) The DSR then states: The strategies would be subject to approval and modification through the voluntary implementation planning process or by the Executive Director of the State Water Board through the default process. (Ibid.) Second, the DSR states that reservoir owners would have to submit “annual operations plans ... each year, in coordination with the State Water Board and fisheries agencies,” along with the “technical basis” of certain plan provisions; that those plans would need to contain several mandatory elements; and that “[t]he annual plans would be subject to approval and potential modification by the Executive Director.” (DSR, p. 5-24.) In addition to the above generally applicable instances of the State Water Board staff’s proposed discretion, both the “voluntary” and “default” implementation approaches would be subject to more specific exercises of State Water Board staff discretion. The “voluntary” approach would be based on water users’ proposals for “voluntary implementation plans,” but actual management under such plans would be subject to many exercises of undefined discretion by the State Water Board or its staff, as follows: - In developing a plan, a water user would have to consult with the California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and “other appropriate entities” and obtain CDFW’s agreement under undefined standards or be	average. The flow sculpting/shaping provisions were described and analyzed in sufficient detail for the purposes of the analysis. Draft Staff Report Section 6.2.2, Unimpaired Flow Scenario Assumptions, describes this: because flows may be tailored to the needs of each tributary, every exact permutation of flow is not known; however, for the purpose of the environmental analysis, it was assumed that each tributary provides its proportional share of the numeric inflow requirement so that the range of flow scenarios is sufficient to illustrate the potential changes that may result from the proposed Plan amendments. Section 7.21, Habitat Restoration and Other Ecosystem Projects, evaluates impacts from physical habitat restoration and other ecosystem projects such as fish passage projects or other physical solutions provided as options for local cooperative solutions and compliance with the cold water habitat objective. The flexibilities provided for adaptive implementation are confined by the parameters stated in the Plan itself. If two or more tributaries work together to meet the numeric flow requirements downstream, each tributary must contain sufficient flow to meet the narrative objective. These same constraints would apply to adaptive implementation directed by the State Water Board. Please see Common Response 1.3, Revised Proposed Plan Amendments, for responses to comments on the regulatory pathway implementation of the cold water habitat and inflow objectives, and State Water Board oversight.

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		subject to an undefined “public process” before the State Water Board on the parts of the proposed plan “that were not agreeable to CDFW.” (DSR, p. 5-10.) - Those plans would have to include, among other elements, provisions for: (1) further undefined adaptive management coordinated with the State Water Board, CDFW and “other appropriate entities”; (2) integration with the implementation of the Sustainable Groundwater Management Act (SGMA) to ensure no redirected impacts to groundwater, groundwater-dependent ecosystems, or streamflows; and (3) protection of aquatic beneficial uses during droughts, apparently even beyond a water user’s compliance with the proposed Inflow Objective’s requirements for the bypass of between 45 to 65% of unimpaired flow. (DSR, p. 5-12.) - As approved by either the State Water Board’s Executive Director or the State Water Board itself under undefined standards, the plans could propose to “sculpt” flows on “a seasonal basis” as long as the “sculpted” block is equivalent to the total of a 7-day running average of the applicable unimpaired flow percentage, although, given that the proposed Inflow Objective would apply year-round, it is unclear over what “season” that total would be calculated. (DSR, p. 5-20.) [Footnote 4: In calculating the allowable “sculpted” block equivalent to the 7-day running average, the DSR states that some types of flows could not be counted, including “hydropower releases.” (DSR, p. 5-20.) Because water is often released from a reservoir to both generate hydroelectricity and serve consumptive use, it is impossible to determine how the DSR’s proposed limits on flow releases that could be treated as allowable “sculpting” would be applied in the hydropower context.] - Consistent with the above-referenced general implementation measures, even under approved plans, water users would be required to submit annual operations plans that “would be subject to approval and potential modification by the [State Water Board’s] Executive Director,” unless the State Water Board had approved an “alternate” annual operations plan. (DSR, p. 5-25.)	

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260	39	[ATT 2] The “default” implementation approach would be more mandatory than the “voluntary” approach but would involve the State Water Board and its staff exercising similar levels of undefined discretion, as described in the DSR. Under the “default” approach: - The State Water Board “would be responsible for directing adaptive management and flexibility if appropriate and necessary,” with consultation with “the federal fish agencies” and either “concurrence by CDFW” or a public process to address points on which CDFW does not concur. (DSR, pp. 5-10 – 5-11.) - Water users would need to “provide 55 percent unimpaired flow, based on a minimum 7-day running average of flows, measured at the confluence of the tributary or other locations determined by the [State Water Board’s] Executive Director,” possibly with “modifications for temperature control.” (DSR, pp. 5-18 – 5-19.) - “[R]eservoir operators would be required to develop a cold water habitat management strategy within 12 months from adoption of the Plan amendments for approval by the [State Water Board’s] Executive Director,” although the Executive Director also could require that those plans be “modified or refined ... prior to or following approval as needed due to new information or changed circumstances.” (DSR, p. 5-24.) - Reservoir operators also would need to submit to the State Water Board “annual plans ... by no later than April 1, or another date approved by the Executive Director, ... for approval by the Executive Director and possible modification.” (DSR, p. 5-24.)	It is unclear what the commenter means by “more mandatory.” Please see the response to comment 260-38.
260	40	[ATT 2] According to the DSR, under both the “voluntary” and “default” approaches for implementing the proposed Inflow and Cold Water Habitat Objectives, water users would be required to make various filings with the State Water Board under a variety of timelines, all of which the Executive Director would have undefined discretion to alter in various ways. (DSR, pp. 5-10 – 5-13, 5-18 – 5-19, 5-24.) Thus, under the proposed Inflow and Cold Water Habitat	Please see responses to comments 260-38 and 260-39.

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		Objectives as described in the DSR, the State Water Board and its staff would continue to exercise broad, undefined, and ongoing discretion to decide how those objectives would be implemented throughout the Bay-Delta watershed. Because these future discretionary decisions are not constrained by any performance standards or objective criteria, they significantly compound the uncertainty about how the proposed Objectives would be implemented. In short, the proposed implementation of these Objectives as described in the DSR is merely conceptual, at best.	
260	41	[ATT 2] C. Water-Right Priorities May Be Integral to the Proposed Inflow and Cold Water Habitat Objectives' Implementation, But It Is Unknown How the State Water Board Would Apply Them Although the DSR states several times that standard water right priorities would govern the allocation of responsibility among water users under the proposed Inflow and Cold Water Habitat Objectives (DSR, pp. 5-13 – 5-14, 5-17 – 5-18), it also suggests that responsibilities could be allocated according to other considerations. Specifically, the DSR states: - “Compliance points would be established at the confluence of tributaries with the Sacramento River” and the confluence with the Delta for other rivers. Imposing these compliance measuring points is intended to test whether each tributary is meeting its contribution to the Delta, which would have the effect of shifting some responsibility for Delta conditions away from the Central Valley Project (CVP) and the State Water Project (SWP). (DSR, pp. 5-17, 5-57.) [Footnote 5: The DSR states, at page 5-57, “[t]he proposed Plan amendments would broaden the responsibility for meeting the proposed Plan amendments beyond the SWP and CVP based on water right priorities.” The existing compliance points under Decision No. 1641 apply only to the SWP and CVP water rights.] - “Compliance locations could be refined to account for gaging issues, including backwater effects and other factors, and additional compliance points could be identified to ensure that the inflow objectives are achieved. The [State Water Board's] Executive Director would have authority to determine required	The inflow objective applies throughout the Sacramento/Delta watershed to protect water quality in upstream reaches and contribute to Delta outflow. All water rights under the regulatory pathway are subject to the numeric inflow requirements, except those determined to have a de minimis effect on inflows. Initial compliance points where the numeric inflow requirements apply include the confluence of Sacramento/Delta tributaries with the Sacramento River; at the confluence with the Legal Delta for the Cosumnes, Calaveras, and Mokelumne Rivers; on the mainstem of the Sacramento River at the confluence with the Delta; and, at upstream locations on Sacramento/Delta tributaries at the confluence of every major fork, branch, and tributary of the tributaries subject to the inflow requirements unless determined through the implementation process that they are not needed or appropriate. Compliance points are the locations that will be used to define the percent of unimpaired flow, determine the required contributions upstream of the compliance point location, inform assessment of compliance with the instream flow requirement, and determine whether any refinements to implementation of the inflow requirements are needed, including refinements to the implementation methodology. Updates to these compliance locations may be approved by the Executive Director as part of the process to develop and update the implementation methodology after opportunity for public review and comment or through the Bay-Delta Plan annual and periodic review processes.

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		compliance locations with input from appropriate entities, including the fisheries agencies, DWR, Reclamation, U.S. Geological Survey (USGS), water users, and others as appropriate.” (DSR, pp. 5-17 – 5-18.)	
260	42	[ATT 2] Neither the DSR nor its many appendices clarify how water right priorities would be implemented for the Objectives. During the November 2, 2023 workshop on the DSR’s modeling, Scott Ligare of the State Water Board staff explained that the water right priorities used in the modeling are not set forth in the DSR, but rather in section 7.13 of the “SacWAM documentation” report, which is not part of the DSR but is available on the State Water Board’s website. (November 2, 2023 State Water Board staff workshop video, time marks 2:06:45-2:13:45, 2:24:30-2:25:30.) [Footnote 6: As of December 18, 2023, that “draft” documentation appeared to be available on the State Water Board’s website at https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/sacwam/. It is dated September 28, 2023, the same date that the State Water Board released the DSR. It violates CEQA, however, to bury information as critical as the supposed “water right priorities” by which responsibility for the proposed Inflow and Cold Water Habitat Objectives would be allocated in other documents that cannot even be identified without State Water Board staff assistance. (See <i>Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova</i> (2007) 40 Cal.4th 412, 442 (Vineyard Area Citizens).)] Within section 7.13 of the SacWAM report, Table 7-62 indicates that the SacWAM model applies 99 different modeling priorities to allocate water among various water demands, but those do not reflect existing water right priorities. Neither the SacWAM documentation report nor the DSR appears to contain any explanation of how those 99 variables, and their ranking, relate to existing water right priorities.	The draft Staff Report is clear that generally flow requirements would be implemented in accordance with water right priorities. As stated in Section 5.4.2.4, Implementation, all water users would be subject to the numeric inflow requirements following the rule of water right priority, unless adjustments are needed to conform to the narrative objectives or exceptions apply. It is further explained in Section 5.4.1.1, Processes and Requirements for Voluntary Implementation Plans, that immediately upon adoption of the proposed Plan amendments, the State Water Board would undertake and expedite efforts to develop initial implementation tools followed by refined tools as needed for determining streamflows and accounting methodologies to administer the water right priority system to achieve the new flow objectives. The implementation methodology will be developed through an additional public process with opportunity for water right holders to provide input. Please see Section 2.7, Existing and Future Water Rights in the Sacramento/Delta Watershed, for information on water right priorities in the Sacramento/Delta watershed related to the Bay-Delta Plan. Table 7-62 of the SacWAM Documentation (available on the State Water Board’s Bay-Delta webpage) provides the water allocation priorities used in SacWAM. As described in Section A1.1.6, Model Limitations, of Appendix A1, Sacramento Water Allocation Model Methods and Results, SacWAM includes generalized grouping of water rights and the relative priority between types of water users, however it does not include precise priority dates for each individual water right in the Sacramento/Delta watershed, nor is SacWAM required to possess that level of granularity in order to support the Staff Report’s analysis. 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.
260	43	[ATT 2] In summary, the combination of at least three aspects of the DSR make it impossible to understand how responsibility for	Please see responses to comments 260-41 and 260-42 regarding the 2023 draft Staff Report’s discussion of water right priorities

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		the proposed Inflow and Cold Water Habitat Objectives actually would be allocated, or if they are even lawful (i.e., if implementation is inconsistent with existing water right priorities). First, the DSR states that water right priorities would govern, but then also states that those priorities would be applied by tributary. Second, the DSR proposes that State Water Board staff would have broad discretion to vary where water users comply with those proposed Objectives. Third, the SacWAM model's priorities appear to bear no relationship to water right priorities. Due to the combination of these three factors, the DSR does not contain an understandable explanation of how the proposed Inflow and the Cold Water Habitat Objectives would be implemented. Moreover, it appears that these alternatives may be legally infeasible for failure to respect water right priorities, and other reasons, as described below.	and allocation of responsibility to meet the inflow and cold water habitat objectives.
260	44	[ATT 2] The Proposed Inflow and Cold Water Habitat Objectives Are Legally Defective The Proposed Inflow and Cold Water Habitat Objectives Violate Porter- Cologne Because They Present No Clear Rules to Govern Their Implementation and Are So Uncertain That It Is Impossible to Know Whether They Would Reasonably Protect Any Beneficial Uses The basic purpose of a water quality objective is to “ensure the reasonable protection of beneficial uses and the prevention of nuisance...” (Wat. Code, § 13241.) Water quality objectives that do not satisfy this basic purpose violate Porter-Cologne. (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 115-116, 119-120 (Racanelli) [Bay- Delta water objectives violated Porter-Cologne because they reflected pre-CVP/SWP conditions, not reasonable protection of beneficial uses].) In adopting a water quality objective, the State Water Board must demonstrate “a rational connection” between the relevant factors, “the choice made, and the purposes of the enabling statute.” (Id. At p. 113.) Thus, to support its adoption of the Inflow and Cold Water Habitat Objectives, the State Water Board must show a rational connection between these objectives and the reasonable protection of beneficial uses.	Please see the response to comment 260-29. In addition, please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the State Water Board's inflow and cold water habitat objectives. See also Common Response 1.1, General Comments, for a discussion of the scope of the Staff Report and Plan Flexibility, and 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 through the water quality control planning process.

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		Based on the DSR, the State Water Board cannot satisfy this showing. As discussed above, implementation of the proposed Objectives is uncertain and subject to ongoing and undefined exercises of future discretion by the State Water Board and its staff. Given these facts, it is not possible to demonstrate that the proposed Objectives actually would protect beneficial uses.	
260	45	[ATT 2] Furthermore, the DSR itself admits that the proposed Objectives' implementation likely would cause a "potentially significant" impact on "native fish species" by adversely affecting water temperatures. In fact, the DSR proposes measures to mitigate the significant impacts of the proposed Objectives on those fish—the very beneficial uses the proposed Objectives purport to protect. (DSR, pp. 7.6.2-56, 7.6.2-93 – 7.6.2-94, 7.6.2-103 – 7.6.2-105; see also DSR, p. 5-19 [noting potential need to "refine" implementation of proposed Objectives to "avoid[] redirected impacts" 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. As described in Sections 7.6.2 and 13.7.6.2, Aquatic Biological Resources, the water temperature simulations show both increases and decreases in water temperature. Increases in water temperature that might affect fish are expected to be reduced with full implementation of the cold water habitat objective. Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding water temperature modeling and full implementation of the cold water habitat objective.
260	46	[ATT 2] The appendices to the DSR include water temperature modeling results confirming that the proposed Inflow and Cold Water Habitat Objectives' implementation would adversely affect water temperatures for native fish. Those appendices show that, at 55% of unimpaired flow, implementation of the proposed Objectives could dramatically increase the amount of time that lower American River water temperatures exceed temperature standards for juvenile steelhead, which are protected under the federal Endangered Species Act. (DSR, p. 7.6.2-12; DSR Appen. A6, Tables A6-208, A6-210 – A6-213.) Although the DSR contains no quantitative temperature analyses for streams other than the American, Feather and Sacramento Rivers, the DSR states that the temperature analyses for those rivers are "indicative of changes in stream temperatures that may occur downstream of other rim reservoirs." (DSR, pp. 7.12.1-66 – 7.12.1-67; see also DSR, p. 7.6.2-88.) In other words, while the DSR only quantitatively analyzes the effect of water temperatures for native fish of the proposed Inflow and Cold Water Habitat Objectives' implementation on three rivers, that analysis shows potentially significant impacts on those fish and is "indicative" of	The quoted text mentions that temperature effects downstream of the Sacramento, Feather, and American Rivers could be indicative of temperature effects downstream of other rim reservoirs in the Sacramento/Delta. They do not represent temperature effects "throughout the entire Bay-Delta watershed." A temperature model has been developed for the Yuba River as described in Appendix H1b, Water Temperature Modeling and Fish Assessment for the Sacramento, Feather, American, and Yuba Rivers. The impact assessment in the Staff Report focuses on changes in water temperature conditions for fish relative to baseline conditions. As discussed in Section 7.6.2, Aquatic Biological Resources, most tributaries with reservoirs have existing temperature management concerns at certain times under baseline conditions. These existing temperature issues do not represent a temperature impact, although the cold water habitat objective is intended to remedy that over time. Note also that the analysis shows that the flow scenarios improve temperatures in many instances primarily during the spring when flows are

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		potential temperature impacts throughout the entire Bay-Delta watershed. Thus, the modeling that has been performed indicates the proposed Inflow Objective will have negative impacts on sensitive native fish, protection of which is a beneficial use under Porter-Cologne and is contemplated by the proposed Cold Water Habitat Objective.	increased relative to baseline. As presented in Appendix H1b for example, on the American River at Watt, the scenarios decrease April temperature by upwards of 2 degrees, and at times decrease May and June extreme temperatures as well. There are also tables for each modeled tributary that shows the frequency of favorable changes for each scenario, listed by fish species and life-stage. Because implementation of the cold water habitat objective is complex, methodology for individual tributary implementation 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 and flexibility included in the revised proposed Plan amendments related to long-term temperature management strategy and refinement of the carryover storage target ranges.
260	47	[ATT 2] The enormous amount of uncertainty in how the proposed Inflow and Cold Water Habitat Objectives would be implemented contrasts sharply with how narrative water quality objectives are implemented through National Pollutant Discharge Elimination System (NPDES) permits for wastewater discharges. While narrative objectives can present implementation challenges generally, in the NPDES context, those challenges are limited by the fact that the U.S. Environmental Protection Agency has promulgated detailed regulations that state how narrative objectives are to be translated into permit-specific terms. (Communities for a Better Environment v. State Water Resources Control Bd. (2003) 109 Cal.App.4th 1089, 1103-1107 [discussing 40 C.F.R. § 122.44(d)(1)(vi)].) The DSR provides no such defined implementation rules for the proposed Inflow and Cold Water Habitat Objectives. The DSR instead effectively proposes to defer all relevant decision-making about how to implement those objectives—which themselves could set mandatory streamflows across a range of 10 MAF per year—to the exercise of extensive and ongoing discretion by the State Water Board and its staff, without any standards to constrain or define their decisions.	Please see Common Response 1.2, Water Quality Control Planning Process, for information on the state and federal laws governing the water quality control planning process. Chapter 5, Proposed Changes to the Bay-Delta plan for the Sacramento/Delta, of the 2023 draft Staff Report includes detailed sections on implementation of the inflow and cold water habitat objectives that provide the information necessary for the Staff Report analyses. Please see Common Response 1.3, Revised Proposed Plan Amendments, for responses to comments on the cold water habitat objective, flow shaping provisions, and State Water Board oversight during implementation.
260	48	[ATT 2] Given that the DSR proposes that implementation of these two proposed Objectives include such boundless discretion—rather than any well-defined rules like those that	Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the State Water Board's inflow and cold water habitat objectives.

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		govern NPDES permits—those proposed Objectives cannot comply with Porter-Cologne’s basic requirements. Under these circumstances, it is impossible to determine that the proposed Objectives would “reasonably protect” any beneficial uses. The State Water Board therefore cannot make the necessary “rational connection” between those proposed Objectives and Porter-Cologne’s legal standards. Other factors, such as the State Water Board’s apparent desire to have water users other than the Bureau of Reclamation (Reclamation) and the Department of Water Resources (DWR) share in the responsibility for Bay-Delta conditions (DSR, p. 5-57), cannot suffice. (See Racanelli, supra, 182 Cal.App.3d at pp. 115-116, 119-120; McBail & Co. v. Solano County Local Agency Formation Com. (1998) 62 Cal.App.4th 1223, 1230-1231 [LAFCO’s denial of annexation because annexation would not have enhanced local air base is invalid because of reliance on factor outside of governing statute].) The State Water Board therefore cannot adopt the proposed Inflow and Cold Water Habitat Objectives under Porter- Cologne.	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the Board’s water quality control planning authorities and duties pursuant to the Porter-Cologne Water Quality Control Act and the consideration of beneficial uses.
260	49	[ATT 2] B. The Proposed Inflow and Cold Water Habitat Objectives Cannot Be Adopted or Implemented Consistent with Article X, Section 2 of the California Constitution As its explicit text indicates, Article X, section 2 requires that there be a reasonable relationship between a beneficial use and the water that it demands. (See Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist. (1935) 3 Cal.2d 489, 523-525, 547 (Tulare); Cal. Const., art. X, § 2. [Footnote 7: This section states: The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. (Emphasis added.)] Just as this rule applies to consumptive water uses, it applies with equal force to environmental uses: “[a]ll uses of water, including public trust uses, must now conform to the standard of reasonable use.” (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419, 443 (National Audubon).)	Please see Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board’s authority to prevent waste and unreasonable use under Article X, Section 2 of the California Constitution. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the State Water Board’s regulatory pathway. Further, the draft Plan released in October 2024 and the revised draft Plans released in July and December 2025 all include detailed programs of implementation. The constitutional amendment known today as Article X, section 2 was enacted in response to the court’s ruling in <i>Herminghaus v. Southern California Edison Co.</i> (1926) 200 Cal. 81, and prohibits waste and unreasonable use, method of use, or method of diversion of water. Contrary to the commenter’s assertion, this does not specifically preclude floodplain inundation, so long as such inundation does not violate the reasonable use doctrine. There is no set definition of what constitutes an unreasonable use (<i>Light v. State Water Resources Control Bd.</i> (2014) 226 Cal.App.4th 1463, 1479.). Further, the benefits of the unimpaired flow scenarios are documented in Chapter 3 of the Staff Report

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		Water quality objectives set and implemented by the State Water Board for the protection of the Bay-Delta are also subject to this limitation. (Racanelli, supra, 182 Cal.App.3d at pp. 143-144 [upholding the State Water Board's deletion of an Antioch industrial objective because meeting the objective would have required "a wasteful release of 25 acre-feet of outflow for each acre-foot diverted" in violation of California Constitution Article X, section 2].) Here, as the DSR acknowledges, both the means of implementing the proposed Inflow and Cold Water Habitat Objectives and the discretionary authority reserved to the State Water Board and its staff have been left undefined. Even the proposed Inflow Objective's basic standard of 45% to 65% of unimpaired flow standard leaves uncertain the ongoing management of over 5 MAF of flow annually. Given the broad scope of the reserved "flexibility" and discretion, and the layers of uncertainty this creates, it is impossible to know how much water the proposed Objectives actually would allocate to fish and wildlife beneficial uses. The State Water Board therefore cannot demonstrate that the Inflow and Cold Water Habitat Objectives comply with Article X, section 2's basic requirement that they not exceed the amount of water reasonably required for the actual fish and wildlife beneficial uses. [Footnote 8: The DSR indicates the proposed Inflow Objective is intended to promote a condition that the voters enacted Article X, section 2 to limit. The DSR states, "the proposed inflow objective ... is intended to provide for increasing the frequency and duration of floodplain inundation for the benefit of native species." (DSR, p. 5-15.) However, the voters enacted Article X, section 2 to overturn a California Supreme Court decision holding that riparian landowners could demand that appropriators bypass a river's entire flow to allow annual flood flows to irrigate riparians' pasture lands. (National Audubon, supra, 33 Cal.3d at pp. 442-443; Herminghaus v. Southern Cal. Edison Co. (1926) 200 Cal. 81, 93-94, 103-106, 110-113.) While the proposed Inflow Objective thus proposes to promote fish and wildlife beneficial uses through floodplain inundation, the voters specifically enacted Article X, section 2 to preclude irrigation beneficial uses from demanding floodplain inundation. Accordingly, the proposed	and further explained in Common Response 3.1, Fish Protection. Simply put, adopting a set of carefully considered water quality objectives (and the program of implementation designed to achieve those objectives) to support aquatic ecosystem conditions and prevent the further deterioration of water quality in order to protect fish and wildlife beneficial uses would not constitute an unreasonable use of water.

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		Inflow Objective is inconsistent with California's basic constitutional water policy.]	
260	50	[ATT 2] In addition, the DSR repeats, as between fish and wildlife beneficial uses and other beneficial uses, fundamental errors under Article X, section 2 that courts at one time committed as between consumptive beneficial uses. In the Tulare decision, the California Supreme Court rejected a lower court decision finding only that senior consumptive uses held a generalized priority right to "a reasonable quantity of the waters of [the] stream"; the Supreme Court instead held that Article X, section 2 imposes an obligation on a decision-maker to determine what water a senior use reasonably needs before denying water to a junior use. (Tulare, supra, 3 Cal.2d at pp. 523-525.)	This commenter mistakenly compares use of flow objectives to ensure the reasonable protection of fish and wildlife beneficial uses with a court case related to water right priority as between two individual water users. (See Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist. (1935) 3 Cal.2d 489, 523-525.) As correctly identified by this commenter, Article X, Section 2 of the California Constitution requires that all water use must be reasonable. However, there is no set definition of what constitutes an unreasonable use. (Light v. State Water Resources Control Bd. (2014) 226 Cal.App.4th 1463, 1479.) In determining what is reasonable use, the State Water Board considers the important public interests at stake in evaluating the proper balance between water supply and water quality, and determining what is reasonable. (United States v. State Water Resources Control Bd. (1986) 182 Cal.App.3d 82, 130.) This decision 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 (Ibid.; Wat. Code, §174.) Please see the response to comment 260-51 for additional discussion of the reasonable use doctrine and the revised proposed Plan amendments. See also Common Response 1.2, Water Quality Control Planning Process, regarding the Board's authority to prevent waste and unreasonable use under Article X, Section 2 of the California Constitution.
260	51	[ATT 2] Similarly, in City of Lodi v. East Bay Municipal Utility Dist. (1936) 7 Cal.2d 316 (Lodi), the California Supreme Court held that a lower court's decision violated Article X, section 2 because it required the junior user to forego what the Court called "huge releases" of natural river flows in order to maintain prior levels of recharge to the senior user's groundwater wells, where it was possible to implement a physical solution that would satisfy the senior's real demands while making significant supplies	Please see the response to comment 260-50. The State Water Board has carefully considered beneficial uses, conducting analyses throughout the Staff Report to inform its selection of revised proposed Plan amendments. For a discussion of these analyses, please see Section 13.6 of the final Staff Report, Public Trust and Water Code Section 13241 Analyses. Further, the benefits of the unimpaired flow scenarios are documented in

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		available to the junior. (Id. at pp. 336-344.) The Court's decision indicates that the lower court's decision that violated Article X, section 2 required the junior to release about 45% of unimpaired flow from its reservoir. (Id. at pp. 331, 336.) [Footnote 9: The lower court's injunction set a series of streamflow schedules, with the highest schedule occurring with total annual flows of 800,000 acre-feet (AF). (Lodi, supra, 7 Cal.2d at p. 331.) The Supreme Court's decision states that the maximum release schedule encompassed releases of an annual total of 360,000 AF. (Id. at p. 336.) The required releases that the Supreme Court rejected as violating Article X, section 2 therefore appear to have been about 45% of unimpaired flow ($360,000 \div 800,000 = 0.45$).] The Court held that, under Article X, section 2, the courts have a constitutional duty to develop and adopt physical solutions that advance the maximum beneficial use of the state's water while respecting a senior user's priority. (Id. at p. 341.) The courts have held (and the State Water Board itself has vigorously asserted) that the State Water Board has concurrent jurisdiction with the courts under Article X, section 2. (EDF v. East Bay Municipal Utility Dist. (1980) 26 Cal.3d 183, 200.) The constitutional duty that the Supreme Court in Lodi applied to the courts therefore fully applies to the State Water Board, too. In essence, by treating fish and wildlife beneficial uses as the most senior uses in the system that can demand, in the words of Lodi, "huge releases" from the Bay-Delta watershed and significant reductions in water supplies for other uses as mere resulting "impacts," the DSR puts fish and wildlife in a position similar to the seniors in Tulare and Lodi. The fact that the proposed Inflow and Cold Water Habitat Objectives attempt to reserve an essentially undefined, but enormous, block of water to fish and wildlife, and attempt to reserve seemingly unfettered future discretion to State Water Board staff to decide how to define that block, means that those proposed Objectives violate Article X, section 2. In essence, the DSR attempts to implement, to benefit fish and wildlife, an undefined first call on the Bay-Delta watershed's total flows in a way very similar to the undefined first calls on single river's flows that the California Supreme Court held were a violation of Article X, section 2 in Tulare and Lodi.	Chapter 3 of the Staff Report and further explained in Common Response 3.1, Fish Protection. Simply put, adopting a set of carefully considered water quality objectives (and the program of implementation designed to achieve those objectives) to support aquatic ecosystem conditions and prevent the further deterioration of water quality in order to protect fish and wildlife beneficial uses would not constitute an unreasonable use of water. The State Water Board has also weighed public input and responded accordingly; in response to comments received expressing concerns over potential water supply and carryover storage impacts, the revised proposed Plan amendments' inflow requirements 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. Please see Common Response 1.3, Revised Proposed Plan Amendments, for a discussion of the revised proposed Plan amendments' inflow objective and its associated water supply adjustments. The program of implementation also contains numerous flexible provisions allowing for adaptive management to minimize water supply impacts (e.g., the ability to manage numeric flow requirements as a total volume of water to shape flows) and also contains provisions allowing the State Water Board to develop and implement curtailment exceptions for human health and safety needs and other appropriate purposes. Contrary to this commenter's characterization of the Plan as prioritizing fish and wildlife beneficial uses, this flexibility is aimed at ensuring reasonable protection of fish and wildlife beneficial uses by also balancing with competing public interests. Comparing the revised proposed Plan amendments with the requirements contemplated in the 2010 Delta Flow Criteria Report helps illustrate the State Water Board's consideration of different beneficial uses as informed by the analyses contained in this Staff Report. The amount of water to be devoted to fish and wildlife beneficial uses via the regulatory pathway or VA pathway included in the revised proposed Plan amendments is far smaller than the amount recommended under the 2010 Delta Flow Criteria Report. The Delta Flow Criteria Report identified a

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			Delta outflow criterion of 75 percent unimpaired Delta outflow from January through June as protective of public trust resources in a scenario where fishery protection was the sole purpose for which waters were put to beneficial use. The analysis in the Delta Flow Criteria Report 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. See also Common Response 1.2, Water Quality Control Planning Process, regarding the State Water Board's authority to prevent waste and unreasonable use under Article X, Section 2 of the California Constitution, and for information on the consideration of non-flow measures and the State Water Board's authority to impose non-flow measures.
260	52	[ATT 2] In sum, the proposed Inflow and Cold Water Habitat Objectives, and the DSR's general and highly discretionary concept for implementing them, are not consistent with Article X, section 2 for several reasons. Nothing in Article X, section 2 authorizes the state to impose undefined burdens on water rights that involve "huge releases" from rivers or to assume ongoing discretionary control over the exercise of those rights. Section 2 instead explicitly states that "nothing herein contained shall be construed ... as depriving any appropriator of water to which the appropriator is lawfully entitled." The State Water Board's assumption of ongoing discretionary authority over diverters to require them to release enormous amounts of water for what would be, under the proposed Inflow and Cold Water Habitat Objectives, the vaguely defined "needs" of fish and wildlife uses that those proposed Objectives would treat as priority water demands, would contradict California's basic constitutional policy concerning water rights and the beneficial uses they support.	Please see the responses to comments 260-49 through 260-51 regarding waste and unreasonable use and the regulatory pathway's inflow and cold water habitat objectives.
260	53	[ATT 2] The DSR Fails to State an Adequate Project Description, and Fails to Analyze the Proposed Inflow and Cold Water Habitat Objectives and Identify Appropriate Mitigation Measures as Required by CEQA The DSR's discussion of the proposed Inflow and Cold Water Habitat Objective generally violates CEQA in multiple ways. First,	The updated project description and associated proposed Plan amendments can be found in Chapter 13, Revised Proposed Plan Amendments. The impact analysis associated with the revised proposed Plan amendments can be found in Section 13.7, Environmental Analysis. Please see Common Response 1.3, Revised Proposed Plan Amendments, for additional information regarding the program of implementation, including measures

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		the DSR fails to state an adequate project description for those proposed Objectives because the proposed Objectives themselves are so vague and the DSR attempts to reserve so much undefined discretion to the State Water Board and its staff in how those proposed Objectives would actually be implemented. Second, because the proposed Objectives and their implementation are so vague, the DSR does not adequately analyze the impacts of implementing those proposed Objectives. In addition, as these comments and others demonstrate, the DSR's discussion of the proposed Objectives, and their implementation's impacts, also violate CEQA in numerous ways particular to specific resource categories. The DSR's failures to state an adequate project description, to conduct an adequate analysis, and to identify and commit the State Water Board to enforceable mitigation measures, however, are global problems that apply to all of the DSR's CEQA analysis of the proposed Objectives.	related to the inflow and cold water habitat objective. Also see Common Response 7.1, General CEQA and Approach to the Analysis, for additional information regarding the adequacy of the project description and impact analysis. Mitigation measures can be found under associated resource sections within Chapter 7, Environmental Analysis. As detailed in Section 7.1.9, Impact Summary, the State Water Board has authority to ensure that mitigation is implemented for certain actions that are within the State Water Board's jurisdiction. However, other mitigation measures are largely within the jurisdiction and control of other agencies or depend on how water users respond to the project. Accordingly, the State Water Board cannot guarantee that measures will always be adopted or applied fully to mitigate potentially significant impacts, which is why certain impacts remain listed as potentially significant within the environmental analysis of the Staff Report.
260	54	[ATT 2] The DSR Fails to State an Adequate Project Description for the Proposed Objectives and Their Implementation The DSR serves as the State Water Board's substitute environmental document for its update to the Bay-Delta Water Quality Control Plan, which constitutes a certified regulatory program under CEQA. (DSR, pp. 7.1-2 – 7.1-3; Cal. Code Regs., tit. 23, § 3777, subds. (a)-(b).) The DSR "is the functional equivalent" of an environmental impact report (EIR), and the same substantive standards apply to its contents as apply to EIRs. (Cal. Sportfishing Protection Alliance v. State Water Resources Control Bd. (2008) 160 Cal.App.4th 1625, 1642-1644; Env'tl. Prot. Info. Ctr. V. Johnson (1985) 170 Cal.App.3d 604, 618 ["Nothing ... supplies a basis for concluding that the Legislature intended [for certified regulatory programs to have] a blanket exemption from CEQA's thorough statutory scheme and its salutary substantive goals"]; CEQA Guidelines, § 15250.) The State Water Board's applicable regulations require a project description. (Cal. Code Regs., tit. 23, § 3777, subd. (b)(1); see also Western Placer Citizens for an Agricultural & Rural Environment v. County of Placer (2006) 144 Cal.App.4th 890, 898 ["A description of the project is an indispensable component of a valid EIR"].)	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description. Also see Common Response 1.3, Revised Proposed Plan Amendments, regarding inflow and cold water habitat. See Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding implementation of the cold water habitat objective. See Section 6.3.2, Reservoir Storage and Elevation, for information on how carryover storage targets as part of the cold water habitat objective will prevent complete drawdown of reservoirs.

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		"An EIR must contain an accurate, stable, and finite project description. [Citation.] Such a project description is the sine qua non of an informative and legally sufficient EIR." (Save Our Capitol! V. Dept. of General Services (2023) 87 Cal.App.5th 655, 673, internal quotes omitted.) An EIR "that states the eventual proposed project will be somewhere in 'a reasonable range of alternatives' is not describing a stable proposed project. A range of alternatives simply cannot be a stable proposed project." (Washoe Meadows Community v. Dept. of Parks & Recreation (2017) 17 Cal.App.5th 277, 288.) The DSR fails to state a project description for the proposed Inflow and Cold Water Habitat Objectives—or their implementation—that is stable or finite. As discussed above, the DSR's statement of those proposed Objectives, and its conceptual description of how they would be implemented, features, in general, at least two large uncertainties that make it impossible to understand what would actually happen under those proposed Objectives. First, as discussed above, the 20% range of unimpaired flow under the proposed Inflow Objective in which minimum streamflows would be set encompasses a range of uncertainty of up to 10 MAF a year. That volume is approximately equal to the total capacity of the four largest reservoirs in the Sacramento River watershed. In other words, the DSR provides no further definition to the project that includes the proposed Inflow and Cold Water Habitat Objectives than to say that, in the State Water Board's discretion, it could require the draining of four of the largest reservoirs in the state—including Lake Shasta and Lake Oroville, the keystone reservoirs of the CVP and the SWP, respectively.	
260	55	[ATT 2] Second, as also discussed above, the DSR proposes to reserve to the State Water Board and its staff a universe of standardless discretionary decisions under which diverters could be ordered to do almost anything within the proposed Objectives' very broad parameters. This sort of vague deferral of the real decision-making to staff after a CEQA document is certified causes that document to violate CEQA by stating an inadequate project description.	The Plan amendments are broad but not unbounded. Flexibility in the form of adaptive implementation is provided in part to mitigate water supply impacts if tailored solutions are available that are comparable or more protective for fish. The Staff Report's CEQA impact determinations are the most conservative but in many instances impacts can be reduced or avoided with tailored operations. The State Water Board provides these flexibilities in order to allow water diverters and reservoir

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		(stopthemillenniumhollywood.com v. City of Los Angeles (2019) 39 Cal.App.5th 1, 17-19, 21, 24-31 [EIR's project description inadequate where it only described the concept of a land use project and deferred to planning director discretion to change or transfer land uses within the project after city council approval].) A CEQA document based on such a deficient project description illegally impairs "informed public participation" because the EIR fails to disclose what the likely effects of the project will be. (Id. at pp. 31-32.) That is what the DSR does here in relation to the proposed Inflow and Cold Water Habitat Objectives.	owner/operators to develop tailored solutions that may minimize water supply and other impacts. The authority for the Executive Director to utilize the flexibilities is provided for if water users are not engaged in proposing and implementing adaptive implementation and sensible adjustments can and should be made. The Executive Director authority is also provided to make clear that the State Water Board may require adjustments when approving adaptive implementation proposals are generally good but need additional clarity or refinement to ensure fish protection and other expected outcomes. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding general CEQA compliance, and the adequacy of the project description. Additionally, since this comment was made on the 2023 draft Staff Report, the State Water Board also released draft versions of the Bay-Delta Plan for public review and comment and conducted a limited recirculation of the draft Staff Report providing additional opportunities for the public to understand the proposed Project and provide comment. See Common Response 1.3, Revised Proposed Plan Amendments, for more detail regarding the revised proposed Plan amendments and cold water habitat.
260	56	[ATT 2] The DSR and those proposed Objectives do not involve circumstances where a project description can be left as "flexible" in important ways. Those circumstances arise where uncertainties inherent in the underlying physical or natural conditions make it impossible for the lead agency to completely define the project's parameters. (See Citizens for a Sustainable Treasure Island v. City and County of San Francisco (2014) 227 Cal.App.4th 1036, 1056 (Treasure Island) [unknown scope of soil and groundwater contamination on project site]; Buena Vista Water Storage Dist. v. Kern Water Bank Authority (2022) 76 Cal.App.5th 576, 590 [volume of wet-year water covered by water right application subject to fluctuations due to hydrology].) The uncertainty and vagueness of the proposed Objectives and their implementation instead solely reflect how the DSR defines them. In such a circumstance, the CEQA project description is inadequate. (stopthemillenniumhollywood.com, supra, 39 Cal.App.5th at p. 19 ["no practical impediments as to	Please refer to the response to comment 260-55.

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		why (project proponent) could not have provided an accurate, stable and finite description” of the project].) “[I]ncessant shifts among different project descriptions do vitiate the [] EIR process as a vehicle for intelligent public participation.” (Washoe Meadows Community v. Dept. of Parks & Recreation (2017) 17 Cal.App.5th 277, 288, citing County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 197.)	
260	57	[ATT 2] Similarly, the DSR and the proposed Objectives do not involve a situation where the project described in a “program” CEQA document can be relatively general because a later environmental document will further define the project. An agency can adopt a program CEQA document for a plan “to govern the conduct of continuing program” (CEQA Guidelines, § 15168, subd. (a)(3)), but whatever title a CEQA document has, its “level of specificity ... is determined by the nature of the project and the rule of reason [citation], rather than a semantic label accorded to the [document].” (Treasure Island, supra, 227 Cal.App.4th at p. 1048, internal quotes omitted.) As discussed above, the DSR explicitly states that the proposed Objectives’ approval would trigger any number of deadlines for action by diverters who would be subject to those proposed Objectives, with some of those deadlines being as short as six months. (DSR, pp. 5-11 [6 months, 1 year and 2 years for different actions], 5-12 [2 years], 5-13 [9 months], 5-19 [6 months], 5-24 [12 months].) Notwithstanding the vagueness and opacity of the proposed Inflow and Cold Water Habitat Objectives, and the DSR’s merely conceptual description of their implementation, the DSR makes plain that they all would be implemented quickly. As a result, the DSR must provide a project description adequate to describe what would actually happen that quickly. It does not. It is therefore impossible to tell what would actually happen under the proposed Inflow and Cold Water Habitat Objectives, so the DSR’s project description is inadequate and violates CEQA.	Please refer to the response to comment 260-55. See Common Response 1.3, Revised Proposed Plan Amendments, regarding the revised proposed Plan amendments and cold water habitat. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the project description and the level and scope of the analysis.
260	58	[ATT 2:] The DSR Does Not Adequately Analyze the Impacts of Implementing the Proposed Objectives Even if the environmental effects of the project are designated as “significant,” this does not excuse the failure to evaluate and disclose the nature and magnitude of the adverse impacts.	A description of potential adverse environmental effects that may be associated with the revised proposed Plan amendments can be found within the impact analyses housed in Chapter 7, Environmental Analysis, and Section 13.7, Environmental Analysis. Please see Common Response 7.1, General CEQA and

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		(Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 514 (Sierra Club); see also Berkeley Keep Jets Over the Bay Com. V. Bd. Of Port Comrs. (2001) 91 Cal.App.4th 1344, 1371 [EIR's approach of simply labeling the effect "significant" without analyzing the project's impacts failed to satisfy CEQA's requirements for environmental assessment].) "An adequate description of adverse environmental effects is necessary to inform the critical discussion of mitigation measures and project alternatives at the core of the EIR." (Sierra Club, supra, at p. 514.) Here, the DSR follows the same flawed approach the Court of Appeal rejected in stopthemillenniumhollywood.com. In that decision, the Court of Appeal held that an asserted analysis of a project's "worst-case-scenario environmental effects" could not bring an EIR into compliance with CEQA if that EIR did not actually describe and analyze the actual project. (stopthemillenniumhollywood.com, supra, 39 Cal.App.5th at p. 18.)	Approach to the Analysis, regarding the State Water Board's certified regulatory process and CEQA compliance.
260	59	[ATT 2] Like the EIR rejected in stopthemillenniumhollywood.com, the DSR indicates that all of its environmental analyses reflect just one possible scenario for how the Inflow and Cold Water Habitat Objectives would be implemented and states that the actual effects of implementing the Objectives will vary from that analysis. Summarizing the results of the SacWAM hydrologic modeling used to determine the Objectives' impacts, the DSR states: The proposed Plan amendments could result in changes in reservoir levels, including lower reservoir levels in some locations... [O]perations of the rim reservoirs are increasingly constrained under the percent of unimpaired flow scenarios... because new instream flow requirements would limit the ability to store water in the winter and spring, and cold water pool requirements would limit how far rim reservoirs can be drawn down in the drier years... The actual level of a given reservoir could differ from that modeled as operations are refined with increased understanding of actions needed to protect cold water habitat.... [S]everal of the upper watershed reservoirs represented in SacWAM show the potential for large changes in operation... However, the modeling scenarios represent only one	As described in Chapter 6, Changes in Hydrology and Water Supply, modeling scenarios in the Staff Report are presented as a range of potential instream flow changes which are grouped into three alternatives, with each alternative encompassing a range of percent unimpaired flow. The three alternatives are then compared to baseline conditions in the environmental analysis (Chapter 7 and Section 13.7) of the Staff Report. The scenarios represent a range of tributary inflows in recognition that tributaries may have unique needs and conditions and to allow for adjustments within a given numeric range of inflows in order to meet those needs. For many resource areas, the environmental analysis often considers a range of potential outcomes, including the most conservative and least conservative, for evaluating potentially significant effects. For each resource area, the analysis assumes a worst-case scenario in order to capture all possible reasonably foreseeable significant adverse environmental impacts associated with the project, as required by CEQA. Additional details regarding State Water Board implementation of the revised proposed Plan amendments, including the inflow and cold water habitat objectives, can be found in Chapter 13,

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		possible operation of these systems. (DSR, p. 7.1-16, emphasis added.) The DSR proposes that the State Water Board and its staff would have extensive, undefined, and ongoing discretion to decide how the proposed Inflow and Cold Water Habitat Objectives would be implemented. Indeed, comments from State Water Board staff during the public hearings confirmed that the DSR presents a “conservative view” that is “more of a worst case” and that the Objectives’ actual impacts are likely to be different than those described in the DSR because of how much “flexibility” the Objectives incorporate. (December 1, 2023 State Water Board proceeding video, time marks 1:03:00-1:07:15, 7:59:30-8:02:40.)	Revised Proposed Plan Amendments. Ultimately, the flexibility in implementation of the revised proposed Plan amendments is included due to the wide range of unique tributary conditions. The commenter incorrectly characterizes the Plan flexibilities as extensive, undefined, and ongoing subjective discretion by the State Water Board. The Plan amendments are broad but not unbounded. Flexibility in the form of adaptive implementation is provided in part to mitigate water supply impacts if tailored solutions are available that are comparable or more protective for fish. CEQA impact determinations are the most conservative, but in many instances can be reduced or avoided with tailored operations. The State Water Board provides these flexibilities with the intent that water diverters and reservoir owner/operators will utilize these provisions taking into consideration the unique circumstances of specific tributaries. The authority for the Executive Director to utilize the flexibilities is provided if water users are not engaged in proposing and implementing adaptive implementation and sensible adjustments can and should be made. The Executive Director authority is also provided to make clear that the State Water Board may require adjustments when approving adaptive implementation proposals to ensure fish protection. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the approach to the analyses provided in the Staff Report. Additionally, see Common Response 1.3, Revised Proposed Plan Amendments, regarding the program of implementation, including measures related to the inflow and cold water habitat objectives.
260	60	[ATT 2] Yet, according to the DSR, implementation of the proposed Inflow and Cold Water Habitat Objectives would begin within months of their adoption, under the discretionary authority of State Water Board staff, without further environmental review. (DSR, pp. 5-11 – 5-13, 5-24.) Thus, according to the DSR, the State Water Board would begin implementing the Objectives without further defining or analyzing them in future, more specific CEQA documents that disclose the project’s actual impacts. While a broad-brush analysis of a program’s water supply impacts may be appropriate when the specific details of implementation activities will be analyzed in later project-level EIRs (see In re Bay-Delta etc.	Further definition and analysis has been provided in Chapter 13, Revised Proposed Plan Amendments, which includes additional detail on implementation of the proposed inflow and cold water habitat objectives. As a substitute CEQA document, this additional information has been made available for public comment, including the associated environmental analysis associated with implementation. Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the program of implementation, including measures related to the inflow and cold water habitat objectives and Common Response 7.1, General CEQA and Approach to the Analysis, regarding compliance with

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		(2008) 43 Cal.4th 1143, 1172-1173), that is not what the State Water Board proposes to do here. Rather, according to the DSR, the State Water Board would adopt the proposed Objectives without defining how they will be implemented beforehand, in a process that effectively bypasses any environmental analysis of their implementation.	CEQA and the approach to the environmental and impact analyses provided in the Staff Report.
260	61	[ATT 2] When an agency proposes to adopt regulations or a regulatory plan, the scope of the CEQA review should encompass not only the enactment of the regulations or plan but also the foreseeable actions that will be taken to implement the plan. (POET, LLC v. State Air Resources Bd. (2017) 12 Cal.App.5th 52, 57, 74-75; see also Assn. for a Cleaner Environment v. Yosemite Community College Dist. (2004) 116 Cal.App.4th 629, 639, 641 [CEQA requires that a public agency analyze all of the effects of all parts of the project]; CEQA Guidelines, § 15378, subd. (a) [defining “project” as “the whole of an action”].) The DSR confirms that the proposed project here includes the implementation of the proposed Inflow and Cold Water Habitat Objectives: The underlying 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. (DSR, p. 7.1-5, emphasis added.) The DSR makes no attempt to analyze the full universe of impacts of implementing the proposed Objectives, relying instead on what is asserted to be a worst-case scenario. It also states that the State Water Board will begin implementation without any further environmental review. CEQA does not permit the State Water Board to skip this analysis. (Cf., Sierra Club, supra, 6 Cal.5th at p. 514; stopthemillenniumhollywood.com, supra, 39 Cal.App.5th at p. 20.)	Please refer to the response to comment 260-55. Also see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the identification and evaluation of reasonably foreseeable actions and the level and scope of the analysis. See Common Response 1.3, Revised Proposed Plan Amendments, regarding the revised proposed Plan amendments.
260	62	[ATT 2] Even Judged by the Standards for a Program EIR, the DSR Does Not Satisfy CEQA’s Requirements for Disclosing the Environmental Impacts of the Objectives Because They Are So Undefined	Please refer to the response to comment 260-55. Also see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the use of the Staff Report to meet CEQA requirements and the level and scope of the analysis.

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		Under section 15168 of the CEQA Guidelines, the lead agency may prepare a program EIR “[i]n connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program” (id., subd. (a)(3)), such as these proposed amendments to the Bay-Delta Plan. While a program EIR need not contain site-specific detail, it must nonetheless analyze all the impacts resulting from approval and implementation of the program itself. (In re Bay-Delta etc., supra, 43 Cal.4th at p. 1169 [program EIR may disclose the environmental effects of obtaining water from potential sources in general terms when second- tier review will analyze site-specific impacts]; Center for Biological Diversity v. Dept. of Fish & Wildlife (2015) 234 Cal.App.4th 214, 237; Cal. Clean Energy Com. V. City of Woodland (2014) 225 Cal.App.4th 173, 200 (CBD).) Even in a program EIR, the lead agency must analyze the reasonably foreseeable significant environmental effects of the project; the “program” designation does not justify deferring such analysis to a subsequent CEQA document. (CEQA Guidelines, § 15152, subd. (b).) While additional environmental review may properly determine whether the program’s impacts are occurring at a specific site, second-tier environmental review should not be disclosing impacts of the program that the program EIR simply neglected to identify. (See CBD, supra, 234 Cal.App.4th at p. 237.) A program EIR’s disclosure of the full scope of the impacts of the program is necessary to satisfy CEQA’s demand that the environmental document analyze all the reasonably foreseeable impacts of the program as a whole. (See Laurel Heights Improvement Assn. v. Regents of University of Cal. (1988) 47 Cal.3d 376, 394 [“A fundamental purpose of an EIR is to provide decision makers with information they can use in deciding whether to approve a proposed project, not to inform them of the environmental effects of projects that they have already approved”]; see also Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2003) 106 Cal.App.4th 715, 723 [CEQA’s demand for meaningful information “is not satisfied by simply stating information will be provided in the future”].) Thus, to be adequate to support a program, the program EIR	See Common Response 1.3, Revised Proposed Plan Amendments, regarding the revised proposed Plan amendments. See Common Response 6.1. Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding the SacWAM scope, scale, and application.

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		must contain sufficient analysis and detail to indicate how the program would be implemented. (Center for Sierra Nevada Conservation v. County of El Dorado (2012) 202 Cal.App.4th 1156, 1162, 116 (Sierra Nevada).) While a CEQA document can properly authorize experts to make future decisions regarding the implementation of the project, it must set forth “objective criteria” to govern those decisions. (The Claremont Canyon Conservancy v. Regents of University of Cal. (2023) 92 Cal.App.5th 474, 486-490.) This definition delimits the scope of the impacts, thus creating the framework for an environmental analysis that encompasses future implementation. In CBD, the program EIR for the hatchery operation and fish-stocking program at issue properly analyzed “every impact that reasonably could occur by stocking fish in any water body in the state based on the information currently known” and “explain[ed] what the impacts [of the program] will likely be....” (CBD, supra, 234 Cal.App.4th at p. 237.) Since additional environmental review for specific sites likely “will reveal whether the impacts discussed in the EIR are occurring at that site,” not “unanticipated impacts” that were not disclosed in the program EIR, the court of appeal found the EIR adequately evaluated the impacts of the fish- stocking and hatchery operation program. (Ibid.) In contrast, in Sierra Nevada, neither the General Plan nor its program EIR included the detailed criteria necessary to implement an oak woodlands fee mitigation program. Consequently, the program EIR could not be used to implement the fee mitigation program, and the lead agency had to prepare a new EIR to evaluate the criteria that it proposed to implement for the fee mitigation program. (Sierra Nevada, supra, 202 Cal.App.4th at p. 1176.) Like the EIR in Sierra Nevada, the DSR does not fulfill the requirements of a program EIR because neither it nor the Objectives themselves identify any meaningful objective criteria or standards to govern their implementation. The DSR itself, as well as the State Water Board staff’s public comments, both acknowledge that the SacWAM modeling results presented in the DSR, and the resulting environmental analysis, represent “only	

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		one possible operation” of the many reservoirs in the Bay-Delta watershed under those Objectives, and that the implementation of the Objectives is intended to be “flexible.” (DSR, p. 7.1-16.) To retain this “flexibility,” the DSR defers essentially all real-world decisions about how the proposed Objectives will be implemented to undefined future exercises of discretion. Consequently, the DSR does not—and cannot—analyze the reasonably foreseeable impacts of the proposed project, as CEQA requires. Here, the DSR simply declines to adopt any objective criteria or standards that would govern the implementation of the proposed Objectives. Instead, as detailed above, the State Water Board has specifically sought to reserve discretion over implementation, leaving the “details” of how the program will actually work to be decided later. The State Water Board has chosen to undertake a very complex project encompassing diversions throughout the Bay-Delta watershed, and also resulting uses of water outside of that watershed, without specifying how the Objectives would be implemented, or what environmental impacts would result. CEQA does not permit the State Water Board to proceed in this manner.	
260	63	[ATT 2] 4. The DSR Fails to Identify and Commit the State Water Board to Implementing Enforceable Mitigation Measures with Performance Standards The mitigation measures proposed to address the impacts of the proposed Objectives violate CEQA because they are impermissibly vague. To satisfy CEQA, the DSR must propose and describe feasible mitigation measures to minimize or avoid the project’s significant environmental impacts. (Pub. Resources Code, §§ 21002.1, subd. (a), 21100, subd. (b)(3), 21080.5, subds. (d)(2)(A), (d)(3)(A).) This text must be included in the environmental document to “assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.” (POET, LLC v. State Air Resources Bd. (2013) 218 Cal.App.4th 681, 734-735; see also Pub. Resources Code, § 21002.)	The State Water Board acknowledges in Chapter 7, Environmental Analysis, that it cannot guarantee that the identified measures will be adopted or applied to fully mitigate potential impacts, and therefore such impacts remain potentially significant. This disclosure is in line with the purpose and requirements of the CEQA analysis. Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the mitigation measures.

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		Generally, formulation of mitigation measures cannot be deferred to the development of future plans or measures. (CEQA Guidelines, § 15126.4, subd. (a)(1)(B).) Mitigation measures may specify performance standards which would mitigate the significant effect of the project, and which may be accomplished in more than one specified way. (Ibid.) However, the lead agency impermissibly defers mitigation “when an EIR puts off analysis ... without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR.” (CBD, supra, 234 Cal.App.4th at p. 240; Clover Valley Foundation v. City of Rocklin (2011) 197 Cal.App.4th 200, 236.) At a minimum, the mitigation set forth in the EIR must: “(1) commit[] [the lead agency] to the mitigation, (2) adopt[] specific performance standards the mitigation will achieve, and (3) identif[y] the type(s) of potential action(s) that can feasibly achieve that performance standard and that will [be] considered, analyzed, and potentially incorporated in the mitigation measure.” (East Oakland Stadium Alliance v. City of Oakland (2023) 89 Cal.App.5th 1226, 1254-1255 (East Oakland Stadium) [citing CEQA Guidelines, § 15126.4, subd. (a)(1)(B)].) Mitigation measures that merely state generalized goals do not satisfy CEQA. (King & Gardiner Farms, LLC v. County of Kern (2020) 45 Cal.App.5th 814, 856.) The requirement of specificity implies that there must be “a reasonably clear and objective measure of compliance.” (East Oakland Stadium, supra, 89 Cal.App.5th at p. 1274.) A mitigation measure that only identifies vague or unspecified protocols for achieving is inadequate. (Sierra Watch v. County of Placer (2021) 69 Cal.App.5th 86, 110 [explaining that an agency cannot provide “good neighborly advice” as a substitute for providing guidance for how feasible procedures may be modified to lessen the impact].) “Mitigating conditions are not mere expressions of hope.” (Golden Door Properties, LLC v. County of San Diego (2020) 50 Cal.App.5th 467, 506.) Several mitigation measures in the DSR merely describe generalized goals for the impacted parties to adopt voluntary	

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		implementation plans, invest in diversified water portfolios, and increase water use efficiency to offset the significant water supply impacts resulting from the State Water Board's adoption of the Objectives. The DSR's mitigation measures for impacts to agriculture, aquatic and biological resources, energy, water quality, and municipal water supplies all repeat the same text, and none of these measures commit the State Water Board to take any specific actions or adopt performance standards to test the efficacy of the mitigation. (See DSR, pp. 7.4-97 [agriculture and forest resources], 7.6.2-105 [aquatic biological resources], 7.8-41 [energy], 7.12.2-68 [hydrology and water quality], 7.20-50 [utilities and service systems].) [Footnote 10: These goals are duplicated in each section without distinction. In other words, the description of using voluntary implementation plans to mitigate impacts to agriculture is the exact same description that is used to mitigate impacts to energy.]	
260	64	[ATT 2] For example, mitigation measure UT-d.1 proposes that the State Water Board "encourage" water users to develop voluntary implementation plans to "work together to tailor approaches to meet the proposed Plan amendments in a manner that minimizes disruptions to consumptive uses." (DSR, p. 7.20-50.) This measure further states that the State Water Board's encouragement of those plans could "amplify" benefits and may "result in less water supply reductions for municipal use." (Ibid.) This mitigation measure does nothing more than state a generalized goal for water users to replace, reduce, or reuse water supplies to make up for the impacts caused by the State Water Board's adoption of the proposed Objectives. The State Water Board has not committed itself to any specific mitigation activity or performance standards. Rather, it attempts to assign the responsibility for mitigating the impacts of its action—adoption of the proposed Objectives—to the parties who are impacted by its action, such as municipal water suppliers. The DSR then compounds this error by failing to identify any specific protocols, performance criteria, or any other standards for the State Water Board to undertake to reduce or avoid the impacts of its project on municipal supplies. The fact that Porter-Cologne allows a water quality control plan to describe actions of others that may be necessary to implement that plan (Wat. Code, §	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding voluntary implementation and local cooperative solutions. See also Common Response 7.1, General CEQA and Approach to the Analysis, regarding the Staff Report's approach to mitigation and the scope of the State Water Board's authority to prescribe measures. Please see Common Response 7.20, Utilities and Service Systems, for an explanation of how the Staff Report considered availability of municipal water, alternative water supplies and feasibility of potential response actions to reduced surface water supply.

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		13242, subd. (a)), is not a substitute for CEQA's requirement that the State Water Board, as the lead agency, must mitigate the impacts of its action itself.	
260	65	<[ATT 2] Mitigation measure UT-d.2 is similarly defective. This mitigation measure states: Water users can and should diversify their water supply portfolios to the extent possible, in an environmentally responsible manner and in accordance with the law. This includes sustainable conjunctive use of groundwater and surface water, water transfers, water conservation and efficiency upgrades, and increased use of recycled water. The mitigation measure does not define or establish any objective criteria for what is meant by "in an environmentally responsible manner and in accordance with the law." (DSR, p. 7.20-50.) Essentially, mitigation measure UT-d.2 does nothing more than urge water users to diversify their water supply portfolios. While the mitigation measure refers to various components (other than surface flows) that could form part of a water user's supply portfolio, such as groundwater recharge and recovery, the measure does not include any specific performance standards or objective measures of compliance to demonstrate how the mitigation measure will effectively reduce the Objectives' impacts. Nor does the mitigation measure commit the State Water Board to doing anything to implement this measure, such as funding new groundwater storage and recovery infrastructure for water users who will be affected by the State Water Board's adoption of the proposed Objectives, and there is no evidence that such State Water Board actions would be infeasible. In the discussion of groundwater storage and recovery, for example, the mitigation measure merely states that the State Water Board will make "efforts to encourage and promote environmentally sound recharge projects that use surplus surface water, including prioritizing the processing of temporary and long-term water right permits for projects that enhance the ability of a local or state agency to capture high runoff events for local storage or recharge." (DSR, p. 7.20-50.) "Efforts to	Please see Common Response 7.20, Utilities and Service Systems, for an explanation of how the Staff Report considered availability, feasibility, and the cost of alternative water supplies; and for a discussion of the need for performance standards to reduce effects of reduced Sacramento/Delta surface water supply on municipal supplies. Mitigation Measure MM-UT-d: 2 includes three sub-elements: Groundwater Storage and Recovery, Recycled Water, and Water Conservation. All three measures are valid and potentially effective responses to supply shortages. Municipal water suppliers may choose any approach, a combination of approaches, or they may identify another as-yet unknown approach to meet their own unique needs.

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		encourage and promote” is, obviously, a generalized goal, not a specific performance standard for the State Water Board to achieve. Further, the mitigation measure contains no explanation for how the State Water Board will deem a project “environmentally sound” or what standards staff will use to determine whether a project “enhances” a water user’s ability to capture high runoff. In effect, this measure simply states that the State Water Board will use its discretion in the future to encourage the parties affected by this project to take actions that the State Water Board or its staff deems beneficial.	
260	66	[ATT 2] Further, there is no substantial evidence to support the conclusion that water transfers, or any of the other means that mitigation measure UT-d.2 lists as a way of diversifying water portfolios, would be feasible or effective to reduce the water supply impacts of the proposed Objectives. CEQA defines “feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.” (CEQA Guidelines, § 15364.) Both the DSR itself and State Water Board staff at the hearings acknowledge they do not know what water users will be capable of doing to reduce or avoid the impacts of the Objectives; the capabilities of local systems are known only to the local agencies. The undisputed evidence from the local agencies and their expert consultants on water transfers confirms that implementation of the Inflow and Cold Water Habitat Objectives will result in the significant reduction if not total cessation of water transfers that have historically been implemented with willing buyers. (See section III.F, infra.) Given this undisputed evidence, the State Water Board cannot properly find that water transfers are a feasible means of reducing or avoiding the loss of water supplies caused by the proposed Objectives.	Please see the response to comment 260-64. The impact conclusions made in the Staff Report do not rely on the implementation of other water management actions. The Staff Report recognizes that the availability of replacement supplies may be limited. CEQA does not prohibit identification of mitigation that is likely feasible for many but may not be feasible in all cases. Section 7.1.5.3, Reasonably Foreseeable Methods of Compliance and Response Actions, acknowledges that implementation of the project would reduce Sacramento/Delta water supplies at certain times and locations, which could limit the amount of surface water available for transfer. At the same time, changes in water supply could increase the value of transfer water, thereby incentivizing transfers and leading to transfers from lower net revenue crops to higher net revenue crops, or for municipal uses. Section 6.6, Other Water Management Actions, provides information on temporary and permanent transfers that have occurred in recent decades. As discussed in Section 8.3, Costs Associated with Other Water Management Actions, there is a suite of reasonably foreseeable actions that affected entities may undertake to address possible surface water supply reductions. Water transfers were considered in the Staff Report analysis because urban water management plans indicated that such transfers had been or were being considered as part of the overall water supply planning efforts. Refer to Common Response 8.1, Economic Analysis and Other Considerations, regarding additional discussion of water transfers.
260	67	[ATT 2] Mitigation measures UT-d.1 and UT-d.2, and each of the duplicative measures identified above, [Footnote 11: See DSR	Please see the response to comment 260-64.

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		pages 7.4-97 (agriculture and forest resources), 7.6.2-105 (aquatic biological resources), 7.8-41 (energy), 7.12.2-68 (hydrology and water quality), 7.20-50 (utilities and service systems).] effectively say nothing more than water users should use different sources of water or find better ways to conserve their current use. Mitigation measure UT-d.3 reiterates the conservation theme, stating, among other things, that “[a]ll municipal water suppliers and agricultural water users have an obligation to maximize water use efficiency and utilize conservation to the extent possible in conformance with the prohibition against waste and unreasonable use in the California Constitution.” (DSR, p. 7-20.50.) Similarly, mitigation measure UT-d.5 provides, in its entirety, “[e]ntities that are already implementing local water shortage policies should prioritize water supplies for health and safety, if not already doing so.”	
260	68	[ATT 2] Collectively, these mitigation measures amount to mere expressions of hope that water users—the impacted parties—will find a way to reduce or avoid the water supply impacts that would result from the State Water Board’s adoption of the proposed Objectives. These mitigation measures lack not only specific performance standards and enforceable metrics, but also any commitment by the State Water Board to take actions to mitigate the water supply impacts of its own project. Consequently, the mitigation measures set forth in the DSR fall far short of the minimum standards required by CEQA.	Please see Common Response 7.1, General CEQA and Approach to the Analysis, regarding the adequacy of the mitigation measures and the role of the State Water Resources Control Board.
260	69	[ATT 2] The DSR’s Alternatives Analysis Related to the Proposed Objectives and the Modular Alternatives Violates CEQA Because the Proposed Water Quality Objectives Do Not Satisfy the Stated Project Objective of Providing Cold Water Habitat for Fish, the DSR Fails to Include a Reasonable Range of Feasible Alternatives Alternatives must “feasibly attain most of the basic objectives of the project....” (We Advocate Thorough Environmental Review v. County of Siskiyou (2022) 78 Cal.App.5th 683, 691.) “The entire purpose of the alternatives section in an EIR is to consider environmentally superior alternatives that would accomplish most of the project objectives.” (The Flanders Foundation v. City of Carmel-by-the-Sea (2012) 202 Cal.App.4th 603, 623, internal	Please see Common Response 7.24, Alternatives Analysis, regarding the range of feasible alternatives. Also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, regarding the implementation of the cold water habitat objective.

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		quotes omitted; see also <i>Citizens of Goleta Valley v. Board of Supervisors</i> (1990) 52 Cal.3d 553, 565 [“One of [an EIR’s] major functions ... is to ensure that all reasonable alternatives to proposed projects are thoroughly assessed by the responsible official” (internal quotes omitted)].) “The process of selecting the alternatives to be included in the EIR begins with the establishment of project objectives by the lead agency.” (In re Bay-Delta etc., supra, 43 Cal.4th at p. 1163; see also CEQA Guidelines, §§ 15126.6, subd. (a) [“An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.”], § 15124, subd. (b) [lead agency must use statement of project objectives to define the scope of alternatives to be analyzed in the EIR].) For an alternative to be both “feasible” and “adequate” under CEQA, it must be capable of attaining most of the basic objectives of the project. (Cf., <i>Save Our Access etc. v. Watershed Conservation Auth.</i> (2021) 68 Cal.App.5th 8, 32; see also CEQA Guidelines, § 15126.6, subd. (c).) Alternatives that fail to “feasibly accomplish most of the basic objectives of the project” are not properly included in the range of reasonable alternatives analyzed by the lead agency. (CEQA Guidelines, § 15126.6, subd.(c).) The DSR defines the project objectives to include provision and protection of cold water habitat for fish: The proposed Plan amendments include the following objectives and implementation measures for the protection of fish and wildlife.... [¶¶] Cold water habitat provisions that would require reservoirs to be operated in a manner that provides needed cold water habitat for salmonids or other measures to provide cold water habitat. (DSR, p. 7.1-1.)	

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		The DSR's alternatives analysis presents only a series of alternative flow ranges—from 35 to 75% of unimpaired flow—for the proposed Inflow Objective. The analysis included in the appendices to the DSR confirms that these proposed alternatives would actually reduce, not increase, available cold water habitat for the fish in the stream during the summer and fall. For example, the temperature modeling results for the American River show that implementation of the proposed Inflow Objective at 55% of unimpaired flow would substantially increase the amount of time that lower American River water temperatures exceed temperature standards for juvenile steelhead. (DSR, p. 7.6.2-12; DSR Appen. A6, Tables A6-208, A6-210 – A6-213.) Unsurprisingly, the temperature results demonstrate that releasing cold water under the proposed Inflow Objective in the spring will create more cold water habitat in the river in the spring, but this comes at the expense of the cold water that is currently available for release in the summer and fall. Since steelhead rear in the river year-round, the increased summer and fall temperatures impair cold water fish habitat. While the State Water Board did not evaluate the temperature impacts of implementing the proposed Inflow Objective on all of the streams that would be subject to that regulation, the DSR claims that the results of the temperature analyses it did conduct are “indicative of changes in stream temperatures that may occur downstream of other rim reservoirs.” (DSR, pp. 7.12.1-65, 7.6.2-88.) Since the temperature modeling indicates the proposed Inflow Objective will impair cold water habitat, the alternatives presented in the DSR are not capable of meeting the stated project objective to “provide[] needed cold water habitat for salmonids....” (See DSR, p. 7.1-1.)	
260	70	[ATT 2] Moreover, the proposed Inflow Objective alternatives are not feasible because they are not capable of being implemented consistent with the terms of the now-applicable 2019 NMFS Biological Opinion (Record of Decision issued 2020) governing the long-term operations of the CVP and the SWP. [Footnote 12: The 2019 NMFS Biological Opinion is available at https://www.fisheries.noaa.gov/resource/document/biological-	The 2024 National Marine Fisheries Service Biological Opinion (BiOp) (NMFS 2024) states that “take will be exceeded if *daily average* [emphasis added] water temperatures at Watt Avenue [or Hazel Avenue, depending on water year type] exceed 68°F from May 15 to October 31 for more than 7 consecutive days...”. Exceedances of 68°F (daily average) occur under baseline condition in approximately 20 percent of days between May 15

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		opinion-reinitiation-consultation-long-term-operation-central-valley.] As noted above, under CEQA, “feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.” (CEQA Guidelines, § 15364.) The Incidental Take Statement of the 2019 NMFS Biological Opinion establishes temperature as a surrogate for take of protected steelhead on the American River and specifies that in most years temperatures at Watt Avenue should not exceed 68 degrees on a 7-day average daily maximum basis (7DADM); in certain critical years or years following a critical year, that compliance point is moved upstream to Hazel Avenue. Yet the DSR discloses that all of the unimpaired Inflow Objectives (from 35% to 75%) would exceed 69 F (7DADM) at Watt Avenue. (DSR, p. A6-406.) Thus, none of the Inflow Objective alternatives can be implemented consistent with the terms of the 2019 NMFS Biological Opinion, with which Reclamation and DWR are required to comply. Consequently, the alternatives presented in the DSR are infeasible and fail to attain the basic project objective of providing cold water habitat for salmonids.	and October 31. Please see Section 7.6.2, Aquatic Biological Resources, for more information. If the BiOp requirements are often exceeded under current conditions, it is unclear how implementation of the inflow objectives would result in a new inconsistency with the BiOps. In addition, implementation of the cold water habitat objective could result in lower temperature impacts than modeled and presented in the staff report. Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for more information regarding full implementation of the cold water habitat objective. Please also see Common Response 7.24, Alternatives Analysis, for information on the feasibility of alternatives.
260	71	[ATT 2] 2. The DSR’s Discussion of Modular Alternatives Is Insufficient to Support Adoption of Any of Them The DSR identifies a series of “modular” components that could be added to the proposed Plan amendments, or any of the other alternatives, but it does not clearly or sufficiently describe or analyze the components, how or when they would be adopted, nor the impacts of the components themselves or the components in combination with the alternatives they would modify. The description of these alternatives is vague and the DSR does not provide sufficient information to understand how these alternatives would function in conjunction with the proposed Plan amendments or any of the other alternatives, or how. What would the criteria be for selecting them? Would the modular alternative(s) be adopted when the State Water Board adopts the current update to the Bay-Delta Plan, or could they be adopted at some future time? The DSR states: The environmental impacts of each of these modular alternatives are evaluated in isolation compared with existing conditions to	The 2023 draft Staff Report described the modular drought alternatives in Section 7.2, Description of Alternatives, with sufficient detail for the purposes of the analysis. These alternatives were adequately analyzed in Section 7.24.6, Modular Drought Alternatives (Alternative 5a and 5b), and Section 9.9, Modular Alternatives for Proposed VAs. As discussed in Section 7.24.1, Introduction, the modular alternatives could be layered onto the stand-alone alternatives, and the environmental impacts of each of the modular alternatives are evaluated in isolation compared with existing conditions to properly characterize the changes that could occur from each modular alternative, as distinguished from impacts of the stand-alone alternatives. As described in Section 7.24.6, impacts can be avoided or reduced by implementation of the mitigation measures indicated in Section 7.3, Aesthetics, through Section 7.20, Utilities and Service Systems. Also, please see Common Response 7.24, Alternatives Analysis, for more information on the description and analysis of the alternatives.

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		properly characterize changes that could occur from each modular alternative, as distinguished from impacts of the stand-alone alternatives. Some discussion of the impacts of each modular alternative in combination with the proposed Plan amendments, other flow alternatives, and proposed VAs is also provided. (DSR, p. 7.24-2.) By evaluating the impacts of these modular alternatives largely in isolation, the DSR does not provide sufficient information or analysis for the public or decision-makers to understand how any of these components — or all of them — would be implemented in combination with the proposed Plan Amendments or any of the other alternatives, including the Voluntary Agreements Alternative. The highly generalized comparative analysis that is provided (in some cases no more than a few sentences), is insufficient to inform the public or decision-makers of the magnitude and extent of the impacts of the modular alternatives. As a result, the State Water Board could not adopt or implement any of these alternatives without supplemental environmental review sufficient to enable the affected public to understand the specific actions under the alternatives and actual consequences, and availability of mitigation measures or alternatives to the modular alternatives that would avoid or substantially lessen any of their significant impacts.	
260	72	[ATT 2] Modular alternatives that would further constrain water supplies, including Alternatives 5a, 5b and 6a, are particularly concerning. According to the DSR: Alternative 5a (Instream Flow Protection Provision Alternative) would require water diverters (in addition to DWR and Reclamation) to bypass water needed to meet existing water quality objectives during drought circumstances similar to existing standard water right Term 91; Alternative 5b (Shared Water Shortage Provision Alternative) would require all water users to reduce their use during drought conditions. (DSR, p. 7.2.3.) The DSR states only generally that Alternative 5a	The modular drought alternatives were adequately analyzed in Section 7.24.6, Modular Drought Alternatives (Alternative 5a and 5b) of the 2023 draft Staff Report. As explained in that section, these alternatives would distribute the effects of reduced Sacramento/Delta surface water supply among a larger group of surface water diverters under drought conditions (including during declared drought emergencies). This could affect Sacramento/Delta water supplies to individual water users, but the types of impacts and significance determinations would remain similar to those made without the Shared Water Shortage Provision. Modular Alternative 6a, Protection of Voluntary Agreement Flows, protect the base upon which the VA flows are intended to be added from new or expanded water diversions,

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		would “redistribute water supply impacts to some degree for individual [non project] diverters during drought conditions.” (DSR, p. 7.24-49.) Alternative 5a acknowledges “potentially significant” impacts to water supply, but the analysis is limited to the following statement that provides no meaningful information about the extent of such impacts when layered onto the impacts of the DSR’s proposed water quality objectives: Overall, changes in Sacramento/Delta water supply could occur at times when the Shared Water Shortage Provision is in effect and could result in potentially significant impacts. If implemented in combination with the proposed Plan amendments, other flow alternatives, or proposed VAs, the Shared Water Shortage Provision Alternative could affect Sacramento/Delta water supplies to individual water users, but the types of impacts and significance determinations would remain similar to those made without the Shared Water Shortage Provisions. (DSR, p. 7.24-51.) Alternative 5b would significantly expand the circumstances in which water supplies are unavailable in the Sacramento River and Delta, and it is misleading and disingenuous for the DSR to minimize the severity of those incremental impacts by stating merely that they would be “similar” to those made without the provisions in place. Alternatives 5a and 5b would significantly expand and exacerbate the already significant and unavoidable environmental and economic impacts of the DSR’s proposed water quality objectives and related flow-based alternatives. The DSR fails to adequately describe or quantify the impacts of these alternatives, either individually or cumulatively.	consistent with the VA Term Sheet and MOU, which states “The Parties propose to, and anticipate that, the State Water Board will use its legal authorities to protect all flows generated by actions identified in Appendix 1 against diversions for other purposes for the term of the VAs.” Please see Common Response 7.24, Alternatives Analysis, for more information on the description and analysis of the alternatives.
260	73	[ATT 2] Modular Alternative 6a (Protection of Voluntary Agreement Flows Alternative), which is identified for potential implementation with the Voluntary Agreements Alternative, would have clearly foreseeable, widespread and likely devastating environmental and economic impacts, which the DSR fails to describe or minimizes. The stated purpose of the alternative is to protect Voluntary Agreement flows, although it is not clear how that would happen:	The CEQA and economic analysis of Alternative 6a can be found in Section 9.9, Modular Alternatives for Proposed VAs, of the 2023 draft Staff Report. As explained in that section, the environmental and economic impacts and effects are not evaluated further because there would not be a change from baseline, but it could constrain future surface water development and limit future economic growth to some extent.

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		Modular Alternative 6a, Protection of Voluntary Agreement Flows, would identify as part of the program of implementation additional measures to protect the base upon which the VA flows are intended to be added from new or expanded water diversions. Specifically, any new point of diversion of water or expanded point of diversion of water would not be authorized to divert water during the January through June time period unless Delta outflows were at levels determined in the State Water Board's 2017 Scientific Basis Report, or future equivalent analyses, to provide conditions expected to result in the recovery of a wide array of native fish and wildlife species. The Delta above Collinsville already is included in the State Water Board's list of Fully Appropriated Streams (FAS) from June 15 through August 31. This FAS listing would also be proposed to be expanded to include September through December except during high-flow events defined as the wettest 5 percent of historical hydrologic conditions. This alternative could also include an exception for de minimis diversions. (DSR, p. 7.2-16.) It is not clear whether Alternative 6a would be implemented regardless of attainment of Delta outflows identified in the 2017 Scientific Basis Report, through expansion of the FAS listing, or whether the FAS expansion would occur only if the Delta outflow conditions are not met. It is also unclear whether the alternative is limited to the described expansion of the FAS listing, or if it includes the unidentified "additional measures" that would be deferred to the program of implementation. What is clear is that Alternative 6a would limit future development (including due to the cumulative impact from constrained groundwater pumping under SGMA) and, notably, prevent projects critical to water resiliency in a hotter, drier climate, including, but not limited to, wastewater recycling and new reservoir storage. Severely limiting when water will be available for storage eliminates critical flexibility needed to make new storage projects viable and is likely to disincentivize or curtail altogether new investment in new storage or recycling projects, due to their limited yield. The DSR acknowledges that there would be policy implications of this approach but fails to describe how this	Alternative 6a could be partially implemented through expansion of the FASS listing, but additional measures would be needed to fully implement this alternative. Alternative 6a would protect VA flows by limiting new diversions that could have the potential to divert VA flows. Please see Common Response 1.1, General Comments, regarding consistency with other laws, policies, and agreements; Common Response 1.3, Revised Proposed Plan Amendments, for information on the provision to protect the flow base from new water supply projects; and Common Response 1.2, Water Quality Control Planning Process, for information on housing.

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		alternative would conflict with State housing policy, water recycling policy, and strategies in the Newsom Administration's 2020 Water Resilience Portfolio. [Footnote 13: See https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/Final_California-Water-Resilience-Portfolio-2020_ADA3_v2_ay11-opt.pdf .] Specific objectives of the Water Resilience Portfolio that would be thwarted by Alternative 6a include, but are not limited to, objectives to "maintain and diversify water supplies," and to "build connections" by "improv[ing] physical infrastructure to store, move, and share water more flexibly." (2020 Water Resilience Portfolio, p. 5.)	
260	74	[ATT 2] E. The Modeling Used to Analyze the Temperature Impacts of the Objectives Improperly Presents Results That Incorporate Mitigation, Thereby Failing to Disclose the Full Scope of the Effects Before imposing mitigation that reduces a project's impacts, the EIR must disclose the full magnitude of the impacts. (Lotus v. Dept. of Transportation (2014) 223 Cal.App.4th 645, 657-658 (Lotus).) The DSR's temperature modeling violates this disclosure requirement of CEQA. The temperature modeling results include both carryover storage targets and buffer pools that are intended to offset the impacts of the proposed Inflow Objective on the reservoirs' cold water pools needed to support downstream fisheries. (DSR Appen. A1, pp. A1-10 – A1-11, A1-13 – A1-17.) The actual temperatures of the releases that would occur under the proposed Inflow Objective in summer and fall without these offsetting measures are not disclosed. Thus, the DSR has improperly conflated the temperature impacts analysis with the measures proposed to mitigate those impacts, thereby obfuscating the full scope of the temperature impacts associated stemming from the proposed Inflow Objective, in violation of CEQA. (Cf., Lotus, supra, at p. 657 [failure "to discuss the significance of the environmental impacts apart from the proposed 'avoidance, minimization and/or mitigation measures' and thus fail[ure] to consider whether other possible mitigation measures would be more effective" created a "structural deficiency" that rendered the EIR invalid].)	The cold water habitat objective and its associated implementation measures are part of the proposed project, along with increased inflow objectives. Please see Common Response 1.3, Revised Proposed Plan Amendments, for details on the cold water habitat objective and implementation measures. Carryover storage requirements are the primary mechanism for meeting the cold water habitat objective of the proposed Plan amendments and the regulatory pathway of the revised proposed Plan amendments, along with possible alternate protective measures (including measures to install and operate temperature control devices, measures to provide for passage above dams, and other measures). Section 6.2, Unimpaired Flow Scenario Assumptions, of the 2023 draft Staff Report discusses carryover storage in adequate detail for the purposes of the analysis. Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report describes cold water habitat objectives in sufficient detail for the purposes of the analysis. As discussed in Chapter 13, Revised Proposed Plan Amendments, in response to comments citing Lotus v. Dept. of Transportation, the State Water Board has removed cold water habitat objective implementation measures from the list of mitigation measures contained in Appendix H3, Mitigation Measures for the Revised Proposed Plan Amendments, as these measures are part of the proposed project itself, not mitigation of its potential impacts. Also see Chapter 13 and Common Response 1.3, for further discussion of the cold water habitat objective and its implementation.

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		[T]his shortcutting of CEQA requirements subverts the purposes of CEQA by omitting material necessary to informed decision-making and informed public participation. It precludes both identification of potential environmental consequences arising from the project and also thoughtful analysis of the sufficiency of measures to mitigate those consequences. (Id. At p. 658.)	
260	75	[ATT 2] F. The DSR Significantly Understates the Economic Impacts of the Proposed Unimpaired Flow-Based Objectives and the Related Flow-Based Alternatives (Alternatives 2, 3, 4 and 5) The DSR assumes that the massive and widespread water supply reductions to municipal water users resulting from the proposed unimpaired flow-based water quality objectives [Footnote 14: The referenced proposed Objectives are those defined and described in the DSR's Chapter 5.] and related proposed flow-based alternatives can be mitigated through increased transfers of water from agricultural users. This assumption is unreasonable and lacking in evidentiary support, both as to the availability of transfers and the likely cost of transfer water. Evidence submitted to the State Water Board by Darren Cordova at MBK Engineers, [Footnote 15: See Cordova, D., MBK Engineers, CEQA Comment Letter – Sacramento/Delta Staff Report (Jan. 19, 2024), at pp. 12-13 (see Appen. 7 [ATT 7] provided herewith).] and by agricultural water rights holders who have historically transferred water to municipal users during dry and drought periods (e.g., Yuba Water Agency, Butte Water District, South Feather Water & Power Agency) demonstrates that if the proposed Plan amendments, or other unimpaired flow alternatives, are adopted, agricultural users will be far less likely to continue to engage in water transfers and may cease transfers altogether. Even if transfer water were available, the DSR significantly underestimates the likely costs of transfers under the proposed unimpaired flow-based objectives, and thus underestimates the magnitude and extent of those proposed Objectives' economic impacts. The DSR's economic impact analysis (section 8.5) assumes municipalities will be able to purchase transfer water at	As discussed in Section 6.6.1.2, Water Transfers, it is difficult to predict with certainty how reduced Sacramento/Delta surface water supplies will affect water transfers. With new instream flow and cold water habitat requirements, overall supplies of water from the Sacramento/Delta will be reduced. This may result in less water available for transfer. At the same time, it could incentivize transfers as the value of transfer water increases, leading to transfers from lower value temporary crops to higher value municipal uses and permanent crops. Forecasting future water prices is complex, requiring knowledge and information regarding supply alternatives, future demand and market conditions, and behavior of willing sellers and buyers in response to market conditions. There is no economic model available that estimates how the water transfer market will respond to long-term changes in water supply. The analysis in Chapter 8, Economic Analysis and Other Considerations, assumes that there could be greater demand pressure in the water transfer market such that future prices may be higher than recent historical trends. For the purposes of the municipal water supply economic effects analysis presented in Section 8.5, Municipal Water Supply Economic Effects, future transfer prices are assumed to be \$500 per AF for transfers to the Bay Area, \$500 per AF for transfers to the Central Coast, \$500 per AF for transactions to and within the San Joaquin Valley region, and \$750 per AF for transfers to the Southern California region. These assumed water transfer prices used in the Staff Report were higher than historical averages for all water year types, which is an appropriate and conservative assumption for the analysis. The analysis provided in the Staff Report is appropriately detailed for the scope of the project. The information provided by the commenter does not necessitate

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		\$500 per AF. This assumption is inaccurate and does not reflect likely transfer water pricing under the proposed unimpaired flow-based objectives. Those proposed Objectives would create a perpetual “drought” condition for agricultural water users. Under multiple dry year conditions, not only are transfers far less common, but the cost of transfer water increases, as transferring parties have less water to transfer and the impact to the transferring party is much greater.	changes to the municipal water supply economic analysis. Please see Common Response 8.1, Economic Analysis and Other Considerations, for a discussion on the feasibility of water transfers as an alternate supply source under the flow scenarios. In addition, the municipal water supply economic analysis presented in Section 8.5, Municipal Water Supply Economic Effects, recognizes that there is some uncertainty in estimating the marginal cost associated with shifting water sources within existing water portfolios or obtaining water from other sources. The costs 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 replace the reduction in the Sacramento/Delta water supply. A water provider’s actual cost most likely would fall between the lower and upper bound. This estimated range of possible effects further represents a conservative approach to the analysis.
260	76	[ATT 2] Very recent experience proves this point. The year 2022, a critically dry year in which agricultural water users with the most senior water rights saw their supplies reduced by up to 82% of normal, provides a more relevant example of the likely price of transfer water under the conditions that would exist under the proposed unimpaired flow-based, as do prices in 2015 and 2021. In those years, transfer costs to buyers ranged anywhere from approximately \$800 AF (2015) to more than \$1,000 AF (2022), net, after accounting for carriage water losses, the cost of which is absorbed by the transferee. [Footnote 16: See Appen. 7, pp. 12-13.] Contrary to the DSR’s assumptions, substantial evidence demonstrates that transfers are unlikely to be available, and even if available, will cost substantially more than assumed in the DSR. By incorrectly assuming that transfer water would be generally available, and by underestimating the likely cost of such water, the DSR minimizes the severity of the proposed Plan amendments’ economic impacts, particularly to municipal water users, and the impacts to the development of new and affordable housing, including impacts to economically disadvantaged communities.	Please see response to Comment 260-75 for response related to water transfers. The Staff Report appropriately discloses 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. The analysis presented in Section 8.5, Municipal Water Supply Economic Effects, estimates the potential costs to affected municipal service providers of securing reliable water supplies, with the focus on (1) increased cost of meeting the same demand through development of other water supplies; (2) the opportunity cost of lost supply if no other supply sources are available; or (3) cost of meeting the same demand using other water supplies already being used by municipalities within existing water portfolios. Staff Report Section 8.5, Municipal Water Supply Economic Effects, and Appendix D, Supplemental Municipal Supply Analysis Information, provide additional information about the analysis of municipal water supply economic effects.

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			The Staff Report appropriately acknowledges the potential municipal water supply economic effects on DACs. Section 8.5.9, Economically Disadvantaged Communities and Drinking Water, acknowledges that DACs may be more vulnerable than other municipalities and cities to impacts on surface and groundwater supplies. 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 applicable 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, and other means. Chapter 8, Economic Analysis and Other Considerations, also summarizes potential sources of funding for municipal water supply and conservation. These and other funding sources could potentially be leveraged to help municipal water suppliers and end users maximize the use of their water supplies. Please see Common Response 8.1, Economic Analysis and Other Considerations, for additional and updated information on potential sources of funding for municipal conservation and alternate water supplies. Section 13241 of the Porter-Cologne Act identifies certain factors that must be evaluated when establishing water quality objectives. The factors are an inherent part of the analyses presented for decision-makers to understand the impacts not only on the environment but also on other beneficial uses, economics, and other important considerations like the human right to water. Section 1.2, Organization of the Staff Report, in the 2023 draft Staff Report provides a list of the primary locations where this information can be found in the 2023 draft Staff Report. Section 13.6.2, Water Code Section 13241 Analysis, also provides a list of the primary locations where this information can be found in the Staff Report. Please see Common Response 1.2, Water Quality Control Planning Process, for a discussion on

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			the factors to be considered in establishing water quality objectives, including the need for developing housing. The revised proposed Plan amendments were developed to improve flow and water quality conditions over a large geographic area, and particularly for fish and wildlife beneficial uses in the Sacramento River watershed, Delta eastside tributaries, and Delta regions (Sacramento/Delta). The State Water Board recognizes that providing instream flows for the environment necessarily results in less water available for other uses. Providing balanced protection of all beneficial uses of water is incredibly important and requires careful consideration, and the State Water Board is sensitive to municipal supply impacts. Provisions for adaptive implementation of the numeric inflow requirements are provided to optimize flows to benefit native fish and wildlife while also minimizing water supply impacts, and for the numeric inflow requirements to be implemented in a coordinated fashion with the cold water habitat and inflow-based Delta outflow requirements. The environmental analyses evaluate a complete range of impacts in the event that water users do not utilize adaptive implementation, as well as the potential impacts from implementation of adaptive implementation. 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. In addition, the program of implementation contains human health and safety and other appropriate provisions to address human health and safety needs and other possible reasons for short-term and long-term exceptions to curtailments associated with implementation of the Bay-Delta Plan for specific purposes. Those purposes include provisions to allow continued diversions for minimum human health and safety water supplies where alternate supplies are not available. Those provisions may be informed by other relevant regulatory efforts in order to provide for consistency as appropriate.

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260	77	[ATT 2] G. The DSR Inadequately Analyzes the Proposed Inflow and Cold Water Habitat Objectives' Impacts on Agriculture in the Sacramento River Watershed and Especially Its Regionally Dominant Rice Industry The DSR's analysis of the proposed Inflow and Cold Water Habitat Objectives' agricultural impacts on the Sacramento River watershed's dominant rice industry is wholly inadequate.	Please see the response to comment 260-32.
260	78	[ATT 2] 1. The DSR's Agricultural-Impacts Analysis of the Proposed Inflow and Cold Water Habitat Objectives Fails to Satisfy CEQA Because It Obscures Those Objectives' Impacts on the Sacramento River Watershed's Dominant Crop of Rice The DSR and its agricultural appendix, Appendix A3, correctly recognize that rice is the dominant crop in the Sacramento River watershed; that the methods for irrigating rice are different than those for other crops; and that the watershed's rice acreage can vary based on, among other factors, drought. (DSR, pp. 7.4-15 – 7.4-16; DSR Appen. A3 at p. 8 [unlike other crops, rice “does not have operational spills and lateral losses”].) For example, the DSR and its Appendix A3 state that: - Rice acreage averaged 500,000 acres in the Sacramento River watershed in the 2011-2016 period, while no other cultivated crops exceeded 198,000 acres. (DSR, p. 7.4-15, Table 7.4-4.) - “In the Sacramento/Delta, rice and field crop acreage decreased substantially in 2014 and 2015 as the drought persisted....” (DSR, p. 7.4-16.) - Rice involves about 32% of average annual agricultural water use in the “Sacramento/Delta” area and its baseline applied water requirements in that area are 2.6 MAF per year, while no other individual crop exceeds 784,742 AF per year and the collection of “Other Deciduous” crops are the next highest applied water demand at about 1.4 MAF per year. (DSR, p. 7.4-42, Figure 7.4-8; DSR Appen. A3 at p. A3-15, Table A3-10.) - If a 55% of unimpaired flow requirement were implemented under the proposed Inflow and Cold Water Habitat Objectives,	Please see the response to comment 260-32. The combination of results for the Sacramento/Delta watershed does not diminish or hide any analysis or results for rice in the Sacramento Valley region. To the contrary, as cited by the comment, the Staff Report provides detail regarding the large proportion of irrigated rice in the region, and the potential reductions in rice acreage can be easily discerned to occur primarily in the region where that acreage dominates. Providing instream flows for the environment necessarily results in less water available for other uses. It is also logical that reduced water supply will affect the most dominate crop but incorrect to describe that as a “disproportionate” impact. The consideration of water supply reductions is evaluated extensively in the Staff Report, including effects on irrigated rice in the Sacramento Valley region.

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		annual water supply reductions in the “Sacramento/Delta” area would reach 810,000 AF in dry years and 1.2 MAF in critical years—nearly half of rice’s applied water requirements in that area. (DSR, pp. 7.4-43 – 7.4-44.) - “Because [rice] is a comparatively lower revenue crop, does not tolerate deficit irrigation, and occupies a large proportion of the crop category acreage, changes in water supply would likely affect a larger proportion of rice acreage.” (DSR, p. 7.4-48.) These factors, as described in the DSR and its relevant appendix, indicate that the rice industry in the Sacramento River watershed likely would suffer disproportionate impacts under the proposed Inflow and Cold Water Habitat Objectives. The DSR’s agricultural-impact analysis, however, amalgamates the Sacramento River watershed, the Eastside tributaries, and the Delta into a single combined “Sacramento/Delta area,” and thus does not actually disclose the impacts that the proposed Objectives would have on the Sacramento River watershed’s dominant rice industry. The DSR therefore fails the basic test of a CEQA document because it fails to disclose to the public the impacts that the proposed Inflow and Cold Water Habitat Objectives actually would have.	
260	79	[ATT 2] The DSR could—and should—have disclosed the impacts that those proposed Objectives would have on the Sacramento River watershed’s dominant rice industry. The DSR specifically calls out the impacts that the proposed Objectives would have on agriculture in the Delta, so it should be possible for the DSR to analyze regions within the broader “Sacramento/Delta” area it selected for most analyses. (See DSR, p. 7.4-51.) Indeed, the DSR’s agricultural-impact discussion relies on Statewide Agricultural Program (SWAP) model results and that model apparently produces crop-specific results for areas that include components of the Sacramento River watershed, namely “SWAP production regions” 1 through 7. (DSR, pp. 7.1-13, Table 7.1-1 [describing models used by DSR, including SWAP model for “Agricultural and Forest Resources”], 7.4-34 – 7.4-35; DSR Appen. A3 at p. A3-6, Table A3-3.) DSR Appendix A3 contains pages of SWAP model results that depict acres of many crops, including rice, in various hydrologic scenarios and	The analysis provided in the Staff Report is appropriately detailed for the scope of the project. Section 7.4.3, Impact Analysis, of the 2023 draft Staff Report, presents the potential change in irrigated acreage across ten crop groups (including rice) as a result of reductions in agricultural water supply under each flow scenario. Section 8.4.2, Agricultural Economic Effect, presents the estimated reduction in crop revenues and discusses the potential effects on the associated farm-dependent industries, including the rice industry, under each flow scenario. Please see the response to comment 260-32 for additional discussion on the potential economic effects on the rice industry as modeled by SWAP.

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		allocated among SWAP regions. (DSR Appen. A3 at pp. A3-27 – A3-34, Tables A3-17 – A3-40.) Nowhere, however, does the DSR collect this information into a comprehensible analysis of the impact that the proposed Inflow and Cold Water Habitat Objectives would have on the Sacramento River watershed’s dominant crop in that watershed. Even if the data to support such an analysis might be present somewhere in the DSR and its appendices, that alone is not sufficient to satisfy CEQA’s disclosure requirements: The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. [I]nformation scattered here and there in EIR appendices, or a report buried in an appendix, is not a substitute for a good faith reasoned analysis.... [Citation.] (Vineyard Area Citizens, supra, 40 Cal.4th at p. 442, internal quotes omitted.)	
260	80	[ATT 2] 2. The DSR Fails to Present Any Realistic Analysis of the Proposed Inflow and Cold Water Habitat Objectives’ Impact on Rice Production Because the DSR Explicitly Does Not Consider the Objectives’ Impacts on Water Supplies for Rice Decomposition As the DSR states, there are two distinct seasons during which surface water is delivered to rice fields, one of which is in the fall for post-harvest decomposition of rice straw: Timing of water delivery for some crops, such as rice, is important. Water is delivered to rice crops initially in spring to flood the fields, around April after the fields have been prepared for planting, throughout the season as needed for maintenance for an approximately 120-day flooding season, and again during fall after rice has been harvested (Hill et al. 2006; California Rice Commission 2017). Rice fields are flooded during fall so that the rice straw can decompose. The flooding and decomposition have the dual benefit of preparing the field for subsequent planting and providing habitat for wildlife species, including waterfowl	Section 7.4.2.6, Sacramento River Watershed, discusses the timing of water delivery for crops in the Sacramento River watershed, including flooding in the spring so that rice straw can decompose, and the timing of those water deliveries reflected in the model output. Please see Common Response 7.4, Agricultural Resources, for information on water supply for rice straw decomposition and additional techniques available to farmers for straw removal.

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		migrating through the Pacific Flyway, such as ducks and geese. (NCWA n.d.; California Rice Commission 2017). (DSR, p. 7.4-17, emphasis added.) Rice decomposition water supplies are critical for the Sacramento River watershed's dominant rice industry to function because a 1991 state law prohibits the prior widespread decomposition method, namely burning of the post-harvest straw. The Connelly-Areias- Chandler Rice Straw Burning Reduction Act of 1991, as amended, drastically limited the burning of rice straw, which UC Davis experts called, in a 1993 article, "the principal disposal method for most of the industry's 80-year history." (Blank et al., Incorporating rice straw into soil may become disposal option for growers, Cal. Agriculture (July-August 1993), p. 8.) [Footnote 17: A copy of this article is attached as Appendix 8 [ATT 8].] The 1991 law remains in place as Health and Safety Code section 41865. As the DSR itself indicates, the post-harvest flooding of rice fields in the fall has become the primary major alternative method for disposing of rice straw as result of the 1991 state law. Fall rice decomposition is therefore a critical element of the entire rice production cycle, so reductions in water supplies to support that decomposition could disrupt the entire rice industry in the Sacramento River watershed.	
260	81	[ATT 2] The DSR's agricultural-impacts analysis for the proposed Inflow and Cold Water Habitat Objectives, however, depends on a model that does not consider rice decomposition. The DSR explicitly states that the SWAP model does not consider reductions in water supplies for rice decomposition. The DSR states that its analysis of agricultural impacts "on the valley floor portion of the Sacramento/Delta" relies on the SWAP model: The evaluation of impacts on agriculture involves using surface water delivery estimates from SacWAM as inputs. Estimates of surface water deliveries to growers within the Sacramento/Delta are provided by SacWAM in sufficient detail that the output can be directly mapped into the SWAP production regions.... Further details are provided in Appendix A3, Agricultural Economic	Please see the response to comment 260-80 and Common Response 7.4, Agricultural Resources, for a detailed discussion on water supply for rice straw decomposition.

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		Analysis: SWAP Methodology and Modeling Results. In this way, changes in agricultural water deliveries, the use of water, and the crop acreage and crop mix in the other regions can be analyzed. (DSR, p. 7.4-35; see also DSR, p. 7.1-13, Table 7.1-1 [describing models used by DSR, including SWAP model for “Agricultural and Forest Resources”].) As the DSR’s Appendix A3 concerning the SWAP model admits, however, that model does not consider impacts of reduced water supplies for rice decomposition in any way because such supplies “are not used to meet the evapotranspiration requirements of the crop.” (DSR Appen. A3 at p. A3-8.) Specifically, Appendix A3 states: In the Sacramento Valley, annual agricultural surface water supply deliveries to each SacWAM WBA [water budget area] were obtained by subtracting groundwater deliveries from SacWAM surface water supply deliveries for each model year from 1923 through 2015. In addition, only the irrigation season surface water deliveries for rice were included in the water supply inputs for SWAP. SacWAM estimates surface water deliveries to rice crops in the winter for field flooding, but these deliveries are not included in the SWAP water supply inputs because they are not used to meet the evapotranspiration requirements of the crop. After these adjustments to the SacWAM results were made for each WBA, they were aggregated to the SWAP production regions. (DSR Appen. A3 at p. A3-8, emphasis added.)	
260	82	[ATT 2] Because the SWAP model fails to consider water supplies for rice decomposition, the DSR’s agricultural-impact analysis excludes any consideration of a critical stage of rice’s production cycle. State law essentially prohibits the prior method by which the watershed’s rice farmers historically disposed of rice straw, and now the DSR apparently excludes from any consideration the replacement method that those farmers now use. It is at best unclear how those farmers would continue to grow rice at all if, as a result of the proposed Inflow and Cold Water Habitat Objectives’ implementation, their rice decomposition water	Please refer to the response to comment 260-80 for further discussion of water supply for rice straw decomposition. In addition, Section 7.6.1, Terrestrial Biological Resources, of the 2023 draft Staff Report acknowledges that changes in water supply could result in decreased acreage of post-harvest flooding of rice fields, which provide wetland habitat for migratory waterfowl and shorebirds. Because these diversions can occur under lower priority water rights during fall compared to water supplied under higher priority water rights and contracts during

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		supplies were eliminated or significantly reduced. The DSR appears to provide no explanation or any discussion of the resulting agricultural impacts, and related terrestrial habitat impacts, in the Sacramento River watershed.	the spring and summer, the flow scenarios could potentially result in reduced water supplies for fall rice straw decomposition unless these diversions occur during the settlement contract season or other water supplies are used. Section 7.6.1 appropriately identifies that these impacts would be potentially significant.
260	83	[ATT 2] Because the DSR excludes from the SWAP model's analysis any consideration of reduced water supplies for rice decomposition, the DSR's analysis of the proposed Inflow and Cold Water Habitat Objectives' impacts on the Sacramento Valley watershed's agricultural industry significantly understates or otherwise ignores the scope of the proposed Objectives' impacts. Based upon the foregoing discussion, these impacts would include, but are not limited to, reduced winter flooded habitat for waterfowl, and increased costs to growers if they are required to chop and disk more intensively to incorporate the rice straw into the soil.	Please refer to the response to comment 260-80 and Common Response 7.4, Agricultural Resources for information about water supply for rice straw decomposition.
260	84	[ATT 2] 3. The DSR's Analysis of the Proposed Inflow and Cold Water Habitat Objectives' Impact on Rice Production Is Inadequate Because the SWAP Model Does Not Analyze Impacts in Critical Years Themselves, Multi-Year Droughts, or Similar Water-Supply Shortages That Those Objectives Could Create According to the DSR and its Appendix A3, the SWAP model produces results for "average" years and "dry" years, with the "dry" year category having a SWAP-specific definition. Appendix A3 states: Description of Water Year Types For this analysis, average surface water deliveries for average and dry water years from SacWAM were applied in SWAP. Surface water deliveries during the average water year were calculated as the average of all years over the 1923-2015 SacWAM simulation period. Dry year deliveries were estimated as the average of dry and critical classified years as classified by the Sacramento Valley 40-30-30 Water Year Hydrological Index (Sacramento Index) over the 1923-2015 simulation period. (DSR Appen. A3 at p. A3-8, emphasis added; see also DSR, p. 7.4-	Given the inherent uncertainties involved in modeling agricultural impacts, the Staff Report uses a reasonable and conservative approach to evaluating potential agricultural impacts of the flow scenarios. The analysis of potential changes in crop acreage presented in Section 7.4, Agriculture and Forest Resources, and potential changes in crop revenue presented in Chapter 8, Economic Analysis and Other Considerations, include 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. In addition, the Staff Report notes that impacts on agriculture and agricultural economic effects in any particular year may be greater or less than the SWAP model results for the "Dry Year" condition. Please see Common Response 7.4, Agricultural Resources, and Common Response 8.1, Economic Analysis and Other Considerations, for additional information on the SWAP model, agricultural impacts, and agricultural economic effects. In addition, to respond to comments received on the SWAP analysis presented in the Staff Report, supplemental SWAP

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		35 [also describing SWAP model's "dry" years].) This definition of "dry" years in the SWAP model means that the model, and therefore the DSR's agricultural impact analysis, fails to analyze and describe the proposed Inflow and Cold Water Habitat Objectives' impacts in the most serious conditions, namely critical water years and especially multi-year droughts. The DSR itself demonstrates that the proposed Objectives' impacts to rice production might be significantly higher in single critical years than in single dry years. The DSR's Table 7.4-15 indicates that, if a 55% of unimpaired flow requirement were implemented under the proposed Objectives, annual water supply reductions in the "Sacramento/Delta" area would be 50% higher in critical years than in dry years, reaching 810,000 AF in dry years and another 400,000 AF higher—to 1.2 MAF—in critical years. (DSR, p. 7.4-44, Table 7.4-15.) By averaging dry and critical dry years, the DSR minimizes the enormous disparities in reduced water supplies between these two conditions. As such, the DSR fails to disclose the reasonably foreseeable magnitude of the Objectives' impacts during critical water years.	model runs were conducted for: (1) critically dry water years; and (2) the driest water year (1977) intended to represent the last year of a multi-year drought. The supplemental SWAP model results for critically dry water years and for the driest water year (1977) intended to represent the last year of a multi-year drought are presented in Common Response 7.4, Agricultural Resources, for changes in crop acreage, and in Common Response 8.1, Economic Analysis and Other Considerations, for the corresponding changes in crop revenue. Overall, these supplemental SWAP results provide additional information requested by commenters, but are consistent with the analyses already presented. The 2023 draft Staff Report already identifies potentially significant impacts on agricultural production and identifies adverse agricultural economic effects, and these additional analyses do not change the conclusions of the environmental and economic analyses presented in the Staff Report.
260	85	[ATT 2] In addition, because the SWAP model averages the proposed Objectives' impacts in dry and critical years, it cannot capture the severe impacts those Objectives would have in multi-year droughts, which often involve consecutive critical years. (See Department of Water Resources, Chronological Reconstructed Sacramento and San Joaquin Valley Reconstructed Water Year Hydrologic Classification Indices, accessed at https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST, showing history of consecutive dry and critical years in Sacramento Valley, including most recently, 2020-2022 [3 years]; 2013-2015 [3 years]; 2007-2009 [3 years]; and 1987-1992 [6 years].) The DSR itself acknowledges how multi-year droughts can be particularly difficult times for the rice industry: Farm acreage and crops grown can and do vary from year to year... The acreage over time demonstrates that cropping patterns are not static, as growers respond to commodity markets and prices, long-term market trends, and hydrologic	Please see the response to comment 260-84.

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		conditions (i.e., droughts or water supply). In the Sacramento/Delta, rice and field crop acreage decreased substantially in 2014 and 2015 as the drought persisted.... (DSR, p. 7.4-16, emphasis added.)	
260	86	[ATT 2] Moreover, the DSR does not consider the unprecedented conditions the rice industry experienced in 2022 as the third consecutive year of a drought. In 2022, the rice industry experienced unprecedented reductions in water supplies. For example, conditions were so dry that the Sacramento River Settlement Contractors received only 18% of their contract supplies, rather than the 75% contract supplies provided under those contracts during “Shasta critical years.” The resulting enormous impacts to the Sacramento River watershed’s rice industry have been well documented by, among others, experts at the University of California (UC). For example, a report to the California Department of Food and Agriculture prepared by, among others, experts from UC Davis, UC Merced, and the Public Policy Institute of California stated the following about the impacts to the rice industry in 2022: [B]y far the largest single change [statewide] was crop idling for rice in the Sacramento Valley, which saw a reduction of about 270,000 acres relative to recent historic acreages of roughly 550,000 acres.... (Medellin-Azuara et al, Economic Impacts of the 2020-2022 Drought on California Agriculture, Prepared for the California Department of Food and Agriculture (Nov. 2022), p. 2.) [Footnote 18: A copy of this report is attached hereto in Appendix 9 [ATT 9]; the report is also available at https://wsm.ucmerced.edu/wp-content/uploads/2022/11/Economic_Impact_CA_Drought_V01.pdf.] During 2022 the largest rice production regions of the state (Sutter, Colusa and Glenn counties) were the most affected, increasing the idle rice from 123 thousand acres in 2021 to 267 thousand acres in 2022. (Id., pp. 13-14.)	Please see response to comment 260-32 for discussion on the potential economic effects on the rice industry as modeled by SWAP. Given the inherent uncertainties involved in modeling agricultural impacts, the Staff Report uses a reasonable and conservative approach to evaluating potential agricultural impacts of the flow scenarios. SWAP is the best available, peer reviewed model for estimating the effects associated with changes in water supply on agricultural production in the Central Valley. In addition, the Staff Report notes that the impacts to agriculture and agricultural economic effects in any particular year may be greater or less than the SWAP model results for the “Average Year” and “Dry Year” condition. However, in response to comments received on the SWAP analysis presented in the Staff Report, supplemental SWAP model runs were conducted for: (1) critically dry water years; and (2) the driest water year (1977) intended to represent the last year of a multi-year drought. The supplemental SWAP model results are presented in Common Response 7.4, Agricultural Resources, for changes in crop acreage, and in Common Response 8.1, Economic Analysis and Other Considerations, for the corresponding changes in crop revenue. Overall, these supplemental SWAP results provide additional information requested by commenters, but are consistent with the analyses already presented.

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260	87	[ATT 2] Those impacts include not just reduced acreage and income for the farmers themselves, but, as documented by UC Davis experts, the entire economies that depend on those farmers' rice production: Industries that supply goods and services to farm and ranch operations lose sales and profits and their workers lose jobs when farm output falls due to drought. Such businesses include local repair shops, fertilizer firms, insurance companies or law offices that work with farms and ranches. These indirect effects reflect losses of output jobs, labor income and value added of Sacramento Valley businesses that rely on farm and ranch customers... [There is] lost output, jobs and income in all sectors affected by lost agricultural incomes (mainly reduced incomes of labor and those contributing labor, management and capital). This includes the reductions in goods and services that farmer and farm worker families buy in the Sacramento Valley. The ripple effects of such purchases include everything from haircuts to autos and schooling. (Sumner & Matthews, Continued Drought in 2022 Ravages California's Sacramento Valley Economy (May 11, 2022), pp. 8-9.) [Footnote 19: A copy of this paper is attached hereto in Appendix 10 [ATT 10]; the report is also available at https://norcalwater.org/wp-content/uploads/Sumneretal.DroughtSacramentoValley.may2022.pdf?mc_cid=23df042c76&mc_eid=0f6d9b75db.] Because the SWAP model's "dry" year analysis only averages the impacts that the proposed Inflow and Cold Water Habitat Objectives would have in dry and critical water years, it simply fails to consider, analyze, or disclose the impacts that those proposed Objectives' implementation would have on the Sacramento River watershed's dominant rice industry in multi-year droughts. For example, that analysis apparently does not consider the possibilities that: (a) through water supply reductions imposed under those proposed Objectives, more typical dry years could involve water supply shortages, reductions in rice production, and greater economic impacts similar to those that occur in critical years, as in the unprecedented drought year of 2022; and (b) the proposed	Please see response to Comment 260-32 for discussion on the potential economic effects on the rice industry as modeled by SWAP. Please see response to Comment 260-84 for additional information about the SWAP model and supplemental SWAP modeling conducted for a critical year model run and for a driest hydrologic conditions model run intended to serve as a proxy for multi-year drought conditions.

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		Objectives could generate a cycle in which impacts to businesses that support rice production could reduce the economic base for that production and cause that production to be reduced in all years. The DSR's discussion of these ripple effects instead appears to be merely qualitative and blithely states that, "[u]nder the highest flow scenarios, it is possible that some rice milling facilities could cease operations." (DSR, p. 8-80.)	
260	88	[ATT 2] As a result of the SWAP model's consideration of the proposed Objectives in "dry" years only as an average of dry and critical water years, the DSR's statement that the "SWAP model runs capture a range of possible conditions, including the worst case for agricultural impacts" is simply not accurate. (See DSR, p. 7.4-53.) A mere two years ago, the Sacramento River watershed experienced a much worse scenario, and one that, economically, the proposed Objectives' implementation could cause to frequently recur by imposing water supply reductions through regulation similar to those imposed by the drought conditions in 2022.	Please see the response to comment 260-84.
260	89	[ATT 2] 4. The Deficiencies in the DSR's Analysis of the Proposed Inflow and Cold Water Habitat Objectives' Agricultural Impacts Do Not Cause Its Analysis of the Healthy Rivers Agreements to Be Inadequate The DSR's analysis of any agricultural impacts that the Healthy Rivers Agreements alternative would have appears to employ the same "Sacramento/Delta" regional definition and the same SWAP model that the DSR's analysis of the proposed Inflow and Cold Water Habitat Objectives employs. (DSR, pp. 9-87 – 9-90.) The DSR's analysis of any agricultural impacts that the Healthy Rivers Agreements alternative would have, however, is adequate because of the terms contained in the alternative. That alternative involves defined contributions of water toward Bay-Delta conditions in defined water year types, and includes limitations on the amount of rice acreage that can be fallowed to support those contributions. (DSR, pp. 9-4 – 9-6, 9-88 – 9-90.) By definition and design, the potential for very significant impacts on rice production in the Sacramento River watershed, and the very wide range of those impacts' significance, does not exist for the Healthy Rivers Agreements. As the DSR states, potential reductions in agricultural acreage under the Healthy 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.

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		Agreements alternative would be less than 1%. (DSR, pp. 9-87 – 9-90.) This finding is consistent with the fact that the Healthy Rivers Agreements fundamentally are based on well-defined proposed operations that build on existing water management within the Sacramento River watershed.	
260	90	[ATT 2] H. The DSR's Hydrological, Environmental, and Economic Analysis of the Impacts of the Proposed Inflow and Cold Water Habitat Objectives Is Inadequate Because It Does Not Address or Disclose Those Impacts in Multi- Year Droughts Multi-year droughts recur in California. Such droughts occurred in the periods 1929- 1934, 1976-1977, 1987-1992, 2007-2009, 2012-2016, and 2020-2022. (DWR, California's Most Significant Droughts: Comparing Historical and Recent Conditions (Jan. 2020), pp. 12-13 (DWR 2020); [Footnote 20: Available at https://water.ca.gov/-/media/DWR-Website/Web-Pages/What-We-Do/Drought- Mitigation/Files/Publications-And-Reports/CalSigDroughts19_v9_ay11.pdf (last visited Jan. 18, 2024).] State Water Board Resolution No. 2022-0028, p. 3, ¶ 15.) During the 2014-2015 and 2021-2022 droughts, the State Water Board approved emergency regulations under which it imposed various water right curtailments. (See State Water Board Resolution Nos. 2014-0031, 2021-0023, 2021-0028, 2021-0029, 2022-0016, 2022-0025, 2022-0028.) Both state law and the State Water Board's general policies recognize the importance of planning for droughts. The Urban Water Management Planning Act requires urban water suppliers to plan for droughts lasting at least five years. (Wat. Code, §§ 10631, subd. (b)(1), 10635, subd. (a).) The Agricultural Water Management Planning Act requires agricultural water suppliers to plan for droughts. (Wat. Code, § 10826.2; see also DSR, p. 6-95.) The State Water Board's 2017 resolution stating its "Comprehensive Response to Climate Change" emphasizes the importance of planning for droughts. (State Water Board Resolution No. 2017-0012, at pp. 1, 3.) The impacts of multi-year droughts extend beyond water planning. For example, the California Independent System Operator identified reduced hydroelectric production as a result	The commenter is incorrect to suggest that the Staff Report defers the required disclosures and analysis of impacts in multi-year droughts. SacWAM simulated water management of the Sacramento Valley and Delta using the historical hydrology from October 1921 through September 2015 to represent the range of possible hydrologic conditions and the relative frequency of wet and dry years. Inputs were extended through water year 2021, and this period captures a wide range of conditions, including periods of severe drought cited by the commenter. Water supply, including supplies from the Sacramento/Delta watershed, is evaluated extensively throughout the Staff Report. 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. Both the inflow requirements and carryover storage assumptions for cold water habitat are reflected in the model results for changes in supply. 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. The water supply impacts to municipal users are presented in Section 7.20, Utilities and Service Systems, and to agriculture in Section 7.4, Agriculture and Forest Resources, with additional qualitative analyses for multiple dry years. In addition, the draft Staff Report presented a modular drought alternative for consideration that included two variations that could help to address limited water supplies during drought. Please see Common Response 4.2, Drought and Climate Change, for a discussion on multi-year droughts and their analysis in the Staff Report.

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		of ongoing drought conditions as playing “a key role” in causing the electrical emergency that California experienced in September 2022. (CAISO, Summer Market Performance Report (Sept. 2022), pp. 12, 21, 28-32.) [Footnote 21: Available at https://www.caiso.com/Documents/SummerMarketPerformanceReportforSeptember2022.pdf (accessed Dec. 27, 2023). Cited excerpts are provided as Appendix 11 [ATT 11].] The DSR similarly recognizes the importance of droughts in California water management. For example, it states: “[r]ecent droughts have prompted concerted conservation efforts” and that “climate change is already bringing ... longer and more severe droughts that present challenges for water supplies.” (DSR, pp. 5-67 – 5-68.) The DSR further discusses how multi-year droughts present unique water-management challenges. For example, the DSR’s Chapter 5 states: - “During recent droughts, the current minimal [Delta water quality] objectives were not met and temperature management concerns were significant, frequently resulting in poor conditions for native fish and wildlife.” (DSR, p. 5-8.) - “[T]emperature 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.” (DSR, p. 5-21.) The DSR also proposes that voluntary implementation plans under new proposed objectives would need to include “provisions to address droughts” and “[m]easures to plan for and effectively protect aquatic beneficial uses during sustained dry conditions, including droughts,” and that default implementation measures under the proposed Inflow Objective would “address droughts.” (DSR, pp. 5-10, 5-12, 5-19, 5-31, 5-68.)	
260	91	[ATT 2] Moreover, the DSR proposes two “Modular Drought Alternatives” as Alternatives 5a and 5b. (DSR, p. 7.24-46.) Chapter 7.24 generally describes those two proposed alternatives as follows: Alternative 5a (Instream Flow Protection Provision) would build	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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		upon recent drought-related curtailments under emergency regulations that required water right holders to curtail their water diversions when no water was available at their priority of right. Alternative 5b (Shared Water Shortage Provision) would require all water users in the Sacramento/Delta watershed to conserve water during times of drought in order to contribute toward meeting the Bay-Delta Plan objectives, including instream flows, cold water habitat, and salinity control. (DSR, p. 7.24-46.)	
260	92	[ATT 2] Notwithstanding how state law, State Water Board policy, and the DSR itself recognize the importance of planning for multi-year droughts, the DSR's hydrological and environmental analysis of the proposed Inflow and Cold Water Habitat Objectives does not analyze their impacts in such droughts. For example, the DSR's Chapter 6 presents the SacWAM hydrologic modeling of the proposed Objectives' implementation and discusses: - Changes in river flows in percentile or exceedance terms, and states that the extreme ends of the resulting ranges "are less informative in the context of anticipated changes in hydrology" (DSR, pp. 6-9 – 6-10); - Delta outflow changes in terms of water-year types (critical, dry, below normal, above normal, wet), with the results for each year type being an average of all results for that type (see, e.g., DSR pp. 6-26 – 6-28, Tables 6.3-1 – 6.3-2); [Footnote 22: The DSR uses the five water year types defined for the Sacramento Valley: [A]verage values by water year type are presented when relevant, particularly for water supply results. In the presentation of results, unless otherwise noted, water year type is defined by the Sacramento Valley historical classification system which includes five water year types in ascending levels of water availability: critical (C), dry (D), below normal (BN), above normal (AN), and wet (W). (DSR, p. 6-3.)] - Reservoir storage levels in monthly averages and percentile or exceedance terms (DSR, pp. 6-37 – 6-50 [Table 6.3-6 – 6.3-11, Figures 6.3-26 – 6.3-31]); and	Please see the response to comment 260-90. The full text from Chapter 6, Changes in Hydrology and Water Supply, of the 2023 draft Staff Report states "The maximum and minimum monthly streamflow values represent extreme single events (0th and 100th percentiles, or the minimum and maximum monthly flows modeled) rather than streamflows that occur under typical hydrologic conditions (e.g., not extremely wet or extremely dry conditions) and therefore are less informative in the context of anticipated changes in hydrology." Referring to the 0th and 100th percentiles, the Staff Report describes these as extreme single events. However, this does not discredit the use of percentiles or ranges for analyzing impacts under drier (e.g., drought) conditions as the Staff Report states in the same paragraph, "Discussions of hydrology in the following section generally focus on the drier (near 25th percentile), median (50th percentile), and wetter (near 75th percentile) conditions as the best representation of typical hydrologic patterns." Please also see Common Response 8.1, Economic Analysis and Other Considerations, for additional discussion of potential economic effects related to multi-year drought. Please also see Common Response 7.20, Utilities and Service Systems, for discussion on the environmental analysis and changes in water supply along with discussion on availability of municipal water and alternative water supplies. Please see Common Response 7.8, Energy and Hydropower, for a discussion on peaking power and drought conditions.

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		- Changes in regional water supplies in annual averages, averages by water year-type and annual ranges (DSR, pp. 6-54 – 6-79 [Tables 6.4-1 – 6.4-26, Figures 6.4-1 – 6.4-14]). Those SacWAM results then provide the basis for the DSR's analysis of the proposed Objectives' effects in many resource categories, as presented: SacWAM scenarios described in this chapter are presented as a range of potential instream flow changes in increments of ten, from 35 percent up to 75 percent unimpaired flow (referred to as scenarios or flow scenarios). These modeled scenarios are later grouped into three alternatives, with each alternative encompassing a range of percent unimpaired flow. The three alternatives are then compared to baseline conditions in the environmental analysis (Chapter 7) of this Staff Report in order to evaluate the potential environmental impacts associated with the proposed Plan amendments. (See DSR, p. 6-1.) An overarching problem with the DSR's approach, though, is that it obscures and does not discuss the proposed Inflow and Cold Water Habitat Objectives' impacts in the multi-year droughts when their hydrologic, environmental, economic, and other impacts probably would be the most severe. Specifically, the DSR does not discuss how those proposed Objectives' implementation would impact streamflows, water temperatures, reservoir levels, water supplies, hydroelectric generation, and other environmental and economic factors in the sort of multi-year droughts that recur in California.	
260	93	[ATT 2] The DSR's analysis of the proposed Objectives' impacts in critical water years is not a substitute for an analysis of the impacts in multi-year droughts. As discussed above, the DSR's analysis of the proposed Objectives' impacts averages those impacts across all critical years. The DSR's analysis of those impacts in percentiles, or exceedance curves, of all years' results mixes results for many non-consecutive years. For example, the results for 1975 and 2020 can be next to each other in an	Please see the response to comment 260-90.

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		exceedance curve, or in the same percentile group, if those results are numerically similar. The DSR's analyses, therefore, do not capture the compounding hydrological, environmental, and economic impacts that the proposed Objectives would have in consecutive critical years.	
260	94	[ATT 2] As discussed above, however, California often has experienced consecutive critical, or at least very dry, years in the form of multi-year droughts. For example, contrary to the DSR's analytical approach, California generally does not experience individual critical years whose particular effects can be averaged. For example: (1) the 1976-1977 drought involved what was, as of 2020, the 12th driest year of record followed by the driest year of record (DWR 2020, p. 50); (2) the 2012-2016 drought set "records for driest consecutive four years of statewide precipitation (2012-2015)" (id., p. 75); and (3) according to the State Water Board, in the 2020- 2022 period, "[t]he Delta watershed [experienced] three consecutive extremely dry years," with "January to March of 2022 [being] among the driest winter periods on record for California." (State Water Board Resolution No. 2022-0028, p. 3, ¶ 15.) In California, people and the environment tend to experience consecutive very dry years during droughts, so, in reality, impacts cannot be averaged, but rather tend to compound. The most significant drought-related impacts that the DSR's analytical approach concerning critical years obscures are the impacts on reservoir storage and dependent conditions like downstream water temperatures for fish, surface-water supplies for agricultural and municipal use, and hydroelectric generation. The DSR presents the impacts of the proposed Inflow and Cold Water Habitat Objectives in terms of end-of-April storage and end-of-September storage for the following reasons: The end-of-April values are presented to represent the storage at the end of the wet season going into the irrigation season. The end-of-September values were chosen to represent carryover storage because they are at the end of the dry season and prior to the typical onset of fall precipitation. Without carryover storage, a dry year or series of dry years could leave reservoirs empty, or with no water remaining to meet outflow and	Please refer to Common Response 4.2, Drought and Climate Change, related to how multi-year droughts are included in the Staff Report. The effect of the severe drought years can be evaluated by looking at the distribution of results to see results for periods with lowest storage, lowest flows, and highest temperatures (e.g., 10th and 90th percentiles). Chapter 6, Changes in Hydrology and Water Supply, is not the only discussion related to effects of the cold water habitat objective. There are temperature assessments in Appendix A6, Water Temperature Modeling and Fish Assessment for the Sacramento, Feather, and American Rivers, and Appendix H1b, Water Temperature Modeling and Fish Assessment for the Sacramento, Feather, American, and Yuba Rivers, that discuss effects of temperature on various life stages of various species on each tributary modeled by HEC-5Q. These evaluations factor in consecutive and long-term droughts by quantifying the amount of time and magnitude that temperatures are not ideal for various fish species and life stages. Please also see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for a discussion on implementation of the cold water habitat objective and how the revised proposed Plan amendments could be implemented.

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		downstream temperature requirements. While greater levels of carryover storage increase certainty of supply and downstream control, they leave less space to capture additional water during the wet season. (DSR, p. 6-37.)	
260	95	[ATT 2] In order to attempt to maintain carryover storage with the proposed Objectives, the DSR's SacWAM modeling appears to impose end-of-September storage requirements on reservoirs, including Folsom and New Bullards Bar. (DSR, p. 6-37 ["cold water requirements"]; DSR Appen. A1, pp. A1-10 – A1-11 [discussing modeled carryover storage targets].) In fact, for New Bullards Bar, that modeling appears to impose a carryover storage requirement that is 100,000 AF—about 10% of the reservoir's total capacity—higher than the current target. (See DSR Appen. A1, p. A1-285, Figure A1-134 [showing "baseline" end-of-September storage target of 650,000 AF and with-project target of 750,000 AF].) The DSR admits that the net effect of these measures is to significantly constrain reservoir operations: Operations of the rim reservoirs are increasingly constrained under the modeled scenarios because new instream flow requirements limit the ability to store water in spring and cold water pool requirements limit how far rim reservoirs can be drawn down in the drier years. In general, this results in lower storage at the end of April entering the irrigation season, and less total water being released in summer months. (DSR, p. 6-37.) [Footnote 23: DSR similarly states the following in the summary of environmental analysis in Chapter 7.1: "operations of the rim reservoirs are increasingly constrained under the percent of unimpaired flow scenarios, and particularly the higher percents of unimpaired flow, because new instream flow requirements would limit the ability to store water in the winter and spring, and cold water pool requirements would limit how far rim reservoirs can be drawn down in the drier years." (DSR, p. 7.1-16.)]	Figure A1-134 does not depict the carryover storage targets. The figure contains the cumulative distribution of resulting September storages. The 650 TAF for baseline and 750 TAF for the scenarios are the buffer set in SacWAM that attempts to increase storage in wetter years when it is possible to meet all demands in order to improve water supply deliveries and increase carryover storage in following years, thus reducing the frequency of going below the actual carryover target range between 400 TAF to 550 TAF. Setting the buffer to lower than 750 TAF would result in increased frequency of going below the carryover target. Appendix H1a, Sacramento Water Allocation Model Methods, describes the updated inputs and modeling used for the revised proposed Plan amendments. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, related to SacWAM modeling and how buffers are used to attain carryover storage targets. Please see Chapter 13, Revised Proposed Plan Amendments, Appendix H1a, Sacramento Water Allocation Model Methods, and Appendix H1a1, Assessment of Effect of Reservoir Storage on Reservoir Release Temperatures, for a description of the revised proposed Plan amendments, updates to SacWAM, and the assessment of effect of reservoir storage on reservoir release temperatures.

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260	96	[ATT 2] The DSR's modeling results for Folsom and New Bullards Bar show just how significant the proposed Objectives' impact would be on reservoir operations. For Folsom, at the very dry 10% exceedance level with a 55% of unimpaired flow requirement, end-of-April storage would be reduced by 72,000 AF—over 7% of the reservoir's total capacity. (DSR Appen. A1, p. A1-244, Table A1-198.) At the dry 25% exceedance level, the end-of-April reduction would be 123,000 AF—over 12% of the reservoir's total capacity. (DSR Appen. A1, p. A1-244, Table A1-198.) With the 55% of unimpaired flow requirement, Folsom's end-of-September storage actually would be higher than in the baseline at those exceedance levels, but only because the DSR's SacWAM modeling assumes that releases from Folsom would be significantly reduced between April and September. Folsom releases between April and September, however, support, among other important values, juvenile steelhead, which are present in the lower American River year-round and which are listed as threatened under the federal Endangered Species Act. (DSR, pp. 7.6.2-6 – 7.6.2-9 [list of special status fish species, including Central Valley steelhead], 7.6.2-76 – 7.6.2-78.) [Footnote 24: The DSR's temperature modeling indicates that a 55% of unimpaired flow requirement, if implemented under the proposed Inflow and Cold Water Habitat Objectives, would cause worse summer temperatures for rearing juvenile steelhead in the American River. (DSR, pp. 7.6.2-76 – 7.6.2-78; DSR Appen. A6, pp. A6-373 – A6-388 [Tables A6-208 – A6-213].)] For New Bullards Bar, at the very dry 10% exceedance level with the 55% of unimpaired flow requirement, end-of-April storage would be reduced by 126,000 AF—over 12% of the reservoir's capacity. (DSR Appen. A1, p. A1-286 [Table A1-281].) That would be 126,000 AF less water to release to support downstream fish and water supplies for farmers, as well as to generate hydroelectricity in a drought year. The end-of-September storage in the 55% of unimpaired flow scenario would only be 34,000 AF lower in the very dry 10% exceedance level, but that presumably is because—consistent with the above quote from the DSR—the SacWAM modeling assumes that the State Water Board would attempt to compel Yuba Water Agency (YWA) to hold more water	Please see response to comment 260-94 related to multiyear droughts and implementation of the cold water habitat objective. Please also refer to Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for responses to comments that raise issues about the modeling assumptions and water allocations in SacWAM related to carryover storage.

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		in New Bullards Bar than YWA otherwise would have released to support fish, farmers, and hydroelectric generation. Nowhere, however, does the DSR analyze what the impacts of constraining the operations of Folsom, New Bullards Bar, and other reservoirs in this way would be in consecutive very dry years—namely, during multi-year droughts. The DSR thus does not even disclose how the proposed Inflow and Cold Water Habitat Objectives’ impacts on reservoir storage and dependent environmental and economic values would compound in droughts like those that California has experienced several times in the last 100 years. This omission from the DSR renders its analysis of those proposed Objectives’ impacts inadequate under both CEQA and Porter-Cologne.	
260	97	[ATT 2] While all of the DSR’s SacWAM modeling appears to take a similar analytical approach, that approach is problematic only in relation to the proposed set of water quality objectives that include the proposed Inflow and Cold Water Habitat Objectives. The problem does not extend to the proposed “Voluntary Agreement” terms discussed in the DSR’s Chapter 9. That is because those terms, including the associated proposed Narrative Viability Objective, build on existing operations and therefore do not involve the same wide range of uncertainty or the same application over all possible hydrological conditions as would occur with the Inflow and Cold Water Habitat Objectives under the proposed Plan amendments.	Water rights subject to the VA pathway would not be required to meet the numeric inflow and cold water habitat requirements and are therefore not modelled as such. Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for more discussion on implementation of the cold water habitat objective. The revised proposed Plan amendments include a provision requiring that the VA pathway be implemented in a manner to improve temperatures to the extent possible and avoid redirected impacts to water temperatures. As part of the annual and periodic review processes, the HRL participants will be required to report on measures they have undertaken to address temperature impairments in their stream systems in coordination with HRL implementation measures. Information regarding temperature effects, as well as other effects of the VA pathway on the protection of native fish and wildlife, will inform decisions regarding continuation, modification, or termination of the VA pathway overall and for individual HRL components.
260	98	[ATT 2] MBK Engineers’ Technical Review of the DSR and its Modeling Information Confirms the Inadequacies and Defects of the Proposed Plan Amendments, Including the Proposed Inflow and Cold Water Habitat Objectives MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK’s resulting	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.

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		analysis and findings. [Footnote 25: A copy of MBK's technical report is included in Appendix 6 [ATT 6] and is incorporated herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - Significant, real-world adverse impacts would result from implementation of the proposed Inflow Objective with its unimpaired flow requirement of 45 to 65%.	
260	99	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 25: A copy of MBK's technical report is included in Appendix 6 [ATT 6] and is incorporated herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - The real-world adverse impacts of an unimpaired flow requirement of 45 to 65% will exacerbate the effects of climate change, and such impacts are not evaluated in the DSR.	Please see Common Response 4.2, Drought and Climate Change, regarding the evaluation of climate change.
260	100	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 25: A copy of MBK's technical report is included in Appendix 6 [ATT 6] and is incorporated herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - The lack of an implementation plan and the wide range of potential actions for the proposed Plan amendments make it extremely difficult to understand the impacts of the proposed Plan amendments on reservoir operations, river flows, water deliveries, and Delta outflow.	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the program of implementation; and Common Response 7.1, General CEQA and Approach to the Analysis. Please refer to 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 of the 2023 draft Staff Report for more information related to the proposed plan amendments related to inflow and cold water habitat objectives.
260	101	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 25: A copy of MBK's technical report is included in Appendix 6 [ATT 6] and is incorporated	Please see the response to comment 260-90.

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		herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - The DSR does not provide information on the impacts the unimpaired flow requirements during multi-year drought periods.	
260	102	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 25: A copy of MBK's technical report is included in Appendix 6 [ATT 6] and is incorporated herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - The DSR describes several modular alternatives but provides limited model results for only one modular alternative and relies on qualitative descriptions for the other modular alternatives, making it impossible to understand the magnitude and location of potential impacts associated with the modular alternatives.	Please see Common Response 7.24, Alternatives Analysis, regarding the presentation and evaluation of alternatives.
260	103	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 25: A copy of MBK's technical report is included in Appendix 6 [ATT 6] and is incorporated herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - Differences in how the proposed unimpaired flow requirements and proposed Cold Water Habitat Objective are modeled on different river systems within the Sacramento Valley result in disproportionate impacts within the Sacramento Valley, North and South of Delta, and between the CVP and SWP.	As shown in Chapter 2, Hydrology and Water Supply, of the Staff Report, some tributaries are currently more impaired than others and therefore require greater increases in streamflow from baseline to meet the unimpaired flow requirements, affecting diversions differently for different tributaries. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply regarding CVP allocations and obligations. Additionally, some reservoirs are operated closer to the carryover storage values estimated to protect cold water habitat under the existing conditions than other reservoirs. As a result, less of a change is required on the tributaries where these reservoirs are located, and therefore the impacts may be smaller.
260	104	MBK Engineers (MBK) performed a thorough and detailed technical review of the DSR and its related modeling information and prepared a technical report setting forth MBK's resulting analysis and findings. [Footnote 25: A copy of MBK's technical	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations and obligations.

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		report is included in Appendix 6 [ATT 6] and is incorporated herein by reference.] MBK's key findings related to the inadequacies and defects of the proposed Plan amendments are summarized as follows: - SacWAM model results demonstrate that unimpaired flow requirement scenarios include model operations that are inconsistent with Reclamation policies and contract obligations. The failure to accurately simulate Reclamation policies and contract obligations results in modeled water supply impacts and associated reservoir operations that are inconsistent with actual system operations.	
260	105	[ATT 3: Appendix 3—Email from Northern California Water Association to State Water Resources Control Board dated July 27, 2018 Re: Comments of Northern California Water Association and Sacramento Valley Water Users on Proposed Amendments to the Water Quality Control Plan for the San Francisco Bay/San Joaquin Delta Estuary and Supporting Environmental Document (Lower San Joaquin River)]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
260	106	[ATT 4: Appendix 4—Email from Northern California Water Association to State Water Resources Control Board dated November 9, 2017 Re: Phase II Bay-Delta Plan Input Pursuant to October 4, 2017 Notice; Final Phase II Scientific Basis Report]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
260	107	[ATT 5: Appendix 5—Email from Northern California Water Association to State Water Resources Control Board dated March 17, 2017 Re: Comments on Revised Substitute Environmental Document – Potential Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality Objectives]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
260	108	[ATT 6] I. Overview MBK was tasked with a technical review of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento- San Joaquin Delta Estuary for the Sacramento River and its Tributaries, Delta Eastside Tributaries, and Delta (DSR) and associated modeling. This report is a	Please refer to Common Response 7.1, General CEQA and Approach to the Analysis, for more information on how the Staff Report meets CEQA requirements. Also see Common Response 7.24, Alternatives Analysis, for a discussion of the environmentally superior alternative.

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		summary of the technical review and key findings. Sections and Key Findings This report is organized into four sections. The first section makes direct comparisons between results for the Agreements to Support Healthy Rivers and Landscapes (VA Alternative) and the 55% Unimpaired Flow (UIF) scenario. The "Agreements to Support Healthy Rivers and Landscapes" is the updated name and reference for the "Voluntary Agreements" or "VA's" as described and detailed in the DSR Chapter 9 and Appendix G. The comparisons use information from the DSR and the Sacramento Water Allocation Model (SacWAM) and temperature model results received from State Water Resources Control Board (SWRCB) staff. The DSR contains most of the results presented in the first section but summarizes the results in separate chapters and sometimes in different ways that make direct comparisons challenging. The key finding from the first section of this report is as follows: Analysis contained in the DSR demonstrates that the VA Alternative provides more benefits with less impacts than the Proposed Plan Amendments. [Footnote 1: For purposes of this report, "Proposed Plan Amendments" (PPA) includes an inflow objective from the Sacramento River and Delta tributaries to the Delta at 55% of unimpaired flow, within an allowed adaptive range between 45 and 65% of unimpaired flow (DSR, 5-17}. The PPA also includes a narrative cold-water habitat objective to ensure there are no redirected impacts on cold water habitat from the inflow and Delta outflow objectives and to address temperature management concerns on the tributaries (DSR, 5-22}.]	
260	109	[ATT 6] The second section of this report summarizes the results of independent modeling of the VA Alternative completed by the California Department of Water Resources (DWR) using the CalSim 3.0 model. Other than the use of different models, the key difference between the modeling conducted by DWR and the modeling presented in the DSR using SacWAM is that the DWR modeling contains consistent assumptions for the regulatory requirements governing Delta exports between the DWR	Staff Report Chapter 9, Proposed Voluntary Agreements, Section 9.5.2, VA Modeling Approach, describes several modeling scenarios for the VA proposal. The scenarios that were included to evaluate January through June Delta outflows provided a higher bookend of possible Delta outflows under the VAs in recognition that the VAs are intended to protect both VA flows as Delta outflows, and flows that may be provided by implementing the 2018 LSJR objectives. The two additional scenarios for the

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		baseline and the DWR VA Alternative. Maintaining consistent assumptions for areas that are not part of the alternative being analyzed is the standard practice in the engineering profession. The key finding from the second section of this report is as follows: Separate modeling of the VA Alternative, performed by DWR, wherein the regulatory requirements remain consistent with those in the DWR baseline, show significantly more Delta outflow with the VA Alternative as compared to results set forth in the DSR. Analysis of the VA Alternative benefits that are based on Delta outflow are underestimated in the DSR. Our review of the CalSim 3.0 modeling does not indicate there would be any new or more severe environmental impacts of the VA Alternative than contained in the DSR.	benefits analysis include a factor to eliminate differences between the 2008-2009 BiOps and 2019 BiOps conditions between DWR's CalSim II systems operations modeling and SacWAM. As such, State Water Board Staff conducted, to the best of their ability, analysis to make modeling scenarios as comparable as possible. Please also see Staff Report Chapter 9, Section 9.3.6, Points of Comparison for VA Flow Assets. Please also see Common Response 6.2, Baseline and No Project Alternative, for a discussion of the baseline and the VA analysis.
260	110	[ATT 6] The third section of this report describes unavoidable impacts of UIF requirements with California's current hydrology and how those impacts will exacerbate the impacts of climate change. The key findings of the third section of the report are as follows: There are significant, real-world adverse impacts that would result from implementation of an unimpaired flow requirement of 45 to 65%.	The impacts of the flow scenarios were analyzed in Chapter 7 of the 2023 draft Staff Report. Please see Common Response 4.2, Drought and Climate Change, for discussion of climate change.
260	111	The real-world adverse impacts of an unimpaired flow requirement of 45 to 65% will exacerbate the effects of climate change and are not evaluated in the DSR.	Please see the response to comment 260-110.
260	112	[ATT 6] The fourth section of this report describes key information that is missing from the DSR, in addition to the effects of climate change that were not evaluated as indicated above. The primary missing information is an implementation plan to describe how the PPA will be implemented in combination with the cold water habitat objective. The key findings of the fourth section of the report are as follows: The lack of an implementation plan and the wide range of potential actions for the Proposed Plan Amendments make it extremely difficult to understand the impacts of the Proposed Plan Amendments on reservoir operations, river flows, water deliveries, and Delta outflow.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report includes detailed sections on implementation of the inflow and cold water habitat objectives that provide the information necessary for the Staff Report impact analyses. The impacts to reservoir operations, river flows, water deliveries, and Delta outflow were evaluated in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis, of the Staff Report. Please see Common Response 1.3, Revised Proposed Plan Amendments, for responses to comments on the regulatory pathway implementation of the cold water habitat and inflow objectives. Please also see Common Response 4.2, Drought and Climate Change. Also see Common Response 7.1, General CEQA

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			and Approach to the Analysis, for more information on the CEQA analysis.
260	113	The DSR does not provide information on the impacts of UIF requirements during multi-year drought periods.	Please see the response to comment 260-90.
260	114	The DSR describes several modular alternatives but provides limited model results for only one modular alternative and relies on qualitative descriptions of effects for the other modular alternatives.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report described how the proposed Plan amendments (including the cold water habitat objective) would be implemented. Please see Common Response 1.3, Revised Proposed Plan Amendments, for more information on the revised proposed Plan amendments. The modular alternatives were analyzed in Staff Report Section 7.24, Alternatives Analysis, and Section 9.9, Modular Alternatives for Proposed VAs. See Common Response 7.24, Alternatives Analysis, for more information on the analysis of alternatives.
260	115	[ATT 6] The final section is a summary of the findings of a technical review of SacWAM modeling for the UIF scenarios based on a review of the model results. Supporting information for the following key findings are contained in the final section of this report: Differences in how the UIF requirements and narrative cold water habitat objective are modeled on different river systems within the Sacramento Valley result in disproportionate impacts within the Sacramento Valley, North and South of Delta, and between the CVP and SWP. SacWAM model results demonstrate that UIF scenarios include model operations that are inconsistent with U.S. Bureau of Reclamation policies and contract obligations. A failure to accurately simulate Reclamation policies and contract obligations result in modeled water supply impacts and associated reservoir operations that are inconsistent with actual system operations.	Please see the response to comment 260-103 concerning the different outcomes on different tributaries. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations and obligations.
260	116	[ATT 6] The PPA is the other primary alternative discussed in this report. As noted above, the PPA includes an inflow objective from the Sacramento River and Delta tributaries to the Delta at 55% of unimpaired flow, within an allowed adaptive range between 45 and 65% of unimpaired flow (DSR, 5-17). The PPA also includes a narrative cold-water habitat objective to ensure	Please see Chapter 13, Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report for the analysis of the 55 w/WSAs scenario representative of the revised proposed Plan amendments' initial implementation action for inflow requirements.

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		there are no redirected impacts on cold water habitat from the inflow and Delta outflow objectives and to address temperature management concerns on the tributaries (DSR, 5-22). The cold-water habitat objective would apply on all Sacramento/Delta tributaries that support or contribute to protection of salmonids and other native, cold-water fish species (DSR, 5-22). There is no single model simulation that represents the PPA in the DSR. The DSR contains results from analyses of discrete UIF percentages across a range of 35 to 75% UIF, paired with other modeling assumptions to simulate the narrative cold water habitat objective. There is no single model simulation that includes a range of UIF requirements that is adaptive to different conditions or meeting different objectives. For comparison with the VA Alternative and to illustrate differences, results from the 55% UIF scenario are presented in this report because this scenario represents the default UIF requirement under the PPA.	
260	117	[ATT 6] II. VA Alternative: More Benefits with Less Impacts Analysis contained in the DSR demonstrates that the VA Alternative provides more benefits with less impacts than the Proposed Plan Amendments. The DSR analyzes the benefits and impacts of the Agreements to Support Healthy Rivers and Landscapes as the "VA Alternative." Results for the VA Alternative are contained in DSR Chapter 9 and the Final Scientific Basis Report Supplement that is Appendix G2 to the DSR. The DSR also presents SacWAM and other model results of analysis of unimpaired flow requirements at discrete percentages in combination operational assumptions for the cold water habitat objective. The DSR does not include direct comparisons of benefits and impacts for the VA Alternative and percent UIF scenarios. The following sections provide a direct comparison of results for these two alternatives. The figures and tables presented are results contained in the DSR and references to where the information can be found are provided. Results for the 55% UIF scenario are presented and assumed to be representative of the	Please see Common Response 7.24, Alternatives Analysis, for a discussion of the environmentally superior alternative. The benefits and impacts are available for the proposed Plan amendments and the proposed VAs in Chapters 7, Environmental Analysis, and 9, Proposed Voluntary Agreements, respectively. The analyses have been further refined in Chapter 13, Revised Proposed Plan Amendments.

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		PPA because that scenario is described as the default flow requirement within the adaptive range. (DSR, 5-17).	
260	118	[ATT 6] Tributary Salmonid Habitat The VA Alternative provides more salmonid benefits on the tributaries than the 55% UIF scenario, increases habitat to address limiting factors, and provides benefits across all water year types by making efficient use of existing flows and the VA flow assets. The DSR includes a summary of results for both the VA Alternative and 55% UIF scenario for salmonid habitat on tributaries of the Sacramento River and Delta. This information is contained in Chapter 3, tables 3.14-8 (spawning) and 3.14-9 (rearing), for the UIF scenarios, and Chapter 9, tables 9.6-1 (spawning) and 9.6-2 (rearing), for the VA Alternative. For both the VA Alternative and UIF scenarios the analysis started with SacWAM modeling of flows and included subsequent analyses of depth, velocity, and temperature to evaluate suitable habitat during the seasons for each salmon run and habitat type. Results for the UIF scenarios are presented as median acres (figures) and percent change (tables) in habitat across 21 watersheds for fall-run Chinook salmon and four watersheds for spring-run Chinook salmon. Results for the VA Alternative are presented as median acres for the baseline and with VA. Results from the tables in Chapter 9 of the DSR were used to calculate the percent change in suitable habitat as acres with VA minus baseline acres divided by baseline acres for a direct comparison with UIF scenario results. Figure 1 [ATT 6 Exhibit 1] is the percent change in suitable salmonid spawning and rearing habitat for the VA alternative and the 55% UIF scenario on the Sacramento Valley rivers included in the VA Alternative. Results in Figure 1 show larger percent changes in suitable salmonid spawning and rearing habitat on the American, Feather, Sacramento, and Yuba rivers with the VA Alternative as compared to the 55% UIF scenario. Spawning habitat more than doubles on the American River and approximately triples on 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 3.1, Fish Protection, for instructions on interpreting the results of the habitat analyses.

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		Sacramento River under the VA Alternative. Rearing habitat improvements under the VA exceed those under the 55% UIF scenario by at least a factor of two (Feather) and often significantly more (American, Sacramento, and Yuba). Figure 1 does not include changes on all watersheds included in tables for the UIF scenarios or across the range of UIF contained in the PPA. Moreover, Figure 1 does not include changes on the Calaveras River where the DSR results show the 55% UIF scenario would increase spawning and rearing habitat by 16% or on Clear Creek where rearing habitat increases by 4%. Additionally, the results for the VA Alternative do not include 20,000 acres of floodplain restoration in the Sutter Bypass that will provide rearing habitat for fish from the Feather and Sacramento rivers (DSR, 9-76).	
260	119	[Exhibit 1 of ATT 6: Graph titled Figure 1. Change in Median Salmonid Spawning and Rearing Habitat with VA and 55% UIF Alternatives]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	120	[ATT 6] The DSR provides additional details on the percent increases in tributary salmonid habitat with the VA Alternative in Appendix G2, the Supplement to the Scientific Basis Report, tables 6-1 and 6-2. Figure 2 and Figure 3 summarize the median percent increase from these tables for spawning and rearing habitat, respectively. Results summarized in these two figures illustrate two key points regarding the VA Alternative. First, the VA Alternative strategically addresses the specific needs of each tributary. For example, spawning habitat is not a limiting factor on the Yuba River and therefore VA habitat projects focus on additional rearing habitat on that system. Second, VA habitat projects provide benefits across the range of existing flows, including years without VA flow contributions. The result is an efficient use of existing flows to increase salmonid habitat in all years.	Please see Common Response 3.1, Fish Protection, for instructions on interpreting the results of the habitat analyses. 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.
260	121	[Exhibit 2 of ATT 6: Graph titled Figure 2. Percent Change in Tributary Spawning Habitat by Water Year Type with VA Alternative]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.

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260	122	[Exhibit 3 of ATT 6: Graph titled Figure 3. Percent Change in Tributary Rearing Habitat by Water Year Type with VA Alternative]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	123	[ATT 6] Temperature Management The VA Alternative will have less impact on the ability to manage water temperature below reservoirs as compared to the 55% UIF scenario. Summaries of the simulated changes in water temperature between the Baseline and UIF scenarios and the Baseline and VA Alternative are included in DSR Appendix A6 and DSR Appendix G3E, respectively. The model outputs summarized in these appendices for the Sacramento and Feather rivers were provided by SWRCB staff and used to generate the following figures [Exhibit 4, Exhibit 5, Exhibit 6, and Exhibit 7 of ATT 6]. These figures illustrate the changes from the baseline in average monthly water temperature by water year type at locations on the Sacramento and Feather rivers downstream of the major reservoirs and regulating reservoirs on both rivers. Comparison of the changes in water temperatures in Figure 4 (VA Alternative) with Figure 5 (55% UIF scenario) shows that temperature increases with the VA Alternative are less than 0.5 degrees Fahrenheit for all months and water year types. Increases in water temperature under the 55% UIF scenario are one to two degrees in June and July of dry and critical years. Under the 55% scenario, the water temperature increases occur despite simulated actions that reduce reservoir releases and downstream water supplies to implement the narrative cold water habitat objective. Comparison of the changes in water temperatures in Figure 6 (VA Alternative) with Figure 7 (55% UIF scenario) shows increases with the VA Alternative are minimal in most months and water year types, but up to one to two degrees Fahrenheit in April and September of some water year types. Increases in water temperature under the 55% UIF scenario are one to four degrees from June through October of several water year types.	The Staff Report acknowledges that overall, changes in streamflows and reservoir levels would be less under the proposed VAs, and model results for the American, Feather, and Sacramento Rivers indicate that water temperature conditions under the proposed VA would be similar to baseline. 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.

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260	124	[Exhibit 4 of ATT 6: Graph titled Figure 4. Average Monthly Change in Sacramento River above Clear Creek with VA Alternative]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	125	[Exhibit 5 of ATT 6: Graph titled Figure 5. Average Monthly Change in Sacramento River above Clear Creek Water Temperature with 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	126	[Exhibit 6 of ATT 6: Graph titled Figure 6. Average Monthly Change in Feather River at Gridley Water Temperature with VA Alternative]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	127	[Exhibit 7 of ATT 6: Graph titled Figure 7. Average Monthly Change in Feather River at Gridley Water Temperature with 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	128	[ATT 6] Rice Acres and Wildlife Refuge Water Supply The VA Alternative will have less impact on the acres of rice land in production in the Sacramento River Basin than the 55% UIF scenario and no impact on wildlife refuge water supplies, unlike the 55% UIF scenario.	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.
260	129	[ATT 6] The VA Alternative for the Sacramento River Basin will make water available by idling up to 35,000 acres of rice land [Footnote 2: See footnote 6 to Table 1a in the Memorandum of Understanding Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions.] in above normal, below normal, and dry years. An estimate of the annual reduction in rice land in production under the 55% UIF scenario was developed based on reductions in SacWAM diversions to the primary rice growing areas of the Sacramento River Basin including the Sacramento River Settlement Contractors (SRSC); diversions from the Thermalito Afterbay on the Feather River; Yuba Water Agency diversions; and South Sutter Water District diversions from the Bear River. The combined reductions in simulated irrigation season diversions were divided by an approximate diversion duty of five acre-feet per acre to estimate the reduced rice acres each year. Figure 8 [Exhibit 8 of ATT 6]	See the response to comment 260-237.

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		illustrates the annual reductions in Sacramento River Basin rice acres in production for the VA Alternative and 55% UIF scenario.	
260	130	[Exhibit 8 of ATT 6: Graph titled Figure 8. Estimated Annual Reductions in Sacramento River Basin Rice Acreage]	See the response to comment 260-237.
260	131	[ATT 6] Results summarized in Figure 8 [Exhibit 8 of ATT 6] show that, under the 55% UIF scenario, rice acreage will be reduced by 150,000 to 200,000 acres or more in multiple periods of consecutive years and may reach more than 250,000 acres, similar to the reductions that occurred in 2022 on the westside of the Sacramento River. By comparison, under the VA Alternative the maximum reduction in rice acreage in production in the Sacramento River Basin in any one year is 35,000 acres.	See the response to comment 260-237.
260	132	[ATT 6] Reductions in rice acreage reduce habitat for terrestrial species in the Sacramento Valley including waterfowl and giant garter snakes (DSR, 7.6.1-54). The DSR shows additional impacts to wildlife refuge water supply under the 55% UIF scenario. Figure 9 [Exhibit 9 of ATT 6] is an annual summary of the change in wildlife refuge water supply from SacWAM model results for refuges located north and south of the Delta. The DSR includes annual average changes in refuge water supply in Table 7.6.1-5.	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 7.1, General CEQA and Approach to the Analysis, regarding the approach to the environmental analysis for the proposed VAs; and Common Response 7.24, Alternatives Analysis, regarding discussion of an environmentally superior alternative. The 2023 draft Staff Report identified and disclosed potentially significant impacts on wildlife species that rely on Sacramento/Delta water supplied to wildlife refuges and certain agricultural lands in Section 7.6.1.4, Impact Analysis. 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. 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

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			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, Changes in Hydrology and Water Supply, 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 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 Central Valley Project Improvement Act (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.
260	133	[Exhibit 9 of ATT 6: Graph titled Figure 9. Annual Change in Wildlife Refuge Water Supply from SacWAM Results]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	134	[ATT 6] Figure 9 [Exhibit 9 of ATT 6] shows that, under the 55% UIF scenario, annual reductions in refuge water supply can exceed 100 thousand acre-feet (TAF) in multiple periods of consecutive years. The VA Alternative does not result in any reductions in simulated refuge water supply. A comparison of Figure 8 [Exhibit 8 of ATT 6] and Figure 9 [Exhibit 9 of ATT 6] shows that, under the 55% UIF scenario, the largest reductions in rice acres occur in the same years as the largest reductions in wildlife refuge water supplies, compounding the impacts to terrestrial species in those years.	See the response to comment 260-132. Section 7.6.1.4, Impact Analysis, Impact TER-a of the 2023 draft Staff Report analyzed the impacts to special status species that result from the reductions in water supply to wildlife refuges and to agricultural habitat such as rice fields. The analysis of water supply changes to refuges was conducted using the SacWAM for a variety of flow scenarios and the results are shown in Table 7.6.1-5. Analyses of reductions in acreage of agricultural habitat (including rice habitat) for special status species using the SWAP model is discussed throughout the rest of the "Reduced Sacramento/Delta Supply to Refuges and Agriculture"

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			subsection. Years with greater reductions in water supply to wildlife refuges coincide with reductions in crop acreage because both impacts generally have the same impact mechanism, the overall reduction in water Sacramento-Delta supplies watershed wide.
260	135	[ATT 6] Reservoir Storage The VA Alternative better maintains the ability of reservoirs to provide multiple benefits as compared to the 55% UIF scenario. Figure 10 [Exhibit 10 of ATT 6] illustrates the probability of exceedance for end-of-May, simulated storage in Shasta, Oroville, Folsom, and New Bullards Bar reservoirs for the baseline, VA Alternative, and 55% UIF scenario. The end-of-May storage is the reservoir condition at the end of the spring period when both the VA Alternative and the 55% UIF scenario can require increased releases, and the start of the summer period when demands increase and reservoir storage is needed for water supply, temperature management, hydropower generation, and other uses. Results in Figure 10 show storage in the VA Alternative is higher at the end-of-May as compared to the 55% UIF scenario in three of the four reservoirs across the full range of conditions and approximately 90% of the time in Shasta. Under the 55% UIF scenario, end-of-May storage in both Oroville and Folsom is significantly lower than either the baseline or the VA Alternative. Tables in DSR Appendix A6 summarize the effects of higher spring releases on downstream water temperatures later in the summer. These tables include A6-25 for the Sacramento River above Clear Creek, A6-41 for the Feather River below the Thermalito Afterbay, and A6-47 for the American River at Watt Avenue. Under the 55% UIF scenario, temperature impacts on the Feather and American rivers are more pronounced with median temperatures higher than the baseline from June through February. Figure 11 [Exhibit 11 of ATT 6] provides the same probability of exceedance for end-of-September, simulated storage in Shasta, Oroville, Folsom, and New Bullards Bar reservoirs for the	Reservoir operations on different tributaries show differing results in response to the cold water habitat and the percent of unimpaired flow requirements in SacWAM because as explained in Chapter 2, Hydrology and Water Supply, some tributaries are more impaired under baseline conditions than others. Additionally, some reservoirs under baseline conditions are operated closer to the carryover storage targets identified to maintain cold water habitat than others, therefore some reservoirs required a larger change to meet the cold water habitat objective. The carryover storage requirements were not applied to the VA scenario. For a description of the VA scenario assumptions, please see Appendix G3a, Sacramento Water Allocation Model Methods and Results for the Proposed Voluntary Agreements, and Appendix H1a, Sacramento Water Allocation Model Methods. Lastly, the carryover storage targets were revised in the 2025 partially recirculated draft Staff Report based on comments and additional information provided by stakeholders. Please see Chapter 13, Revised Proposed Plan Amendments, and Appendix H1a2, Sacramento Water Allocation Model Results for Revised Proposed Plan Amendments, for updated SacWAM results.

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		baseline, VA Alternative, and 55% UIF scenario. Results for end-of-September or carryover storage show differences across the four reservoirs. Carryover storage under the 55% UIF scenario is lower than the VA Alternative approximately 60% of the time in Shasta, but higher approximately 10% of the time because of the narrative cold water habitat objective. Carryover storage in Oroville is lower approximately 50% of the time under the 55% UIF scenario. Carryover storage in Folsom is similar to baseline under both the VA Alternative and 55% UIF scenario. Carryover storage in New Bullards Bar reflects a fundamental change in the operation of that reservoir with a carryover storage target of 750 TAF in the 55% UIF scenario compared to 650 TAF in the baseline and VA Alternative.	
260	136	[Exhibit 10 of ATT 6: Four graphs titled Figure 10. End-of-May Simulated Storage in Four Major Reservoirs in the Sacramento Valley]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	137	[Exhibit 11 of ATT 6: Four graphs titled Figure 11. End-of-September Simulated Storage in Four Major Reservoirs in the Sacramento Valley]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	138	[ATT 6] Water Supply Water supply impacts of the VA Alternative are manageable and can be mitigated. The water supply impacts of the 55% UIF scenario are more than 2 million acre-feet in dry and critical years or approximately 23% of the baseline water supply in these years. The DSR includes information to summarize the water supply impacts of both the UIF scenarios and VA Alternative. This information is contained in Chapter 6, Tables 6.4-2 for the UIF scenarios, and Chapter 9, Tables 9.5-45 for the VA Alternative. These tables include the surface water supply changes within the Sacramento River/Delta area and includes areas that may be affected by the alternatives evaluated in the DSR. This is the largest geographic area where results are summarized. The DSR includes more detailed, regional results and results by	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.

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		agricultural, urban, and wildlife refuge use. Figure 12 [Exhibit 12 of ATT 6] compares the reductions in surface water supply under the VA Alternative and the 55% UIF scenario as reported in the DSR. As shown in Figure 12, the water supply impacts under the 55% UIF scenario exceed those under the VA Alternative by more than 2.1 million acre-feet (MAF) in critical and dry years, 1.8 MAF in below normal years, 1 MAF in above normal years, and 700 TAF in wet years.	
260	139	[Exhibit 12 of ATT 6: Graph titled Figure 12. Average Annual Change in Water Supply by Water Year Type for VA Alternative and 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	140	[ATT 6] Results are presented here for the largest geographic area because DSR Appendix A1 on the SacWAM model states the location of water supply impacts under the UIF scenarios may be different than SacWAM results though the overall magnitude of impacts is not expected to be substantially different (DSR Appendix A1, A1-19}. Appendix A1 states the distribution between CVP and SWP contractors and areas located north and south of the Delta may be different (DSR Appendix A1, A1-19}. The idea that the location of water supply impacts may be different than what was modeled is addressed in the subsequent section on the modeling of the UIF scenarios. The magnitude of surface water supply impacts is understated in the DSR for both the VA Alternative and the 55% UIF scenario shown in Figure 12 [Exhibit 12 of ATT 6]. The results for the VA Alternative shown in Figure 6 [Exhibit 6 of ATT 6] reflect changes in water supply from a baseline condition. Under the VA Alternative, the SacWAM model results show reductions in water supply in some areas and increases in Delta exports by the CVP and SWP, particularly in the months of April and May (see Figure 29 [Exhibit 29 of ATT 6] and Figure 31 [Exhibit 31 of ATT 6]). This is an outcome of the different assumptions made with respect to regulatory requirements for the SacWAM Baseline and VA Alternative. These simulated increases in Delta exports are not part of the VA Alternative but offset a portion of the water	The commenter seems to confuse the reference condition for the VA which is an intermediate SacWAM scenario used to calculate the VA scenario with the project baseline. There is only one project baseline, which is described in Staff Report Sections 6.2.1, Baseline Assumptions, and 13.4.2.2, Baseline Condition, and is further discussed in Common Response 6.2, Baseline and No Project Alternative. The analysis in the draft Staff Report compares the 35-75 flow scenarios and the VA scenario to the same project baseline. For a discussion on the differences between the VA modeling in SacWAM for the draft Staff Report and DWR's modeling of the VA in CalSim 3 please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding SacWAM VA scenario assumptions. Please see Common Response 6.1, regarding carryover storage targets and SacWAM reservoir buffer pools.

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		supply impacts expected under the VA Alternative and result in the 22 TAF increase in wet year water supplies shown in Figure 12. As described in the following section that provides results of CalSim 3.0 modeling of the VA Alternative, the VA Alternative includes reductions in CVP and SWP Delta export water supply (see Figure 30 [Exhibit 30 of ATT 6] and Figure 32 [Exhibit 32 of ATT 6]). This means the surface water supply impacts for the VA Alternative are underestimated in the DSR. The surface water supply impacts for the 55% UIF scenario are also underestimated in the DSR. Results reported in the DSR are developed from monthly model results of simulated water diversions in SacWAM. The SacWAM model calculates a monthly diversion requirement as the water necessary to meet crop evapotranspiration and maintain adequate soil moisture. If the simulated diversion is less than the diversion requirement, the SacWAM model simulated a soil moisture deficit that must be made up in future months if higher diversions are possible. The result is diversions that can exceed the baseline diversions in some months when prior month diversions were less than the simulated diversion requirement. Figure 13 [Exhibit 13 of ATT 6] illustrates this issue using monthly SacWAM diversions by all SRSC for the baseline and 55% UIF scenario.	
260	141	[Exhibit 13 of ATT 6: Graph titled Figure 13. Example SacWAM Monthly Diversions by SRSC for Baseline and 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	142	[ATT 6] Figure 13 [Exhibit 13 of ATT 6] shows reductions in the monthly SacWAM diversions by SRSC in the 55% UIF scenario as compared to the SacWAM Baseline in June, July, and August. The maximum percent reduction is 32% in August. The SacWAM diversions for September are 40% higher in the 55% UIF scenario than the baseline due to the soil moisture deficit from prior months. When aggregated for the purpose of summary tables in the DSR, the increased September diversions offset a portion of the decreased diversions in the prior three months. This results in an underestimate of the surface water supply impacts reported in the DSR because additional deliveries, above the baseline deliveries, in months that follow reductions, provide minimal benefit for agricultural water users following three	Figure 13 from the commenter's letter does not accurately represent SacWAM results. It is unclear which year or average of years within the 94-year simulation period are presented, and the data appears to be shifted by one month. The commenter's assertion that SacWAM delivers more water in the 55 scenario than baseline to make up for a soil moisture deficit carried over from previous months of shortage does infrequently occur. However, this should be considered a modeling artifact that occurs rarely in the SacWAM modeling and would not be expected to occur in reality. In reality, Reclamation would be expected to deliver the annual volume of water at a monthly pattern that is most beneficial to farmers, which would

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		months of 20-30% reductions. The 55% UIF scenario would result in a loss of approximately the same percentage of the planted crops as the maximum monthly percent reduction in the water supply, 32% in August.	result in water supply impacts that are best estimated by the modeled change in annual deliveries as presented in the Staff Report. Overall, the environmental impacts from changes in water supply are appropriately evaluated and disclosed in the Staff Report. SacWAM is the is the best available, peer reviewed, water balance model to evaluate changes in water supply under different flow scenarios. Please see Chapter 6, Changes in Hydrology and Water Supply, and Appendix A1, Sacramento Water Allocation Model Methods and Results, for a detailed description of SacWAM and the model results for the flow scenarios. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for further discussion on SacWAM scope, scale, and application, including additional information on the SacWAM monthly timestep.
260	143	[ATT 6] Benefits and Adverse Impacts Comparison Summary Analysis contained in the DSR demonstrates that the VA Alternative provides more benefits with less adverse impacts than the Proposed Plan Amendments. Table 1 provides a summary of benefits and adverse impacts of the VA Alternative compared to the 55% UIF scenario for the resource metrics described in the previous sections.	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.
260	144	[Exhibit 14 of ATT 6: Table titled Table 1. Summary of Benefits and Impacts of VA Alternative versus 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	145	[ATT 6] III. Separate Analysis of VA Alternative Shows Additional Delta Outflow Separate modeling of the VA Alternative, performed by DWR, wherein the regulatory requirements remain consistent with those in the DWR baseline, show significantly more Delta outflow with the VA Alternative as compared to results set forth in the DSR. Analysis of the VA Alternative benefits that are based on Delta outflow are underestimated in the DSR. Our review of the CalSim 3.0 modeling does not indicate there would be any	The frequency of additional flow provided by American River VA parties is unclear in the MOU. SacWAM representation of the American River VA has been updated in the 2025 recirculated draft Staff Report to include VA flows being provided in more years based on comments by American River VA parties. Please see Chapter 13, Revised Proposed Plan Amendments, for updated VA model results and analysis and Appendix H1a, Sacramento Water Allocation Model Methods, for a description of model updates.

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		new, or more severe, environmental impacts of the VA Alternative. This section provides a comparative analysis of VA Alternative modeling conducted by SWRCB Staff using SacWAM with the modeling conducted by DWR using CalSim 3.0. The VA Alternative flow asset assumptions for SacWAM and CalSim 3.0 are from the 2022 Memorandum of Understanding (MOU), Appendix 1, Table 1a and 1b. The flow assets explicitly simulated in each model are similar with differences in the frequency of implementation of the American River VA flow assets; simulation of the Friant VA flow assets in CalSim 3.0 but not SacWAM; and Sacramento VA flow assets in critical years in CalSim 3.0 but not SacWAM. Differences in flow assets simulated in each model are relatively small and not the primary cause for the differences in results.	While the Friant VA is not explicitly modeled in SacWAM, the Friant VA is included in the analysis. Friant VA flows are included as the time series of forgone exports previously modeled by CalSim 3 and added to Delta outflow in post processing. The critical year assets are not attributable to any MOU signatory on the Sacramento, therefore the 2 TAF were removed from the analysis in critical and dry water year types.
260	146	[ATT 6] Comparison of SacWAM and CalSim 3.0 Results SacWAM modeling of the VA Alternative includes an assumption about changes in the regulatory requirements on Delta exports that is different from the assumption about such requirements contained in the SacWAM Baseline. This section presents effects of the VA Alternative by comparing the changes in flows simulated by SacWAM and CalSim 3.0 models. Change in flows between the two models, calculated as the VA Alternative minus the respective baseline, are presented at key locations in the Sacramento Valley and Delta. Table 2 [Exhibit 15 of ATT 6] is a summary of average annual changes in flow and Delta exports under the VA Alternative as simulated in CalSim 3.0 and SacWAM. The SacWAM model outputs presented in this section correspond to the results reported in Appendix G3a of the DSR. Among the results summarized in Table 2, differences in Delta exports and Delta outflows between the two models are the most significant. CalSim 3.0 model results show an increase of 264 TAF per year of Delta outflow under the VA Alternative, while SacWAM model results show a reduction in Delta outflow of 4 TAF per year under the VA Alternative. These differences exist	State Water Board staff modeled the VA assets according to current environmental conditions and regulatory requirements. The analyses in the Staff Report compare all alternatives to the same project baseline. Please see Section 6.2.1, Baseline Assumptions, of the Staff Report for a description of the baseline assumptions. Please refer to Chapter 9, Proposed Voluntary Agreements Section 9.3.6, Points of Comparison for VA Flow Assets, for additional information about the regulatory assumptions included in the modeling of the VA proposal. For additional information, please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for a discussion of SacWAM modeling assumptions. Additionally, please see Common Response 6.2, Baseline and No Project Alternative, for information regarding the baseline used in the draft Staff Report.

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		because of differences in assumptions about regulatory requirements contained in each model. SacWAM modeling of the VA Alternative includes an assumed change in the regulatory requirements for Delta exports from the regulatory requirements assumed in the SacWAM Baseline. This is a key difference and undermines the ability to understand the effects of the VA Alternative. The Agreements to Support Healthy Rivers and Landscapes do not include a change in regulatory requirements for Delta exports. Such regulatory requirements will be determined through other processes including the U.S. Bureau of Reclamation's (Reclamation) ongoing re-consultation regarding the long-term operations of the CVP and SWP. The Agreements to Support Healthy Rivers and Landscapes will provide additional Delta outflow on top of the Delta outflow that occurs as a result of all other applicable regulatory requirements. Comparisons of the VA Alternative to a baseline with different underlying regulatory requirements is inappropriate and is contrary to standard industry practice in the engineering profession. In the engineering profession it is standard practice when performing technical analyses of an alternative to include only the components of that alternative in the analysis while keeping all other assumptions consistent with the baseline. Performing the analysis in this way ensures that the results of the analysis reflect only the changes attributable to the alternative. The addition of other changes to the model assumptions introduces confounding effects.	
260	147	[Exhibit 15 of ATT 6: Table titled Table 2. Average Annual Flow Changes in TAF with CalSim 3.0 and SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	148	[ATT 6] As described in DSR Appendix A1 describing the SacWAM modeling, the SacWAM results are intended to be used in a comparative analysis to understand the incremental effects between two scenarios (DSR Appendix A1, A1-3). Comparative analyses are the standard practice in the engineering profession for evaluating model results such as those presented in the DSR. However, it is critical to ensure that these comparisons, such as the change between an alternative and the baseline, represents	The Staff Report indicates the baseline assumptions and the assumptions in the unimpaired flow and VA scenarios. Please refer to Chapter 6, Changes in Hydrology and Water Supply, and Chapter 9, Proposed Voluntary Agreements, to review baseline assumptions and the assumptions of the alternatives analyzed.

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		only the changes associated with the alternative. All other assumptions and inputs not specifically part of the alternative should remain consistent with the baseline.	
260	149	[ATT 6] Unlike SacWAM, the CalSim 3.0 modeling performed by DWR adheres to standard industry practice in that the analysis reflects only the changes attributable to the VA Alternative. Under the VA Alternative scenario in the CalSim 3.0 modeling performed by DWR, the underlying regulatory requirements are the same as in the CalSim 3.0 baseline. In order to understand the impact of the change in regulatory requirements in the VA Alternative scenario as modeled in SacWAM, it is helpful to compare the SacWAM modeling results for the VA Alternative with the CalSim 3.0 modeling results for the VA Alternative. Because of the change to regulatory requirements in the VA Alternative in SacWAM, the CalSim 3.0 modeling of the VA Alternative is a more useful comparative tool for analysis of Delta outflow. Analysis of the VA Alternative benefits that are based on Delta outflow and represented as a change from the baseline are underestimated in the DSR. The underestimation of benefits does not affect the VA Alternative impact analysis. Our review of the CalSim 3.0 modeling did not identify any potential for new or more severe significant impacts of the VAs as modeled under CalSim 3.0, compared to the SacWAM modeling.	Please see Common Response 6.2, Baseline and No Project Alternative, for responses to comments and questions regarding the baseline used in the Staff Report. Also please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, for a discussion on SacWAM VA scenario assumptions.
260	150	[Exhibit 16 of ATT 6: Average Monthly Changes in Sacramento River Flow below Keswick with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	151	[Exhibit 17 of ATT 6: Graph titled Figure 15. Average Monthly Changes in Sacramento River Flow below Keswick with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	152	[ATT 6] Figure 14 [Exhibit 16 of ATT 6] and Figure 15 [Exhibit 17 of ATT 6] compare changes in flows at Keswick with the VA Alternative from SacWAM and CalSim 3.0. The SacWAM model shows higher flows at Keswick in April and May under the VA Alternative as compared to CalSim 3.0. The large magnitude difference in SacWAM is because the SacWAM VA Alternative excludes the San Joaquin River inflow-to-export ration (SJR I/E)	As stated in Chapters 6, Changes in Hydrology and Water Supply, and 9, Proposed Voluntary Agreements, of the draft Staff Report, the 2019 Biological Opinions resulted in the removal of the I:E limits that had been included in the 2009 NMFS Biological Opinions limiting exports by the CVFP and SWP as a function of San Joaquin River Flows. The VA benefits are assessed relative to the USFWS 2008/ NMFS 2009 Biological Opinions condition, which is the point of reference used for both the 2017 Scientific

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		export restrictions in these months allowing greater release from Shasta for exports in April and May.	Basis Report and the 2023 Final Draft Scientific Basis Report Supplement. Please see the response to comment 260-146.
260	153	[Exhibit 18 of ATT 6: Graph titled Figure 16. Average Monthly Changes in Sacramento River Flow near Wilkins Slough with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	154	[Exhibit 19 of ATT 6: Graph titled Figure 17. Average Monthly Changes in Sacramento River Flow near Wilkins Slough with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	155	[ATT 6] Figure 16 [Exhibit 18 of ATT 6] and Figure 17 [Exhibit 19 of ATT 6] depict the changes in flows at Wilkins Slough with the VA Alternative between SacWAM and CalSim 3.0. As observed at Keswick, the SacWAM model indicates larger magnitude flow changes in April and May under the VA Alternative due to increased releases from Shasta for CVP exports. The reductions in flow simulated in both models for the months of December through March are a result of the Tisdale Weir notch project under the VA Alternative.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.
260	156	[Exhibit 20 of ATT 6: Graph titled Figure 18. Average Monthly Changes in Yuba River Flow near Marysville with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	157	[Exhibit 21 of ATT 6: Graph titled Figure 19. Average Monthly Changes in Yuba River Flow near Marysville with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	158	[ATT 6] Figure 18 [Exhibit 20 of ATT 6] and Figure 19 [Exhibit 21 of ATT 6] illustrate the changes in Yuba River inflows into the Feather River. In CalSim 3.0, Yuba VA flow assets are released in April, May, and June during above normal, below normal, and dry years. Conversely, in SacWAM, these flows are predominantly observed in April and May. Notably, SacWAM exhibits a decrease in Yuba River inflows between November and February.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.

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260	159	[Exhibit 22 of ATT 6: Graph titled Figure 20. Average Monthly Changes in Feather River Flow at the Sacramento River Confluence with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	160	[Exhibit 23 of ATT 6: Graph titled Figure 21. Average Monthly Changes in Feather River Flow at the Sacramento River Confluence with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	161	[ATT 6] Figure 20 [Exhibit 22 of ATT 6] and Figure 21 [Exhibit 23 of ATT 6] show changes in Feather River flows at the confluence with the Sacramento River with the VA Alternative. Average annual flows in the Feather River are greater in CalSim 3.0 by 56 TAF as compared to SacWAM due to differences in Oroville releases to the river and the Yuba River contribution. Changes in April and May flows in the three years with VA flow assets are typically higher in SacWAM, but reductions in other months exceed those in CalSim 3.0.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.
260	162	[Exhibit 24 of ATT 6: Graph titled Figure 22. Average Monthly Changes in American River Flow at Natomas with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	163	[Exhibit 25 of ATT 6: Graph titled Figure 23. Average Monthly Changes in American River Flow at Natomas with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	164	[ATT 6] Figure 22 [Exhibit 24 of ATT 6] and Figure 23 [Exhibit 25 of ATT 6] shows changes in American River flows at Natomas between the two models with the VA Alternative. The magnitude of monthly flow changes under the VA Alternative in the CalSim 3.0 model are smaller than those simulated in SacWAM.	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.
260	165	[Exhibit 26 of ATT 6: Graph titled Figure 24. Average Monthly Changes in Sacramento River Flow at Hood with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	166	[Exhibit 27 of ATT 6: Graph titled Figure 25. Average Monthly Changes in Sacramento River Flow at Hood with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.

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260	167	[ATT 6] Figure 24 [Exhibit 26 of ATT 6] and Figure 25 [Exhibit 27 of ATT 6] compare changes in Sacramento River inflow to the Delta with the VA Alternative from SacWAM and CalSim 3.0. The SacWAM model shows higher flows in April and May under the VA Alternative as compared to the CalSim 3.0 model for the reasons stated above relating to flows at Keswick and the Feather River. The CalSim 3.0 model shows increased flows in most months while the SacWAM model shows a mix of increased and decreased flows. On an average annual basis, CalSim 3.0 shows an approximately 35 TAF larger increase in the volume of Sacramento River inflow to the Delta in comparison to SacWAM.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.
260	168	[Exhibit 28 of ATT 6: Graph titled Figure 26. Average Monthly Changes in Yolo Bypass Flow with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	169	[Exhibit 29 of ATT 6: Graph titled Figure 27. Average Monthly Changes in Yolo Bypass Flow with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	170	[ATT 6] Figure 26 [Exhibit 28 of ATT 6] and Figure 27 [Exhibit 29 of ATT 6] show changes in Yolo Bypass inflows into the Delta. Both models predict an average annual reduction in Yolo Bypass inflows under the VA Alternative, but the CalSim 3.0 modeling shows less of a reduction to such inflows than the SacWAM modeling.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.
260	171	[Exhibit 30 of ATT 6: Graph titled Figure 28. Average Monthly Changes in CVP Exports at Jones Pumping Plant with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	172	[Exhibit 31 of ATT 6: Graph titled Figure 29. Average Monthly Changes in CVP Exports at Jones Pumping Plant with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	173	[ATT 6] Figure 28 [Exhibit 30 of ATT 6] shows a reduction in CVP exports under the VA Alternative as shown by the CalSim 3.0 modeling. Conversely, the SacWAM modeling shows an increase in CVP exports under the VA Alternative during April and May due to the assumed removal of SJR I/E restrictions as shown in Figure 29 [Exhibit 31 of ATT 6]. The increased exports in April	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.

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		and May of most water year types under the VA Alternative, as modeled in SacWAM, is a result of an assumed change in regulatory restrictions on Delta exports contained in the SacWAM VA Alternative as compared to the SacWAM Baseline. Under the CalSim 3.0 modeling, average annual CVP exports are reduced by 57 TAF under the VA Alternative while CVP exports increase 58 TAF under the SacWAM modeling for the VA Alternative.	
260	174	[Exhibit 32 of ATT 6: Graph titled Figure 30. Average Monthly Changes in Exports at Banks Pumping Plant with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	175	[Exhibit 33 of ATT 6: Graph titled Figure 31. Average Monthly Changes in Exports at Banks Pumping Plant with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	176	[ATT 6] Figure 30 [Exhibit 32 of ATT 6] and Figure 31 [Exhibit 33 of ATT 6] show similar changes in Banks exports as shown above for CVP exports. The increased exports in April and May of most water year types under the VA Alternative in SacWAM is a result of the change in assumed regulatory restrictions on Delta exports in the SacWAM VA Alternative compared to the SacWAM Baseline. Average annual Banks exports in the CalSim 3.0 model are reduced 54 TAF under the VA Alternative while Banks exports increase 28 TAF in the SacWAM modeling.	Please see Common Response 1.1, General Comments, for responses to comments that make general comments, do not raise significant environmental impacts of the project, or do not raise specific economic effects of the project.
260	177	[Exhibit 34 of ATT 6: Graph titled Figure 32. Average Monthly Changes in Delta Outflow with VA Alternative in CalSim 3.0]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	178	[Exhibit 35 of ATT 6: Graph titled Figure 33. Average Monthly Changes in Delta Outflow with VA Alternative in SacWAM]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	179	[ATT 6] Figure 32 [Exhibit 34 of ATT 6] and Figure 33 [Exhibit 35 of ATT 6] illustrate the changes in Delta outflow under the VA Alternative for the two models. CalSim 3.0 modeling shows an average annual increase in Delta outflow under the VA Alternative of 264 TAF, with approximately 154 TAF more inflow from the Sacramento Valley and 110 TAF less Delta exports.	Please see the response to comment 260-146.

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		Conversely, SacWAM modeling shows an average annual decrease in Delta outflow under the VA Alternative of 4 TAF, with approximately 119 TAF more inflow from the Sacramento River offset by reductions in Yolo Bypass inflows and an 86 TAF increase in Delta exports due to the difference in assumed regulatory restrictions on Delta exports between the VA Alternative and the baseline in SacWAM, as discussed above. Comparison of the VA Alternative to a baseline with different underlying regulatory requirements as occurred in the SacWAM modeling is inappropriate and confounds the understanding of the expected changes attributable to the VA Alternative, in this case underestimating the increases in Delta outflow attributable to that Alternative.	
260	180	[ATT 6] IV. Unavoidable Impacts of Unimpaired Flow Requirements Current Conditions There are significant, real-world adverse impacts that would result from implementation of an unimpaired flow requirement of 45 to 65%. California water infrastructure, including the CVP, SWP, and local projects, were developed to address the state's seasonal contrast of wet winters and dry summers, lower winter demands and higher summer demand, and variable interannual precipitation. Figure 34 [Exhibit 36 of ATT 6] illustrates how storage facilities contribute to balancing water supply and demand. Runoff from late fall through early spring exceeds demand and allows a portion of the runoff to be diverted to storage in the state's existing reservoirs and aquifers. As runoff declines each spring and water demand increases, reservoirs transition from storing water to releasing water to meet the higher demand. This stored water meets a substantial portion of demand from late spring through early fall in most years, resulting in reduced water shortages. Currently, runoff peaks in early spring, just a few months before demand reaches its peak in early summer. The unimpaired flow concept limits functionality of reservoirs 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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		fulfill their intended purpose of shifting the availability of water in time and contradicts the fundamental principles of water supply management in California. UIF requirements at the levels of the PPA cannot be implemented in California without significant adverse impacts. Unimpaired flow requirements in the PPA will require higher flows during periods when demands are typically low, meaning the requirements can only be met by reducing diversions to storage in reservoirs. The impacts to reservoirs are shown in the SacWAM modeling results in Figure 10 [Exhibit 10 of ATT 6], most notably for Oroville and Folsom.	
260	181	[Exhibit 36 of ATT 6: Graph titled Figure 34. Current Conditions of California Water Supply, Demands, and the Role of Storage]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	182	[ATT 6] Figure 35 [Exhibit 37 of ATT 6] is an example to illustrate the relationship between unimpaired flow requirements, existing flows, and demands for water on the American River. Figure 35 shows average monthly information from the SacWAM model for unimpaired flow requirements covering the range of the PPA for the Lower American River, average monthly and average critical year monthly Lower American River flows from the SacWAM baseline, and average monthly modeled total American River diversions. Average UIF requirements of 55% are higher than existing flows during April and May by approximately 50 TAF per month. The total American River demands, primarily for M&I beneficial uses, during these same months are approximately 25 TAF. There is not enough American River demand to meet these flow requirements by reductions in deliveries; therefore, the only option is to reduce diversions to storage in Folsom. Although average existing flows are greater than unimpaired flow requirements from November through February and in June, there are many periods when diversions to storage must be reduced to meet unimpaired flow requirements.	Requiring more water for the reasonable protection of aquatic beneficial uses will reduce the availability of water for other uses and storage in some cases, as presented in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis, of the draft Staff Report. In addition to the proposed Plan amendments, which remain part of the project as the regulatory pathway, the project has also been revised in response to comments received expressing concerns over potential water supply and carryover storage impacts. As described in Common Response 1.3, Revised Proposed Plan Amendments, 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.
260	183	[Exhibit 37 of ATT 6: Graph titled Figure 35. Average Monthly Lower American River Flow, Percent of Unimpaired Flow, and Baseline American River Diversions]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.

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260	184	[ATT 6] Figure 36 [Exhibit 38 of ATT 6] shows the additional Folsom releases to the Lower American River flow that would be necessary to meet UIF requirements. These increases were calculated by the difference in American River flow for periods when releases were made specifically to meet the UIF requirements. These increased flows must be satisfied by bypassing water that would otherwise be diverted to storage in Folsom. The resulting average drawdown is shown in Figure 36. The reduction in Folsom storage to meet unimpaired flow is generally greater than the total annual American River diversions. This demonstrates that it is not possible to meet the UIF requirements solely through a reduction in diversions, and the UIF requirements will adversely impact reservoir storage. In general, reduction in reservoir storage to meet UIF requirements will deplete cold water held in reservoirs, limit the ability to meet temperature objectives in the Lower American River, and reduce summertime hydropower generation. Similar impacts will occur at most reservoirs in the Sacramento River watershed.	Please see Common Response 7.6.2, Aquatic Biological Resources and Cold Water Habitat, for a discussion on modeling and full implementation of the cold water habitat objective and impacts with implementation of the cold water habitat objective. Discussed in Common Response 7.6.2 are water temperature effects and actions to reduce these effects, including those that could alter reservoir release temperature targets to maximize cold water use and prevent substantial reductions in hydropower generation during times of high demand. Further, see the response to comment 264-182 for a discussion of how the proposed Plan amendments have been revised to include water supply adjustments and allow reservoir owner/operators to propose carryover storage requirements as part of their long-term temperature management strategies.
260	185	[Exhibit 38 of ATT 6: Graph titled Figure 36. Additional Folsom Reservoir Release to Meet Unimpaired Flow Requirements (SacWAM Unimpaired Flow Scenarios minus SacWAM Baseline)]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	186	[ATT 6] Future Climate Change The real-world adverse impacts of an unimpaired flow requirement of 45 to 65% will exacerbate the effects of climate change and are not evaluated in the DSR. California's water supply infrastructure is designed to bridge the seasonal disparity between supply and demand. Projected climate conditions indicate a shift in the timing of runoff that will limit the ability to capture winter flows and create challenges in meeting summer demands. Findings from a 2015 [Footnote 3: California Climate Science and Data for Water Resources Management, California Department of Water Resources (DWR 2015)] DWR paper illustrate the shift in the seasonal timing of runoff that is currently underway and expected to continue with climate change. "The timing of runoff has changed in California's	Please refer to Common Response 4.2, Drought and Climate Change, for a discussion on the consideration of climate change within the impact analyses of the Staff Report. Also see Common Response 6.3, Water Supply and Other Water Management Actions, for more discussion on water supply impacts.

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		largest water-supply watershed, the Sacramento River System, shifting to earlier in the season. Snowmelt provides an annual average of 15-million acre-feet of water, slowly released by melting from about April to July each year. Much of the State's water infrastructure was designed to capture the slow spring runoff and deliver it during the drier summer and fall months." Figure 37 [Exhibit 39 of ATT 6] is another figure from the 2015 DWR report that illustrates the shift in runoff occurring with climate change and the general effects of that shift on storage, flood control releases, and water shortage. Figure 37 illustrates the hydrologic changes expected in response to a warming climate, adding extra strain to water supply systems. The effects of climate change are seen by comparing Figure 37 that illustrates future conditions with climate change and Figure 34 [Exhibit 36 of ATT 6] that represents our current conditions. As peak runoff shifts earlier in the year, more reservoir inflow occurs when reservoirs are operated for flood management and there is an increase in the releases of water for flood control. This is particularly applicable in wetter years with above average runoff. This results in lower peak reservoir storage and peak storage earlier in the year than peak demands. The result is increased shortage during the higher demand season with climate change than under current conditions and more challenges in managing water for beneficial uses. These are many of the same water management challenges that will occur with UIF requirements at the levels in the PPA; higher spring releases, lower reservoir storage, and challenges managing water for all beneficial uses during the spring, summer, and fall seasons. With the timing of runoff under current conditions, there may be enough runoff in wetter years to meet UIF requirements and fill reservoirs, though the frequency of filling reservoir will be reduced. As shown in Figure 37, climate change will make filling reservoirs challenging in these wetter years such that the combination of both climate change and UIF requirements will create shortages and water management challenges in nearly all years.	

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260	187	[Exhibit 39 of ATT 6: Graph titled Figure 37. Future Conditions of California Water Supply, Demands, and the Role of Storage]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	188	[ATT 6] The consequences of climate change in combination with UIF requirements are significant yet remain unanalyzed in the DSR. The DSR states, "There is great uncertainty of how global change may affect the local climate in the study area. Changes in sea level, wind, temperature, and precipitation all may have large effects on the hydrology and available water supply. SacWAM modeling of climate change is not included at this time because of the uncertainty and lack of detailed climate change information required to produce inputs to the model." While it is true that there is still considerable uncertainty regarding the magnitude and timing of future climate change, this is not an acceptable reason to not analyze the potential effects of such change. There are numerous technical approaches, regularly utilized by DWR, Reclamation, and others for incorporating the uncertainty of future climate change into the analysis of proposed projects. Several of these governmental bodies have developed detailed climate change information and utilized the information to produce inputs for other models such as CalSim 3.0.	Please see response to comment 260-186 regarding the modeling of climate change effects in the final Staff Report.
260	189	[ATT 6] The lack of a climate change analysis in the DSR raises fundamental questions about the adequacy of the DSR's analysis of the impacts that would result from implementation of the PPA. Climate change analysis has become an integral part of future planning in California as evidenced by Governor Newsom's Executive Order N-10-19 signed in 2019, to develop a "water resilience portfolio," described as a set of actions to build a more climate-resilient future for California. The Executive Order states: "Historical hydrological patterns can no longer serve water managers as a trustworthy guide around which to plan, so climate science and projections have become increasingly important. Future conditions will continue to change and require ongoing adjustment and adaptation by water managers. By focusing on diversifying water sources, improving storage and management, and promoting conservation, the portfolio aims to build a more climate-resilient future for California and its water	Climate change is discussed throughout the Staff Report, including but not limited to, Section 2.6, Climate Change and Drought; Chapter 4, Other Aquatic Ecosystem Stressors; Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta; Chapter 6, Changes in Hydrology and Water Supply; Section 7.10, Greenhouse Gas Emissions; and Section 9.7.10, Greenhouse Gas Emissions. Please also see Common Response 4.2, Drought and Climate Change, regarding the evaluation of climate change.

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		security." (California Water Resilience Portfolio, July 2020, DWR, page 15).	
260	190a	The lack of an implementation plan and the wide range of potential actions for the Proposed Plan Amendments make it extremely difficult to understand the impacts of the Proposed Plan Amendments on reservoir operations, river flows, water deliveries, and Delta outflow. The lack of an implementation plan is the primary deficiency in the analysis of impacts of the PPA contained in the DSR. The standard process to evaluate changes in requirements like the alternatives to update the Water Quality Control Plan is to define the project, including how it will be implemented or operated, and then perform the analysis to understand the impacts. The DSR provides a summary of potential impacts but fails to describe how the PPA will be implemented beyond stating that many aspects of the implementation plan will be left to the discretion of SWRCB staff (DSR, DSR 5-16). Without a defined implementation plan it is impossible to determine the true nature and extent of impacts associated with the PPA, including whether the projected impacts are occurring within the correct geographic region or even the correct resource area. This is acknowledged in Appendix A1 which states that the distribution of water supply between CVP and SWP contractors and areas located north and south of the Delta may be different than modeled (DSR Appendix A1, A1-19). This statement is made in the context of uncertainty regarding how the CVP and SWP may respond to an UIF requirement, but the statement is broadly applicable to the results of the SacWAM modeling summarized in the DSR. In other words, without an implementation plan the nature, extent and geographic focus of impacts associated with the PPA cannot be adequately analyzed.	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report includes detailed sections on implementation that provide the information necessary for the Staff Report impact analyses. The impacts to reservoir operations, river flows, water deliveries, and Delta outflow were evaluated in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis, of the Staff Report. The section of Appendix A1, Sacramento Water Allocation Model Methods and Results, referenced by the commenter concludes that "the overall effects on water supplies would not be expected to differ substantially." Also see Common Response 7.1, General CEQA and Approach to the Analysis, for more information on the CEQA analysis.
260	190b	[ATT 6] V. Key Deficiencies of DSR Lack of Implementation Plan and Wide Range of Proposed Plan Amendments The lack of an implementation plan and the wide range of potential actions for the Proposed Plan Amendments make it extremely difficult to understand the impacts of the Proposed	Chapter 5, Proposed Changes to the Bay-Delta Plan for the Sacramento/Delta, of the 2023 draft Staff Report includes detailed sections on implementation that provide the information necessary for the impact analyses. Section 5.4.2.3, Proposed Inflow Objective, and Section 5.4.3.3, Proposed Cold Water Habitat Objective, explain that the adaptive range of inflows is designed to provide flexibility to adjust flows over time to maximize benefits for native fish and wildlife while avoiding

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		Plan Amendments on reservoir operations, river flows, water deliveries, and Delta outflow. The PPA includes a range of potential UIF requirements. The DSR contains results from analyses across an even wider range of UIF percentages. Results include changes in flow, reservoir storage, water supply, and other metrics for discrete UIF percentages, i.e. 45%, 55%, 65%. Results are presented at a relatively high-level with the main document in boxplots, exceedance curves, and annual averages by water year type, and in appendices as average monthly values by water year type and cumulative distributions of monthly flows. These results provide information regarding the effects of a single percent UIF requirement, but not the adaptive range defined as the PPA. Results show a wide range of potential outcomes within the system. For example, Figure 38 [Exhibit 40 of ATT 6] illustrates the reductions in water supply for the range of UIF scenarios included in the PPA. These same data are included in tabular form in DSR Table 6.4-2. Results in Figure 38 [Exhibit 40 of ATT 6] show the average annual water supply impact for the PPA is within a range of 871 to 2,981 TAF. Review of changes in average annual Delta outflow (DSR Appendix A1, Table A1-103) show a similar range of increased Delta outflow from 736 to 2,623 TAF.	redirected impacts on cold water habitat, and to address other management concerns on the tributaries for salmonids and other native species. The impacts on reservoir operations, river flows, water deliveries, and Delta outflow were evaluated in Chapter 6, Changes in Hydrology and Water Supply, and Chapter 7, Environmental Analysis, of the 2023 draft Staff Report. See Common Response 1.1, General Comments, for a discussion on release of the draft program of implementation after the 2023 draft Staff Report and Common Response 1.3, Revised Proposed Plan Amendments, for a discussion on the program of implementation as it relates to the revised proposed Plan amendments. Also, please see Common Response 7.1, General CEQA and Approach to the Analysis, for a discussion on the level and scope of the analysis, which describes how the 2023 draft Staff Report adequately analyzed the range of potential actions under the proposed Plan amendments.
260	191	[Exhibit 40 of ATT 6: Graph titled Figure 38. Range of Water Supply Impacts within Proposed Plan Amendment]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	192	[ATT 6] The DSR provides some guidance regarding the decision-making process for determining what percentage of unimpaired flow may be required (DSR, 5-16). A lower percentage may be acceptable with voluntary implementation plans or if the State Board determines lower flows are needed to meet the narrative objective, including for reservoir storage. These statements do not provide sufficient detail to understand how to interpret the wide range of potential results or the criteria for how SWRCB staff will make their determinations.	Please see Common Response 1.3, Revised Proposed Plan Amendments, regarding the revised proposed Plan amendments and local cooperative solutions. See also Common Response 7.1, General CEQA and Approach to the Analysis, regarding the level and scope of the analysis.
260	193	[ATT 6] Results of Drought Sequences	Please see the response to comment 260-90.

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		The DSR does not provide information on effects of UIF requirements during multi-year drought periods. The DSR provides average water supply delivery changes by water year type and average changes in storage with exceedance probability charts, but this information is not adequate for understanding effects of the UIF scenarios during multi-year drought sequences. Statistics are helpful in providing high-level summaries of effects, but a detailed review of modeling is required to understand how the UIF scenarios may affect operations.	
260	194	[ATT 6] To analyze impacts of UIF requirements in a multi-year drought period, several time-series charts were developed from SacWAM model results to demonstrate how operation of CVP and SWP reservoirs are affected by UIF requirements and cold water habitat objectives. Figure 39 [Exhibit 41 of ATT 6] contains a chart of modeled monthly Shasta Lake storage for the SacWAM Baseline and 55% UIF scenario and a chart of annual changes in CVP North and South of Delta delivery for water year 1922 through 1939. The red line in the storage plot represents Shasta Lake storage in the 55% UIF scenario and the blue line represents Shasta Lake storage in the SacWAM Baseline. The red bar in Figure 39 [Figure 39; Exhibit 41 of ATT 6] represents changes in South of Delta (SOD) CVP delivery and the orange bar represents changes in North of Delta (NOD) CVP delivery. During the second year of the simulation, water year 1923, Shasta Lake storage is reduced more than 800 TAF to satisfy 55% UIF requirements while there are no reductions in water supply. The drawdown of Shasta Lake in 1923 results in water supply impacts to both NOD and SOD CVP deliveries in 1924. During water years 1931 to 1935, Shasta Lake storage in the 55% UIF scenario is held higher than baseline, but large water delivery reductions are made to increase storage for the cold water habitat objective. These differences in modeled operations for multi-year droughts are not identified in the DSR.	Multi-year droughts are included in the SacWAM period of simulation and therefore are included in the analyses presented in the draft Staff Report. The modeling results are not intended to represent detailed, year-specific operational outcomes, such as the exact manner in which a reservoir would be managed during a particular year or a particular drought sequence. This reflects the nature of the proposed Plan amendments, which do not prescribe specific operations or dictate management of individual reservoirs. Instead, the model uses generalized operational rules designed to respond to hydrologic variability. Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding SacWAM's scope, scale and application for a response to comments about the modeled operations of a reservoir for a single year of simulation. Additionally, please see Common Response 4.2 Drought and Climate Change, for responses to comments that raise issues with the analysis of multi-year droughts in the Staff Report.
260	195	[Exhibit 41 of ATT 6: Two graphs titled Figure 39. Shasta Lake Storage for SacWAM Baseline and 55% UIF and Annual CVP North and South of Delta Delivery Changes for SacWAM 1922-1938 Simulation Period]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.

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260	196	[ATT 6] Figure 40 [Exhibit 42 of ATT 6] contains a chart of modeled monthly Oroville Reservoir storage for the SacWAM Baseline and 55% UIF scenario and a chart of annual changes in SWP NOD and SOD delivery for water year 1922 through 1939. The red line in the storage plot represents Oroville Reservoir storage in the 55% UIF scenario and the blue line represents Oroville Reservoir storage in the SacWAM Baseline. The red bar in the delivery chart represents changes in SOD SWP delivery and the orange bar represents changes in NOD SWP delivery. Oroville Reservoir storage in the 55% UIF scenario is almost always lower than the SacWAM Baseline. The average (1922-1938) monthly reduction in Oroville Reservoir is approximately 500 TAF and can be as large as 1.7 million acre-feet. The SacWAM operating criteria for Oroville Reservoir and the Feather River place higher priority on NOD SWP delivery than on storage, this results in prolonged periods of low storage in Oroville and annual reductions in SOD SWP deliveries of more than a million acre-feet. The DSR fails to identify or analyze these results in a multi-year drought.	Please see Common Response 4.2, Drought and Climate Change, for responses to comments that raise issues with the analysis of multi-year droughts in the Staff Report. Additionally, please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding carryover storage targets and SacWAM's reservoir buffer pools for a response to comments that raise issues with reservoir storage priority and carryover levels.
260	197	[Exhibit 42 of ATT 6: Two graphs titled Figure 40. Oroville Lake Storage for SacWAM Baseline and 55% UIF and Annual SWP North and South of Delta Delivery Changes for SacWAM 1922-1938 Simulation Period]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	198	[ATT 6] Figure 41 [Exhibit 43 of ATT 6] contains a chart of modeled monthly Folsom Lake storage for the SacWAM Baseline and 55% UIF scenario and a chart of annual changes in CVP NOD and SOD delivery for water year 1922 through 1939. The red line in the storage plot represents Folsom Lake storage in the 55% UIF scenario and the blue line represents Folsom Lake storage in the SacWAM Baseline. The red bar in the delivery chart represents changes in SOD CVP delivery and the orange bar represents changes in NOD CVP delivery, the CVP deliveries are the same as those in Figure 39 [Exhibit 41 of ATT 6]. Folsom Lake storage is lower in the 55% UIF scenario than the baseline is almost all winter and spring periods during this multi-year drought period. The DSR fails to identify or analyze these results.	Please see Common Response 4.2, Drought and Climate Change, for responses to comments that raise issues with the analysis of multi-year droughts in the Staff Report. Additionally, please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding carryover storage targets and SacWAM's reservoir buffer pools for a response to comments that raise issues with reservoir storage priority and carryover levels.
260	199	[Exhibit 43 of ATT 6: Two graphs titled Figure 41. Folsom Lake Storage for SacWAM Baseline and 55% UIF and Annual CVP North and South of Delta Delivery Changes for SacWAM 1922-1938 Simulation Period]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.

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260	200	[ATT 6] Figure 42 [Exhibit 44 of ATT 6] and Figure 43 [Exhibit 45 of ATT 6] contain changes in total annual CVP and SWP delivery in the 55% UIF scenario relative the SacWAM Baseline. Data in these figures are consistent with DSR Table A1-496 and Table A1-520. There are sequences of years with reductions in water deliveries that exceed a million acre-feet for each project and individual years when reductions exceed 1.5 million acre-feet. The DSR does not address the effects of these prolonged delivery reductions.	The impacts of each flow alternative are presented in Chapter 7, Environmental Analysis, of the Staff Report. Water supply is evaluated extensively throughout the Staff Report, utilizing data from SacWAM runs and additional post-processing. The results presented in the commenter's figure are consistent with data presented in the Staff Report and this comment does not specify any deficiency in the analysis.
260	201	[Exhibit 44 of ATT 6: Graph titled Figure 42. Change in Annual Total CVP Delivery under 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	202	[Exhibit 45 of ATT 6: Graph titled Figure 43. Change in Annual Total SWP Delivery under 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	203	[ATT 6] Analysis for Modular Alternatives The DSR describes several modular alternatives but provides limited model results for only one modular alternative and relies on qualitative descriptions of effects for the other modular alternatives. The DSR includes descriptions of several modular alternatives in Chapter 7. Modular alternatives 4a, 4b, and 4c for interior flows/fall Delta outflow may be used in combination with the PPA or other flow alternatives (DSR, 7.24-34}. Modular drought alternatives 5a and 5b could be adopted in combination with PPA, other flow alternatives, or the VA Alternative (DSR, 7.24-47). Modular alternative 6a is for the protection of VA flows and could be adopted with the VA Alternative (DSR, 9-199).	The 2023 draft Staff Report described the modular alternatives in Section 7.2, Description of Alternatives, with sufficient detail for the purposes of the analysis. These alternatives were adequately analyzed in Section 7.24.5, Modular Alternatives for Interior Flows/Fall Delta Outflow (Alternatives 4a, 4b, and 4c), and Section 7.24.6, Modular Drought Alternatives (Alternative 5a and 5b), of the 2023 draft Staff Report. Please see Common Response 7.24, Alternatives Analysis, for more information on the description and analysis of the alternatives.
260	204	[ATT 6] DSR sections 7.24 and 9.9 contain qualitative descriptions of the effects on flows, reservoir levels, water supply, and economics for the modular alternatives. Based on results presented in Tables 7.24-2 through 7.24-5, it appears modular alternative 4a was modeled in SacWAM to simulate the effects of removing the SJR I/E restriction on Delta exports. There are no other model results presented for any of the other	Please see Common Response 7.24, Alternatives Analysis, for more information on the analysis of alternatives.

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		modular alternatives and no explanation for why modular alternative 4a was modeled, but other modular alternatives were not modeled.	
260	205	[ATT 6] Modular alternative 4c, that would extend the SJR I/E restrictions on Delta exports from February through June, and the modular drought alternatives have significant implications to flow, reservoir levels, and water supply. For example, the limited model results for modular alternative 4a contained in Table 7.24-2 show the removal of the SJR I/E ratio in April and May would decrease average annual Delta outflow by 218 TAF from the SacWAM Baseline and increase Delta exports by 237 TAF (Table 7.24-4). Modular alternative 4c would extend the SJR I/E ratio to the months of February, March, and June but no model results are presented in the DSR for this modular alternative. Effects to water supply for modular alternative 4c are described as "potentially significant impacts" (DSR, 7.24-45). Modeling should be performed for this modular alternative to understand the impacts in combination with the alternatives that may include it.	Modular Alternative 4c was adequately analyzed in Section 7.24.5, Modular Alternatives for Interior Flows/Fall Delta Outflow (Alternatives 4a, 4b, and 4c), of the 2023 draft Staff Report. Please see Common Response 7.24, Alternatives Analysis, for more information on the analysis of alternatives and the response to comment 260-71.
260	206	[ATT 6] There are no model results presented for the two modular drought alternatives, but the effects on water supply are described as "potentially significant impacts" (DSR, 7.24-49 and 7.24-51). Modeling and analysis are needed to understand the magnitude and location of these potential impacts because these modular alternatives are focused on actions during droughts periods of limited supply and may be adopted in combination with any of the alternatives in the DSR.	The modular drought alternatives were adequately analyzed in Staff Report Section 7.24, Alternatives Analysis. As explained in the analysis, the Instream Flow Protection Provision could reduce to some degree the water supply impacts to the Projects and their contractors and to carryover storage in Project reservoirs which may redistribute water supply impacts to some degree for other individual diverters during drought conditions. This could result in potentially significant impacts on certain water users, including more junior water diverters that do not currently have Term 91 in their water rights. If implemented in combination with the proposed Plan amendments or other flow alternatives, or proposed VAs, the Instream Flow Protection Provision Alternative could result in reduced water supplies for individual water users at times during drought conditions, but the types of impacts and significance determinations would remain similar to those made without the Instream Flow Protection Provision Alternative. The Shared Water Shortage Provision Alternative would require all water right holders and claimants in the Sacramento/Delta watershed to conserve water in order to contribute toward meeting the Bay-Delta Plan objectives. This provision would distribute the effects of Sacramento/Delta surface water supply shortages among a

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			larger group of surface water diverters when this provision is in effect under drought conditions (including during declared drought emergencies). This would help to reduce concentrated water supply shortage effects on specific surface water diverters who would have been fully curtailed in the absence of this provision. However, the Shared Water Shortage Provision Alternative could result in water supply impacts on certain surface water diverters who would otherwise not be required to conserve water in order to contribute toward meeting the Bay-Delta Plan objectives in the absence of this provision. See Common Response 7.24, Alternatives Analysis, for more information on the analysis of alternatives.
260	207	[ATT 6] VI. Review of SacWAM Modeling of UIF Requirements SacWAM model scenarios performed by SWRCB staff encompass a range of potential instream flow changes from 35 up to 75% unimpaired flow, in increments of 10%. Potential impacts due to imposition of UIF requirements throughout the Sacramento River Basin and Delta are assessed by comparing SacWAM UIF scenarios to the SacWAM Baseline. Although the DSR presents high level summaries of the comparison of UIF scenarios, many key effects due to imposition of UIF requirements cannot be determined from a high level summary. Therefore, MBK has conducted a detailed review of SacWAM scenarios to better understand the anticipated impacts. The detailed review of SacWAM UIF scenarios included review of water operations criteria based on simulation results including changes in reservoir operations, changes in water delivery, changes in flow through the Bay-Delta watershed, and other key water operation parameters.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply regarding the scope, scale and application and regarding CVP allocations and obligations of SacWAM.
260	208	[ATT 6] Inconsistent Implementation of Proposed Plan Amendments on Different Rivers Differences in how the UIF requirements and narrative cold water habitat objective are modeled on different river systems within the Sacramento Valley result in disproportionate impacts within the Sacramento Valley, North and South of Delta, and between the CVP and SWP. There are differences in how the UIF requirements and narrative	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 and regarding CVP allocations and obligations. Please also see the response to comment 260-103.

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		cold water habitat objectives are modeled in SacWAM for the Sacramento, Feather, and American rivers. The narrative cold water habitat objective is implemented more aggressively at Shasta Lake resulting in reductions in diversions to the SRSC to maintain water in storage while meeting the UIF requirements downstream of Shasta and Keswick. The narrative cold water habitat objective is less restrictive on the Feather and American rivers resulting in lower reservoir storage but fewer diversion reductions to Feather River service area diversions. Oroville storage in the 55% UIF scenario is approximately 615 TAF lower in May than the SacWAM baseline, while Shasta storage in the 55% UIF scenario is approximately 178 TAF lower in May than the SacWAM baseline (see Figure 10 [Exhibit 10 of ATT 6]). Although temperature management is impacted in both the Sacramento and Feather rivers as shown above in Figure 5 [Exhibit 5 of ATT 6] and Figure 6 [Exhibit 6 of ATT 6], average storage reduction in Oroville storage is 437 TAF more than the reduction in Shasta storage. The lower storage in Oroville results, in part, in the reduced deliveries to SOD SWP contractors whereas most of the CVP water supply impacts are NOD. To illustrate the difference in the modeled implementation of UIF requirements and the cold water habitat objective, Table 3 [Exhibit 46 of ATT 6] is a summary of the average annual change in water deliveries to different geographic regions of the CVP and SWP for the 45, 55, and 65% UIF scenarios. Table 4 [Exhibit 47 of ATT 6] provides the percent of the total changes that occur in regions NOD and SOD for each project. For example, the annual average reduction in NOD CVP deliveries in the 55% UIF scenario compared to the SacWAM Baseline is 296 TAF and the average annual reduction in CVP total delivery is 528 TAF; therefore, 56% of CVP water supply impact is NOD. By comparison, the annual average reduction in SWP NOD deliveries in the 55% UIF scenario is 29 TAF (22 TAF reduction to SWP Feather River Service Area plus 7 TAF reduction to SWP Table A NOD) and the average annual reduction in SWP total delivery is 710 TAF; therefore, 4% of SWP water supply impact is NOD.	

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260	209	[Exhibit 46 of ATT 6: Table titled Table 3. Average Annual Change in Water Delivery under Percent UIF Requirements Compared to SacWAM Baseline in TAF]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	210	[Exhibit 47 of ATT 6: Table titled Table 4. Distribution of SacWAM Changes in CVP and SWP Water Delivery to North and South of Delta]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	211	[ATT 6] Variation in the implementation of UIF requirements and cold water habitat objectives on upstream tributaries alters the burden of meeting UIF requirements in the Delta between the CVP and SWP. Although SacWAM operates each tributary independently to meet UIF requirements on each tributary, SacWAM applies the Coordinated Operations Agreement (COA) sharing percentages to allocate responsibility for meeting UIF requirements in the Delta to the CVP and SWP. The differences on where water supply impacts occur, whether NOD or SOD for each project, affects COA and the water supply of each project.	As described in Section A1.2.2, Locations of New Instream Flow Requirements in Each Scenario, of Appendix A1, Sacramento Water Allocation Model Methods and Results, unimpaired flow requirements were added throughout the model domain not just on Project tributaries. This forces a bypass of unimpaired flow from all major tributaries and through the valley floor and Delta. As the commenter points out, SacWAM assumes that the existing Coordinated Operations Agreement allocates the responsibility for meeting gate unimpaired flow requirements in the Delta to the CVP and SWP. While this agreement between DWR and Reclamation may need to be renegotiated if faced with greater streamflow requirements, it would be speculative for the analysis contained in the State Water Board's modeling and Staff Report to assume any other sharing agreement between the two projects.
260	212	[ATT 6] SacWAM Priorities and Operations Inconsistent with Policies and Contracts SacWAM model results demonstrate that UIF scenarios include model operations that are inconsistent with U.S. Bureau of Reclamation policies and contract obligations. A failure to accurately simulate Reclamation policies and contract obligations result in modeled water supply impacts and associated reservoir operations that are inconsistent with actual system operations. Real-time operation of the California water system is affected by myriad operating criteria from SWRCB, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, Divisions of Safety of Dam, U.S. Army Corps of Engineers, Federal Energy Regulatory	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations and obligations.

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		Commission, and others. In addition to state and federal operating requirements, there are numerous contracts, policies, and agreements that govern distribution of water supply throughout the state and prioritize place of use, type of use (M&I, agriculture, hydropower, fish and wildlife, etc.), season of use, sharing of supply, responsibility for meeting requirements, and more. All these operating criteria, contracts, policies, agreements, and water distribution priorities affect operation of California's reservoirs, river flows, and water infrastructure to meet multiple beneficial uses. Models of the California water system that intend to assess effects of proposed actions must operate in a manner that adheres to operating criteria, contracts, policies, agreements, and priorities governing the system. If models abide by these operating requirements, then models may be helpful in assessing effects of proposed actions and if models do not properly follow procedures governing actual operations then model results are unreliable for assessing effects of proposed actions. Compliance with actual operating criteria when modeling proposed UIF requirements is essential to determining if model results are reliable; therefore, SacWAM model results are reviewed to assess if the model results are applicable to actual system operations. The following sub-sections provide three examples of how the SacWAM model operations are inconsistent with policies and operational criteria.	
260	213	[ATT 6] Sacramento Settlement Contract Reduced Diversions and CVP Water Service Cuts Reclamation allocates water supplies based on their "Central Valley Project Municipal and Industrial Water Shortage Policy Guidelines and Procedures" (CVP M&I WSP). For analysis to adequately assess effects of UIF requirements, modeling must follow the priorities, contracts, policies, and procedures Reclamation uses in real-time operations. If simulated implementation of UIF requirements does not follow the CVP M&I WSP then modeled water delivery impacts and associated reservoir operations will be inconsistent with actual system operations. SacWAM water allocations and deliveries to various	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations and obligations.

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		CVP water users was reviewed to assess compliance with actual operating contracts and policy. To review model compliance with current operating procedures, modeled deliveries to various CVP water users are compared in UIF scenarios.	
260	214	[ATT 6] Figure 44 [Exhibit 48 of ATT 6] contains annual CVP NOD water service contract deliveries (blue bars) and SRSC delivery changes (red bars) in the 55% UIF scenario. The 22 black arrows in Figure 44 indicate years when SRSC reductions are more than 20 TAF and water service contract deliveries exceed 40 TAF (which for purposes of this analysis represents an estimate of annual NOD public health and safety [PH&S] deliveries). In real-time operations, Reclamation operates to meet the SRSC before allocating water to CVP water service contractors, but there are years when SRSC deliveries are reduced while water service contract delivery is greater than PH&S amounts. This modeled inconsistency with actual operating criteria affects the integrated operation of the CVP and SWP and alters the location of water delivery impacts, reservoir operational changes, river flow changes, and environmental effects.	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations and obligations.
260	215	[Exhibit 48 of ATT 6: Graph titled Figure 44. SacWAM Reductions in SRSC Diversions Due to 55% UIF Requirement and CVP NOD Walter Service Contract Delivery in 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	216	[ATT 6] Sacramento Settlement Contract Reduced Diversions and Shasta Release for CVP Export As shown in Figure 44 [Exhibit 48 of ATT 6], SRSC diversions are reduced by 100 TAF or more in 38 out of 94 years simulated in SacWAM under the 55% UIF scenario, or approximately 40% of years. In years when SRSC diversions are reduced, simulated releases from Shasta to support CVP Delta exports should be limited to releases necessary to maintain minimum PH&S exports. An analysis was performed to calculate simulated Shasta releases to support CVP Delta exports by post-processing SacWAM results from the 55% UIF scenario. Figure 45 [Exhibit 49 of ATT 6] contains annual Shasta releases in excess of Sacramento River requirements that support CVP Delta export at	Please see Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, regarding CVP allocations and obligations.

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		Jones in the 55% UIF scenario (green bars), SRSC delivery reductions in the 55% UIF scenario (red bars), and the black tick marks are the difference between Shasta releases for export minus SRSC delivery reductions. Positive differences (black tick marks greater than zero) indicate that Shasta releases for export are greater than SRSC delivery reductions. In actual operations, Shasta releases for export would be reduced before reducing SRSC delivery. If differences are negative (black tick mark less than zero) then exports could be reduced by the difference between the red bar and the tick mark. These operating criteria tend to underestimate SOD CVP delivery reductions, overestimate SRSC delivery reductions, and have implications for SWP water supplies through COA.	
260	217	[Exhibit 49 of ATT 6: Graph titled Figure 45. SacWAM Results from 55% UIF Scenario for Reduced SRSC Delivery and Shasta Lake Release for CVP Export]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	218	[ATT 6] CVP South of Delta Operations and Allocations Delta export service area CVP water deliveries are also subject to the CVP M&I WSP. This policy places higher water delivery priority on PH&S, San Joaquin River Exchange Contractors (Exchange Contractors), and delivery to wildlife refuges. Figure 46 [Exhibit 50 of ATT 6] contains annual SOD CVP water service contract deliveries in the 55% UIF scenario (blue bars) and Exchange Contractors delivery reduction (red bars) in the 55% UIF scenario. Black arrows are shown in a total of 44 years and indicate when Exchange Contractor delivery reductions are more than 20 TAF and water service contractors are receiving more than 40 TAF. Exchange Contractor deliveries have a higher diversion priority than CVP water service contractors, but there are years when Exchange Contractors are reduced while water service contractor delivery is greater than assumed PH&S amounts. In these same years there are also reductions in simulated deliveries to SOD wildlife refuges while water service contractor delivery is greater than assumed PH&S amounts. This is inconsistent with actual CVP operational criteria. Inconsistency	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 and CVP allocations and obligations. As described in Common Response 6.1, a post processing step was completed to re-allocate water from CVP water service contractors to exchange and refuge contractors. The postprocessed results were used in all analyses and results throughout the 2023 draft Staff Report, including the discussion on the Friant service area in Section 7.4, Agriculture and Forest Resources, of the 2023 draft Staff Report. As discussed in Appendix H1, Sacramento Water Allocation Model Methods and Results for the Revised Proposed Plan Amendments, of the 2025 partially recirculated draft Staff Report, since the release of the 2023 draft Staff Report, SacWAM was updated such that the priorities of south of Delta CVP contractors better conform with Reclamation's historical operations and contracts, thereby making this post-processing step unnecessary.

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		with Reclamation contracts and policy results in underestimating delivery impacts to the westside of the San Joaquin Valley and urban deliveries in the Santa Clara region. Reclamation contracts for Friant Division operations require releases from Friant Dam on the San Joaquin River to meet Exchange Contractor deliveries when Exchange Contracts cannot be met from the Delta. Therefore, when modeled deliveries to the Exchange Contractors do not follow contracts and policies it is not possible to assess the potential impacts to the CVP Friant Division Contractors. This inconsistency between the model and actual operating criteria alters the location of water delivery impacts.	
260	219	[Exhibit 50 of ATT 6: Graph titled Figure 46. SacWAM Reductions in CVP Exchange Contract Diversions Due to 55% UIF Requirement and CVP SOD Walter Service Contract Delivery in 55% UIF Scenario]	This exhibit was included in the comment letter. The exhibit does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing exhibits.
260	220	[ATT 7] Dear Chair Esquivel and Board Members: The purpose of this letter is to provide comments on the State Water Resources Control Board's (State Water Board) September 2023 Draft Staff Report/Substitute Environmental Document in Support of Potential Updates To The Water Quality Control Plan For The San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan) for the Sacramento River and Its Tributaries, Delta Eastside Tributaries, and Delta (DSR), pursuant to the State Water Board's related November 14, 2023 Revised Notice of Availability and Opportunity For Public Comment, Hearing, and Staff Workshops on the Potential Sacramento/Delta Updates. We appreciate this opportunity to provide comments to the DSR. Specifically, this letter is to provide comments regarding the characterization of water transfers under the State Water Board's Proposed Plan Amendments [Footnote 1: For purposes of this letter, "Proposed Plan Amendments" (PPA) includes an inflow objective from the Sacramento River and Delta tributaries to the Delta at 55% of unimpaired flow, within an allowed adaptive range between 45 and 65% of unimpaired flow (DSR, 5-17). The PPA also includes a narrative cold-water habitat objective to ensure there are no redirected impacts on cold water habitat from the inflow and Delta outflow objectives and to address temperature	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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		management concerns on the tributaries (DSR, 5-22).] (PPA) in the DSR to address water supply shortages stemming from an unimpaired flow (UIF) requirement. In addition, this comment letter is submitted on behalf of the Northern California Water Association and its members, and the Sacramento Valley Water Users (collectively, "NCWA"), which have separately submitted a detailed comment letter to the State Water Board regarding the DSR.	
260	221	[ATT 7] Summary of Findings & Opinions Based on the information contained in this letter and the associated supporting documentation that I reviewed, including the DSR, together with my own knowledge and experience, the following are my findings and opinions: - The assumption in the DSR that water transfers would be available and utilized to mitigate for the adverse impacts of water supply reductions under the PPA is neither supported, nor realistic, nor reasonable; and is not consistent with historical water transfers based on supply and demand, considering the requirements to implement water transfers. Groundwater substitution transfer approvals will be more difficult, if not impossible to obtain, under the PPA due to the adverse impacts to groundwater conditions resulting from significant quantities of groundwater pumping to address water supply deficits and considering the relevant requirements for agencies to approve such transfers and the requirements under the Sustainable Groundwater Management Act (SGMA).	The Staff Report acknowledges that the potential changes in water supply may reduce supply availability in the water transfer market. Page 6-89 of the 2023 draft Staff Report states "...water transfers from north to south potentially would be more limited as a result of the proposed Plan amendments...". However, water transfers are an important water resource management tool in California and occur under all water supply conditions, including extremely dry years. As shown in Figure 6.6-1 of the 2023 draft Staff Report, the volume of water moved through the temporary transfers market from 2007 to 2016 varied from approximately 0.6 MAF in 2016 to more than 1.3 MAF in 2009, which was a dry year. From this historical data, it is evident that water transfers persist, and even increase during dry periods. Therefore, it is likely that water transfers will continue at some level, even with changes in water supply. In addition to the proposed Plan amendments, which remain part of the project as the regulatory pathway, the project has also been revised in response to comments received expressing concerns over potential water supply and carryover storage impacts. The inflow requirements contained in 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. The revised proposed Plan amendments also include a VA pathway for an initial eight-year term that reduces the required flow contributions for VA water rights. This would further lessen the Plan's impacts directly on water supply and on the availability of water transfers to mitigate water supply impacts. Please see Common Response 6.3, Water Supply and Other

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			Water Management Actions, for more discussion on the water supply and other water management actions and Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more discussion on groundwater impact analyses carried out as part of the Sacramento/Delta Bay-Delta Plan update and how changes in water supply may affect groundwater substitution transfers. Also see Common Response 8.1, Economic Analysis and Other Considerations, for a discussion of analysis related to pricing and viability of water transfers.
260	222	- The assumption in the DSR that water transfers would be available and utilized to mitigate for the adverse impacts of water supply reductions under the PPA is neither supported, nor realistic, nor reasonable; and is not consistent with historical water transfers based on supply and demand, considering the requirements to implement water transfers. Crop idling/shifting transfer approvals will be more difficult, if not impossible to obtain, under the PPA due to the adverse impacts to wildlife and the economy resulting from extensive land fallowing to address water supply deficits and considering the relevant requirements for agencies to approve such transfers.	As described in Chapter 2, Hydrology and Water Supply, many water users have made significant investments to diversify their water supply portfolios and the proposed Plan amendments could lead to further diversification beyond that which has occurred due to existing or potential population growth, drought, environmental needs, climate change, economic factors, and other reasons. Section 6.6, Other Water Management Actions, provides general information regarding the current and potential future use of other water management actions by water users who may experience reductions in Sacramento/Delta supplies under the proposed Plan amendments. Section 6.6.2, Regional Use of Other Water Management Actions, provides a description of other water management actions in each geographic region. The discussion is not intended to comprehensively describe every ongoing effort in every region; rather, it is intended to provide some basic general information about how different regions may respond to reduced Sacramento/Delta surface supply. Use of other water management actions in any particular geographic area depends on many factors, such as groundwater overdraft conditions, proximity to municipal recycled wastewater or desalination facilities, availability of water transfers, and other factors. As discussed in Section 6.6.1.2, Water Transfers, it is difficult to predict with certainty how reduced Sacramento/Delta surface water supplies will affect water transfers. With new instream flow and cold water habitat requirements, overall supplies of water from the Sacramento/Delta will be reduced. This may result in less water available for transfer. At the same time, it

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			could incentivize transfers as the value of transfer water increases, leading to transfers from lower value temporary crops to higher value municipal uses and permanent crops. Even if more detailed information on water transfers could be known, the additional information would not change impact conclusions. The Staff Report recognizes that the availability of replacement supplies may be limited. It is not possible to quantify exactly how the various water users that may experience reduced Sacramento/Delta supplies will manage their water supply portfolios in response to reduced supplies, and this type of quantification is beyond the scope of detail required in this planning process. In addition, the State Water Board does not have the authority to impose mitigation measures beyond its regulatory authority, and in some cases alternative water supplies may not be available. Environmental impact conclusions from reduced Sacramento/Delta supply do not rely on implementation of other water management actions even though these actions could reduce supply impacts at certain times and locations. Please see Common Response 8.1, Economic Analysis and Other Considerations, for a discussion on the feasibility of water transfers as an alternate supply source under the flow scenarios.
260	223	- The assumption in the DSR that water transfers would be available and utilized to mitigate for the adverse impacts of water supply reductions under the PPA is neither supported, nor realistic, nor reasonable; and is not consistent with historical water transfers based on supply and demand, considering the requirements to implement water transfers. Due to adverse impacts under the PPA, it is reasonable to conclude there will be entities that elect to not pursue transfers in order to assist in maintaining groundwater supplies within the basin and to support crop production that will assist to minimize adverse effects to the economy and retain market share for crops.	Please refer to the response to comment 260-222. Please also see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for more discussion on how SGMA interacts with the Sacramento/Delta Update to the Bay-Delta Plan and how changes in water supply may affect groundwater substitution transfers.

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260	224	[ATT 7] The DSR does not reasonably identify and evaluate potential transfer quantities, frequency of transfers, and associated effects. - The DSR should adequately identify and evaluate transfer quantities and frequency from key watersheds and any potential adverse impacts resulting from remaining unmet water demands under the PPA. - The DSR should include the latest, detailed information on transfers during recent drought periods (i.e., multiple, consecutive drier hydrologic conditions), as well as an evaluation of the effects of the PPA on those water transfers. The data for those transfers and associated effects should not be averaged in the DSR.	Please see the response to comment 260-13.
260	225	[ATT 7] The DSR likely underestimates the magnitude and extent of the PPA economic impacts associated with transfers. - As a result of the reduced surface water supplies and increased demand for water due to the PPA, it is reasonable to conclude that, to the extent smaller volume and lesser frequency transfers occur, the market prices for transfer water will continue its increasing trend beyond the recent historically high market prices.	Please see response to Comment 260-75 regarding the feasibility and costs of water transfers as an alternative water supply source under the flow scenarios.
260	226	[ATT 7] The purchase price for a temporary water transfer from the Sacramento Valley to entities downstream of the Bay-Delta in 2022 was \$833 per acre-foot (AF). The expense to transferees is significantly greater; at least \$1,140 per AF after subtracting conveyance and carriage losses and prior to including other expenses. The DSR should include additional supporting analysis for prices that may occur under implementation of the PPA, including the net economic impacts to transferees after considering losses and other expenses.	Please see response to Comment 260-75 regarding the feasibility and costs of water transfers as an alternative water supply source under the flow scenarios.
260	227	[ATT 7] The DSR minimizes the severity of the adverse economic impacts due to the PPA by incorrectly assuming that transfer water would be generally available, and by underestimating the likely price of transfer water, which will exacerbate those impacts to Disadvantaged Communities and Severely Disadvantaged Communities.	The Staff Report appropriately discloses the potential municipal water supply economic effects of the flow scenarios. Please see response to Comment 260-75 regarding the feasibility and costs of water transfers as an alternative water supply source under the flow scenarios.

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			Please see response to Comment 260-76 regarding municipal water supply economic effects and DACs.
260	228	[ATT 7] Relative to the information contained in the DSR that is pertinent to water transfers under the State Water Board's PPA, Section 6.6.1.2 of the DSR provides a high-level overview of water transfers. That overview includes data in Table 6.6-1, Table 6.6-2, Table 6.6-3, and Figure 6.6-1 that are primarily up to the year 2012 [Footnote 7: Figure 6.6-1 includes some limited data through 2016 for a combination of three sources: Southern California/Colorado River, Sacramento River watershed, and the San Joaquin River watershed.]. This information pre-dates the two most recent drought periods when water transfers have occurred at significant quantities, specifically transfers during 2013 through 2015, and during 2020 through 2022. In addition, those transfers cited in the DSR pre-date preparation of Groundwater Sustainability Plans to address requirements of SGMA. Those requirements have already changed the water transfer process through oversight by Groundwater Sustainability Agencies, and consideration of potential impacts to monitoring thresholds, domestic wells, groundwater dependent ecosystems, and other considerations that may result from groundwater substitution transfers. The DSR should include the latest, detailed information on transfers during those recent drought periods, as well as an accurate and complete evaluation of the effects of the PPA on those water transfers. In addition, the data summarized in Section 6.6.1.2 of the DSR is identified on an average annual basis. As indicated in this letter, water transfers from the Sacramento Valley predominantly occur in drier years; and thus, the data for those transfers should not be averaged in the DSR.	Please see the response to comment 260-13.
260	229	[ATT 7] Unimpaired Flow and Significant Adverse Impacts The following two sub-sections of this letter address potential water transfers under the State Water Board's PPA identified in the DSR, principally short-term, temporary water transfers. In general, long-term water transfers involve additional review and scrutiny as compared with temporary water transfers. The first section discusses groundwater substitution water transfers and the second section discusses crop idling/shifting water transfers, including impacts to those transfers and related factors as a	As described in Section 6.6.1.2, Water Transfers, of the 2023 draft Staff Report (p. 6-89), it is difficult to predict with certainty how reduced Sacramento/Delta surface water supplies will affect water transfers. With new instream flow and cold water habitat requirements, overall supplies of water from the Sacramento/Delta will decline. This may result in less water available for transfer. At the same time, it could incentivize transfers as the value of transfer water increases, leading to transfers from lower value temporary crops to higher value municipal uses and permanent crops.

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		result of the PPA [Footnote 8: In addition to water transfers involving groundwater substitution and crop idling/shifting, water transfers involving reservoir release, such as from South Sutter Water District (District), will be significantly limited or precluded from occurring under the PPA due to the associated water supply impacts. This is based on a review of the water supply impacts to the District as a result of the PPA.].	Additionally, please see Common Response 6.3, Water Supply and Other Water Management Actions, for a discussion on water supply impacts and the use of other water management actions by water users who may experience reductions in Sacramento/Delta supplies under the proposed Plan amendments.
260	230	[ATT 7] As an initial matter, Page 6-89 of the DSR acknowledges it “is difficult to predict with certainty how reduced Sacramento/Delta surface water supplies will affect water transfers. With new instream flow and cold water habitat requirements, overall supplies of water from the Sacramento/Delta will decline. This may result in less water available for transfer.” The DSR includes a summary of the impacts and mitigation measures relative to the PPA; in regard to water transfers, Table 7.1-2 identifies potentially significant impacts to the following resource categories: Agriculture and Forest Resources, Biological Resources – Terrestrial, Biological Resources – Aquatic, Greenhouse Gas Emissions, Hydrology and Water Quality – Surface Water, Hydrology and Water Quality – Groundwater, Noise, and Utilities and Service Systems. The proposed mitigation measures for those water transfer related impacts largely identify “oversight and approval of water transfers”. (DSR, Table 7.1-2.) Unfortunately, the DSR does not provide detail or analyze estimated quantities of transfer water that may be made available from the Sacramento Valley, for example, that would assist in providing water supplies to offset reductions under the PPA. The DSR should identify and evaluate potential transfer quantities and frequency that may be available from watersheds in order to adequately assess those transfers and any potential adverse impacts resulting from remaining unmet water demands under the PPA.	The impact conclusions made in the draft Staff Report do not rely on the implementation of other water management actions. Even if more detailed information on water transfers could be known, the additional information would not change these impact conclusions. The Staff Report recognizes that the availability of replacement supplies may be limited. Section 6.6.1.2, Water Transfers, includes information on transfer quantities from one region to another and a discussion of how transfers change with hydrologic conditions and trends over time. Please see 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 pricing and availability of water transfers under possible future conditions.
260	231	[ATT 7] Groundwater Substitution Under the State Water Board’s PPA identified in the DSR, the reduced surface water diversions under the unimpaired flow approach will result in additional groundwater pumping by agricultural users, cities, and others. Those reduced diversions could delay or jeopardize efforts within the Sacramento Valley to maintain sustainability of the groundwater system under SGMA,	Given the inherent uncertainties involved in modeling agricultural impacts, the Staff Report uses a reasonable and conservative approach to evaluating potential agricultural impacts of the flow scenarios. The analysis of potential changes in crop acreage presented in Section 7.4, Agriculture and Forest Resources, includes estimates obtained from the SWAP model. As described in Section 7.4 of the Staff Report, because of uncertainties about groundwater availability and water users’

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		create economic impacts (groundwater pumping expense), cause adverse environmental impacts (groundwater dependent ecosystem impacts), exacerbate regional or State electrical power supply constraints (increase electricity use to pump groundwater), and other potential impacts and consequences. Relative to additional groundwater pumping and associated effects analysis under the PPA, the DSR includes results from the Statewide Agricultural Production (SWAP) model. The SWAP model evaluates effects by region; those that cover the majority of entities that have participated in prior groundwater substitution transfers within the Sacramento Valley include regions 3A, 3B, 4, 5, 6, and 7. Estimated additional groundwater pumping, expressed in the DSR as “maximum replacement groundwater pumping” within those six regions is over 334,000 AF [Footnote 9: Pages A3-18 and A3-19 of the DSR identify that in “the Sacramento/Delta, groundwater pumping lifts range from approximately 54 to 143 feet, and pumping costs range from \$46/AF to \$98/AF.” Thus, the expense for 334,000 AF of additional groundwater pumping as a result of the PPA in the six regions would range from approximately \$15.3 million to approximately \$33.7 million for an average year or a dry year.], [Footnote 10: Page 7.10-14 of the DSR identifies that “water supplied from groundwater requires approximately 400 to 1,200 kilowatt hours of energy per acre-foot (AF)”. Thus, the electrical energy needs for 334,000 AF of additional groundwater pumping in the six regions would range from approximately 133 gigawatt hours (GWh) to approximately 400 GWh. Presumably, the majority of that pumping would occur during the irrigation season and partially during peak demand periods for electrical use. Note that not all of the groundwater pumping would be supplied by electrical power. Section A5.3.3.1 on page A5-49 of the DSR identifies that energy needed for groundwater pumping and water transfers “were not included in the power flow assessment because of the difficulty in predicting the actions people would take in response to reductions in water supply.” The DSR should evaluate the effects resulting from energy consumption, despite the difficulty.] for an average year (DSR Appendix A3, Table A3-15) and the same quantity for a dry year (DSR Appendix A3, Table A3-16).	response to reduced Sacramento/Delta supply regarding groundwater pumping, a range between two bookends or bounds are evaluated: maximum replacement groundwater pumping and no replacement groundwater pumping. In this way, the analysis captures the breadth of likely responses, which would be somewhere in between—meaning that water users likely would increase groundwater pumping to replace some amount of the reduced surface water supplies, but not at volumes sufficient to replace all of the reduced surface water supplies. The amount of groundwater pumping assumed under the no replacement groundwater pumping bookend was limited to the existing groundwater pumping levels within each SWAP region during an average year; this represents a situation in which growers and/or water suppliers do not draw any new groundwater to replace reduced Sacramento/Delta surface water supply. Under maximum replacement groundwater pumping, it was assumed that growers could use groundwater in addition to local water supplies to offset some or all Sacramento/Delta supply reductions. Importantly, this is not a directive that farmers and ranchers should or would replace Sacramento/Delta reductions with groundwater pumping, especially in light of requirements to achieve sustainability in basins subject to SGMA, but a good faith attempt to capture the potential maximum impacts on the groundwater basin from replacement pumping. The maximum amount of groundwater pumping allowed for the maximum replacement groundwater bookend was capped at the highest annual pumping levels within each SWAP region as estimated by SacWAM over the 1923 through 2015 SacWAM hydrologic period, or for areas not covered by SacWAM, the 2014 estimated groundwater pumping capacity in the SWAP model. This approximates the maximum amount of replacement groundwater available without new groundwater development. Section 7.8, Energy, evaluates increased energy costs associated with increased groundwater pumping and water transfers. Please see Common Response 7.4, Agricultural Resources, for

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			further discussion regarding the two bookends and impact on groundwater.
260	232	[ATT 7] Similar to other findings in the DSR, the “maximum replacement groundwater pumping” is expressed as an average; and thus, the impacts will be greater in some years, presumably drier years, resulting in potential detrimental effects to the groundwater aquifers as a result of the PPA. Moreover, as discussed in NCWA's comments, the “dry” year used to identify “maximum replacement groundwater pumping” in the DSR is only an average of dry and critical years, so it does not capture the high levels of groundwater pumping that would occur consecutively in multi-year droughts under the PPA. The estimated additional groundwater pumping within the six regions identified above is significant. As further indicated above, during 2021, water transfers from the Sacramento Valley were at or near the highest quantities made available historically. The quantity of surface water made available by groundwater substitution from the Sacramento Valley in that year was over 110,000 AF. This occurred at a time when surface water supplies for the Sacramento River Settlement Contractors were limited to 75% of the contract quantities, water supplies for entities with Feather River Diversion Agreements were limited to 50% of the agreement quantities, and water supplies to refuges were reduced. In addition, the water supply available under the Tehama-Colusa Canal Authority water service contract with Reclamation was limited to approximately 3.5%; and other water supplies within the Sacramento Valley were reduced due to water supplies under contracts, and/or reduced by the State Water Board through water right curtailments. Similar reduced surface water supplies existed during 2015.	The groundwater impact analyses presented in 7.12.2, Groundwater, and 9.7.12.2, Groundwater, are reasonable representations of potential maximum impacts on the groundwater basin from replacement pumping, which were concluded to be potentially significant, even with mitigation measures. However, this is not a directive that farmers and ranchers should or would replace Sacramento/Delta reductions with groundwater pumping, and existing requirements, such as SGMA, may limit pumping in some areas. Chapter 6, Changes in Hydrology and Water Supply, and Common Response 6.1, Sacramento Water Allocation Model and Changes in Hydrology and Water Supply, describes how SacWAM incorporates the full hydrologic period (1923–2015), which includes multiple multi-year droughts and their cumulative effects on water supply. SWAP uses these SacWAM inputs and is structured as an annual model that estimates profit-maximizing crop adjustments under water shortages. While the model does not simulate consecutive-year drought impacts on individual farm operations, it reflects drought conditions through its inputs. The draft Staff Report also notes that impacts in any given year may be greater or less than the “Dry Year” results, but additional modeling would not change the determination of potentially significant impacts. Furthermore, the 2023 draft Staff Report states that the impacts in any particular year may be greater or less than the SWAP model results for the “Dry Year” condition. For more information on Dry Year versus Critically Dry Year and multi-year drought used in SWAP modeling, please see Common Response 7.4, Agricultural Resources. For more discussion on groundwater modeling, SWAP, and agricultural analysis, including a discussion of multi-year drought analysis, potentially significant impacts to groundwater and their mitigation measures, please see the groundwater impact analysis discussion in Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act.
260	233	[ATT 7] The PPA identified in the DSR will reduce surface water supplies for deliveries during the irrigation season, which would otherwise be used to minimize groundwater pumping by	Please see the response to comment 260-234.

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		agricultural users, and will also result in reduced incidental groundwater recharge through unlined canals, unlined ditches, and fields that would otherwise occur with surface water deliveries. The PPA will cause groundwater levels within the subbasins to decline and will result in adverse impacts and other undesirable results under SGMA, such as land subsidence [Footnote 11: Table 1-1 of the DSR identifies potentially significant impacts to Geology and Soils as follows: “Lower groundwater levels could exacerbate existing problems associated with ground subsidence”.]. For example, in the recent 2020 through 2022 drought, groundwater levels declined at many areas of the Sacramento Valley which resulted in some land subsidence [Footnote 12: See groundwater level data and subsidence data contained in DWR’s SGMA Data Viewer: https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#landsub.], predominantly west of the Sacramento River. Additional groundwater pumping under the PPA could exacerbate land subsidence, which would further limit groundwater substitution water transfers. The approval process by DWR and Reclamation does not allow for groundwater substitution transfers to continue when groundwater levels reach or exceed the historical low for each production well and associated suitable monitoring well as a means to avoid causing or exacerbating land subsidence (as well as other potential adverse impacts). The DSR should analyze and quantify the estimated groundwater substitution pumping that may be possible under the combination of PPA and SGMA requirements [Footnote 13: Page 6-90 of the DSR recognizes that under the PPA, “groundwater substitution and pumping transfers could be less feasible due to SGMA.” The DSR should be more specific in the analysis to quantify potential transfers.].	
260	234	[ATT 7] Groundwater substitution transfers involve obtaining approvals from agencies in order to ensure there are no significant adverse impacts to other legal users of water or the environment [Footnote 14: For example, see Mitigation Measure GW-1 in Section 3.3.4 on page 3.3-25 of the Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report prepared by Reclamation and the San Luis & Delta- Mendota Water Authority, dated September 2019.]. The approval process considers current groundwater conditions,	The proposed Plan amendments do not encourage or require increased groundwater pumping. The Staff Report acknowledges that it is reasonably foreseeable that water users may choose to increase groundwater pumping in response to reduced Sacramento/Delta water supply. Possible changes to water supplies, which include water transfers, are discussed in Staff Report Chapter 6, Changes in Hydrology and Water Supply. As stated in Section 6.6.1.2, Water

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		anticipated groundwater conditions during the transfer period, and other factors. With the estimated additional groundwater pumping that is identified in the DSR under the PPA and the associated impacts to groundwater levels, together with the requirement to avoid undesirable results under SGMA [Footnote 15: Page 8-94 of the DSR identifies "this analysis assumes that some water users could choose to increase groundwater pumping to offset reduced Sacramento/Delta supplies; however, the analysis does not consider that groundwater may be unavailable or locally restricted in some locations." Whether groundwater pumping may be limited is an important consideration relative to potential availability to conduct groundwater substitution pumping for transfer under the PPA. The DSR should include a detailed analysis of limitations to pump groundwater.], I expect approvals for groundwater substitution transfers to be difficult, if not impossible, to obtain for the vast majority of those that have occurred historically within the Sacramento Valley. This is due to the requirements under the applicable approval processes identified in this letter, as well as concerns that have been raised by agencies and through comments to the State Water Board relative to prior groundwater substitution transfers and associated potential impacts to third party water users and the environment. In addition, some entities within the Sacramento Valley have supported retaining sufficient groundwater volumes of an adequate quality to be available for overlying landowners prior to conducting groundwater substitution transfers. For that reason, and as an example, in 2022 the Sacramento River Settlement Contractors elected to not pursue groundwater substitution water transfers in that year when surface water supplies were reduced by approximately 82%. It is likely that water supply reductions due to the PPA would similarly preclude or limit groundwater substitution transfers.	Transfers, reduced surface water supplies from the Sacramento/Delta could affect the water transfer market in several ways, although exact outcomes are uncertain. Overall, implementation of the Plan amendments would reduce Sacramento/Delta water supplies at certain times and locations that could, in turn, limit the amount of surface water available for transfer. At the same time, changes in water supply could increase the value of transfer water, thereby incentivizing transfers and leading to transfers from lower net revenue crops to higher net revenue crops or for municipal/urban uses. A region-specific analysis on whether groundwater pumping is, or may be, limited in certain locations is beyond the scope of the plan update. Section 7.12.2, Groundwater, provides an environmental analysis of the potential increased groundwater use in response to the proposed Plan amendments. The Staff Report also considers various adverse effects on groundwater in a qualitative manner, such as reduced incidental groundwater recharge, land subsidence, and challenges associated with Sustainable Groundwater Management Act (SGMA) compliance. For medium and high priority basins subject to SGMA, the Groundwater Sustainability Plan (GSP), or alternative document in some cases, is the best approach for managing groundwater and surface water resources sustainably. Groundwater Sustainability Agencies (GSAs) are required to consider regulatory requirements on water resource related plan(s) that may affect the GSP (Wat. Code § 10727.2(g)) and public water agencies have been on notice since the Board issued its Supplemental Notice of Preparation for the Sacramento/Delta update in January 2012 (i.e., approximately three years before SGMA took effect) that the Board was seeking to address "the Bay-Delta's ecology and water quality" by reviewing needed changes to Delta outflow, etc. Thereafter, the Board widely distributed a Framework for the Sacramento/Delta Update to the Bay-Delta Plan in July 2018 to public water agencies which proposed an "inflow level of 45-65% of unimpaired flow" in the Sacramento River watershed "starting at 55%." This means that GSA's were provided detailed notice of proposed instream flow increases at least one and a half to three and a half years before they adopted their GSPs (due by January 2020 in critically overdrafted basins

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			and by January 2022 for all other basins subject to SGMA). GSAs are also required to periodically evaluate GSPs and make necessary course adjustments to account for changing conditions or circumstances in the basin to achieve groundwater sustainability goals (Wat. Code § 10728.2). Please see Common Response 6.3, Water Supply and Other Water Management Actions, for more discussion on water transfers, Common Response 4.2, Drought and Climate Change, for more information regarding impacts resulting from multi-year droughts, and Common Response 7.4, Agricultural Resources, for more information on Dry Year versus Critically Dry Year and multi-year drought used in SWAP modeling. For discussion of how the Sacramento/Delta update to the Bay-Delta Plan aligns with SGMA please see the discussion regarding SGMA considerations in Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act.
260	235	[ATT 7] Based on the foregoing, it is my opinion that groundwater substitution transfer approvals will be more difficult, if not impossible to obtain, under the PPA [Footnote 16: The potential limited ability to transfer water is recognized in the DSR: “While water transfers from north to south potentially would be more limited as a result of the proposed Plan amendments, transfers between water users within a region could be an effective strategy for meeting local demands or responding to shortages associated with longer droughts or disruptions in deliveries.” (DSR, 6-89) However, the analysis of the frequency and quantities of transfer water to assist in meeting water supply needs is unclear and should be analyzed in the DSR together with limitations on the transfer quantities due to SGMA requirements and other factors identified in this letter.] due to the adverse impacts to groundwater conditions resulting from significant quantities of groundwater pumping estimated in the DSR to address water supply deficits. In my opinion, groundwater substitution transfers would either not occur under the PPA, or would occur with significantly reduced volumes at a significantly lesser frequency as compared to historical groundwater substitution transfers.	The Staff Report does not assume that water transfers, either based on groundwater substitution or not, will “mitigate” impacts from water supply reductions under the proposed Plan amendments. The use of “mitigate,” a CEQA term, infers that an impact that is significant will be reduced to less than significant with the incorporation of an action. However, the Staff Report identifies that while, for example, water demand management and water management actions such as groundwater storage, water transfers, and water recycling could be a response to water supply shortages (Section 7.4.2.5), it does not conclude that impacts to agriculture and forest resources would be less than significant. Instead, it acknowledges that “[c]onversion could also occur from increased water transfers, particularly in rapidly developing areas where land prices are competitive” (Section 7.4) Likewise, in the hydrology and water quality analysis for surface water, the Staff Report acknowledges “[i]f more groundwater substitution transfers take place, water quality impacts could result from increased pumping in the source area” (Section 7.12.1.2, Impact Analysis). In the groundwater analysis, the Staff Report concludes that effects on groundwater levels would be potentially significant. The Staff Report recognizes that diversifying water portfolios, including through water transfers, and implementing SGMA could help, but

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			that the “State Water Board cannot guarantee that measures always will be adopted or applied in a manner that would fully mitigate impacts. Therefore, unless and until the mitigation is implemented, the impact remains potentially significant” (2023 draft Staff Report Section 7.12.2, Groundwater, p. 7.12.2-50). These are a few examples. Section D.3, Municipal Supply Economic Effects Analysis, includes information on the replacement water supply needed to meet demands under different scenarios for various demand units. Numerous variables factor into the decision to seek transfer opportunities to make up for supply deficiencies, including the efficacy of water conservation and efficiency measures. It would be speculative to make broad modeling assumptions regarding the actions of prospective buyers and willing sellers, and whether a transfer agreement might be constrained by local GSP/SGMA considerations, or other considerations, for the purpose of quantitative analysis. As a result, any conclusions drawn from such an analysis would have limited, if any, utility for the purposes of comparing alternatives, disclosing environmental impacts, determining mitigation measures, or complying with CEQA. Please see Common Response 7.1, General CEQA and Approach to the Analysis, for discussion on the scope and required level of detail in the analyses. Please also see Common Response 6.3, Water Supply and Other Water Management Actions, for discussion on the availability of water transfers under possible future conditions.
260	236	[ATT 7] Crop Idling/Shifting Water Transfers In addition to adverse impacts to groundwater conditions identified above, reduced surface water supplies as a result of the PPA may result in uncompensated land fallowing that creates adverse environmental impacts (e.g., increased dust emissions from dry fields; reduced habitat for terrestrial species such as the Giant Garter Snake and the Tri-Colored Blackbird), and adverse economic impacts to entities and their customers, individual growers, the Sacramento Valley region, and the State (reduced agricultural economy and associated effects to businesses and people servicing the agricultural economy). There will also be resulting economic impacts to individual	The Staff Report adequately analyzes and discloses the environmental impacts and economic effects of the project as required by CEQA and the Porter-Cologne Water Quality Control Act. The Staff Report appropriately evaluates agricultural impacts that would occur under the flow scenarios, and provides estimates of changes in crop acreage using the best available information. As discussed in Section 7.4, Agriculture and Forest Resources, the SWAP model is used to evaluate the agricultural impacts of the change in water supply. Please see Section 7.4, Agriculture and Forest Resources, and Appendix A3, Agricultural Economic Analysis: SWAP Methodology and Modeling Results, of the Staff Report for a more detailed description of the SWAP model and methods used to estimate agricultural impacts.

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		entities, such as reduced water sales from water districts/companies to customers. As a result of these impacts, the State Water Board's PPA will create adverse economic impacts in areas associated with the reduced surface water deliveries, intensifying impacts to large land areas within the Sacramento Valley, including many that are currently identified as Disadvantaged Communities and Severely Disadvantaged Communities.	Section 8.4, Agricultural Water Supply Economic Effects of 2023 draft Staff Report and final Staff Report, analyzes the potential economic effects on California's agricultural economy from changes in water supply, and includes estimated changes in crop revenues from the modeling. Additional information about the analysis of regional economic effects is provided in Common Response 8.1, Economic Analysis and Other Considerations. Additional impacts of crop idling and water transfers are adequately disclosed in the Staff Report. For example, Section 7.5, Air Quality, discusses that reduced Sacramento/Delta supply to agriculture could result in agricultural land fallowing, which could result in increased fugitive dust if crop or vegetation stubble cover does not remain or vegetative regrowth does not occur. However, the fact that these lands may no longer be irrigated at present levels of water use does not mean they would necessarily be fallowed in perpetuity or potentially converted to nonagricultural uses. Section 7.6.1, Terrestrial Biological Resources, acknowledges that changes in water supply could negatively affect special-status wildlife species that rely on Sacramento/Delta water supplied to wildlife refuges and certain agricultural lands. In addition, surface water transfers based on cropland idling could affect special-status terrestrial species that use agricultural fields for forage, cover, and nesting habitat. Environmental impacts and economic effects relevant to DACs are discussed in multiple sections and chapters of the Staff Report. Please see response to Comment 260-76 regarding the environmental and economic analyses and DACs.
260	237	[ATT 7] Relative to effects upon crop acreage from the PPA, the DSR includes results from the SWAP model. Comparing results from Table A3-29 and Table A3-32 of the DSR for the six regions identified above, the total reduction in crop acreage is estimated to be over 139,000 acres during a dry year without groundwater replacement pumping under a 55% UIF scenario. Similar to other findings in the DSR, the reduction in crop acreage is expressed as an average; and thus, the impacts will be greater in some years, resulting in adverse impacts due to the PPA. As indicated in Figure 8 [Exhibit 8 of ATT 6] of the MBK Engineers report included in comments from NCWA titled Technical Review	Given the inherent uncertainties involved in modeling agricultural impacts, the Staff Report uses a reasonable and conservative approach to evaluating potential agricultural impacts of the flow scenarios. The analysis of potential changes in crop acreage presented in Section 7.4, Agriculture and Forest Resources, includes 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. Please see Common Response 7.4, Agricultural Resources, and Common

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		of the Draft Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan and Associated Modeling (Technical Report), dated January 2024, under a 55% UIF scenario, rice acreage alone “will be reduced by 150,000 to 200,000 acres or more in multiple periods of consecutive years and may reach more than 250,000 acres, similar to the reductions that occurred in 2022 on the westside of the Sacramento River.” Reductions in other crop acreages would also occur under the PPA. In addition, water supplies to refuges would be reduced under the PPA. (Technical Report, Figure 9 [Exhibit 9 of ATT 6]) For reference, the acreage associated with crop idling/shifting water transfers by the Sacramento River Settlement Contractors during 2015 and 2021 was approximately 40,600 acres and 33,600 acres [Footnote 17: The acreages are calculated based on the total quantities of surface water transferred by crop idling/shifting divided by the applicable duty for rice (assumes all rice fallowing). Portions of the quantities of surface water transferred in these years may have also included other crops that were idled or shifted; however, the majority of the lands idled/shifted involved decreased rice acreage.], respectively.	Response 8.1, Economic Analysis and Other Considerations, for additional information on the SWAP model, agricultural impacts, and agricultural economic effects. Table 7.4-18 in the 2023 draft Staff Report shows the SWAP estimated changes in irrigated crop acreage in the Sacramento/Delta for a dry year if groundwater is not used to offset surface water supply reductions. As shown in Table 7.4-18, approximately 144,000 acres total within the Sacramento/Delta watershed are estimated by the SWAP model to be fallowed under the 55 scenario. Of this amount, approximately 74,400 acres consists of fallowed rice acres. The MBK Engineers Report referenced by the commenter estimates a much larger reduction in rice crop acreage of 139,000 acres under the 55 scenario that is not reasonable for several reasons. First, the MBK Engineers Report appears to assume that all Sacramento/Delta surface water supply reductions to agriculture in the Sacramento/Delta watershed would affect only rice growers, and that these changes would not affect any other crop types. It is not reasonable to assume that all changes in Sacramento/Delta water supply to agriculture would affect only rice crop growers. Nearly all of California’s rice acreage is located within a few counties in the Sacramento River watershed, and the actual Sacramento/Delta surface water supply reductions as estimated by SacWAM and presented by demand node in Appendix A1, Sacramento Water Allocation Model Methods and Results, would be expected to be distributed among a much larger geographic area and group of water users than the MBK Engineers Report analysis appears to assume. Actual crop acreage changes would depend on a number of different economic and other factors, including the priority of individual water right diversions, availability of local supplies, and other factors. In addition, the MBK Engineers Report analysis appears to assume that any reduction in agricultural water supply would result in fallowed lands. It is not reasonable to assume that all growers would respond to reduced Sacramento/Delta supplies by fallowing land. In actuality, in response to reductions in Sacramento/Delta supply, individual water users may choose to increase groundwater pumping, where available and not locally restricted, substitute with lower-

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			water-use crops, engage in deficit irrigation, or fallow land. Finally, the MBK Engineers Report analysis appears to have estimated all rice crop acreage reductions by comparing rice crop acreage under the flow scenarios for each individual year to the baseline maximum amount of rice crop acreage under full water supply conditions across all years, which does not consider that Sacramento/Delta surface water supplies to agriculture are less for drier years than wetter years under existing conditions, and therefore, baseline rice crop acreage is less during drier years than wetter years under existing years. As a result, the rice crop acreage reductions estimated in the MBK Engineers Report are artificially high for drier years. To contrast, the Staff Report's analysis of impacts on agriculture is informed by the SWAP model, which estimates the cropping pattern that maximizes the net returns to agricultural production subject to resource constraints, technical production relationships, and market conditions. SWAP incorporates information on the availability of water supplies within a SWAP modeled region, such as SWP and CVP deliveries, local surface water supplies, and groundwater in its analysis. As conditions change within a SWAP modeled region (e.g., the quantity of available SWP and CVP water supply decreases or the cost of groundwater pumping increases), the model optimizes production by adjusting the crop mix, water sources and quantities used, and other inputs. SWAP estimates that land will be fallowed when that is the most cost-effective response to changes in resource conditions. In addition, to respond to comments received on the SWAP analysis presented in the Staff Report, supplemental SWAP model runs were conducted for the driest water year (1977) intended to represent the last year of a multi-year drought. The supplemental SWAP model results for the driest water year (1977) intended to represent the last year of a multi-year drought are presented in Common Response 7.4, Agricultural Resources, for changes in crop acreage, and in Common Response 8.1, Economic Analysis and Other Considerations, for the corresponding changes in crop revenue. These supplemental results show that although Sacramento/Delta surface water supplies would be reduced under the flow scenarios, water users

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			already experience limited agricultural water supplies during drought conditions that are not attributed to the flow scenarios.
260	238	[ATT 7] The DSR also shows results for a dry year with maximum replacement groundwater pumping of over 334,000 AF [Footnote 18: Section 5.6.2.4 of the DSR identifies that “voluntary implementation plans would be required to include measures to coordinate implementation of the Bay-Delta Plan with groundwater management activities, including with implementation of SGMA to ensure that implementation activities do not contribute to groundwater overdraft, dewatering of groundwater-dependent ecosystems, and surface/groundwater interaction.” Thus, the estimated quantity of additional groundwater pumping to offset reduced surface water supplies under the PPA may be limited, resulting in uncompensated land following of well over an average of 52,000 acres under a 55% UIF scenario.] which results in reduced crop acreage of over 52,000 acres under a 55% UIF scenario. The DSR identifies that dry years are estimated as the average of Dry and Critical water year types. (DSR, A3-8.) Thus, the reduced crop acreage will be greater in some years.	The Staff Report acknowledges that changes in Sacramento/Delta surface water supply will result in potentially significant impacts on agriculture. Changes in crop acreage in the Sacramento/Delta and San Joaquin Valley are estimated using the SWAP model, for average and dry hydrologic conditions. Because of the uncertainties about groundwater availability and water users’ response to Sacramento/Delta supply regarding groundwater pumping, two bookends or bounds were evaluated using SWAP: maximum replacement groundwater pumping and no replacement groundwater pumping. Actual conditions would likely fall between these extremes, with water users increasing groundwater pumping to offset some surface water reductions, but not enough to fully replace lost supplies. Given the inherent uncertainties involved in modeling agricultural impacts, the Staff Report uses a reasonable and conservative approach to evaluating potential agricultural impacts of the flow scenarios. SWAP is the best available, peer reviewed model for estimating the effects associated with changes in water supply on agricultural production in the Central Valley. In addition, the Staff Report notes that impacts to agriculture and agricultural economic effects in any particular year may be greater or less than the SWAP model results for the “Dry Year” condition. However, in response to comments received on the SWAP analysis presented in the Staff Report, supplemental SWAP model runs were conducted for critically dry water years. The supplemental SWAP model results for critically dry water years are presented in Common Response 7.4, Agricultural Resources, for changes in crop acreage, and in Common Response 8.1, Economic Analysis and Other Considerations, for the corresponding changes in crop revenue. Overall, these supplemental SWAP results provide additional information requested by commenters, but are consistent with the analyses already presented. The 2023 draft Staff Report already identifies potentially significant impacts on agricultural production and identifies adverse agricultural economic effects, and these additional analyses do not change the conclusions of

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			the environmental and economic analyses presented in the Staff Report. Please see Common Response 7.12.2, Groundwater and Sustainable Groundwater Management Act, for further discussion of consideration of SGMA in the analysis.
260	239	[ATT 7] Further, maximum replacement groundwater pumping may have adverse impacts, as noted above, or some areas may not have useable groundwater; and thus, additional fallowing may be unavoidable in order to maintain sustainability of the groundwater subbasins pursuant to SGMA.	Please see the response to comment 260-232.
260	240	[ATT 7] Crop idling/shifting water transfers involve obtaining approvals from agencies in order to ensure that there are no significant adverse impacts to other legal users of water or the environment [Footnote 19: For example, see Mitigation Measure VEG and WILD-1 in Section 3.8.4 on page 3.8-38 of the Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report prepared by Reclamation and the San Luis & Delta-Mendota Water Authority, dated September 2019.]. The approval process considers recent historical irrigated acreage, anticipated surface water availability during the transfer period, and other factors. With the estimated fallowing that is identified in the DSR under the PPA and the associated adverse impacts to wildlife, together with the requirements to avoid additional adverse impacts to the environment as a result of a water transfer, I expect approvals for crop idling/shifting transfers under the PPA to be difficult, if not impossible, to obtain for the vast majority of those that have occurred historically within the Sacramento Valley. This is due to the requirements under the applicable approval processes identified in this letter, as well as concerns that have been raised by agencies and through comments to the State Water Board relative to crop idling/shifting water transfers and associated potential impacts to the environment. In addition, some entities within the Sacramento Valley have supported maintaining crop production to retain California's share of the world market for crops such as rice, as well as to minimize adverse effects to the regional economy and ancillary supporting businesses, prior to conducting crop idling/shifting water transfers. For that reason, and as an example, in 2022 the Sacramento River Settlement Contractors elected to not pursue crop idling/shifting water transfers in that year when surface water supplies were reduced	Please refer to the response to comment 260-222.

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		by approximately 82%. Similarly, entities with Feather River Diversions Agreements did not participate in crop idling/shifting water transfers in 2015, 2021, and 2022 when surface water supplies were reduced. It is likely that reductions below those contract/agreement quantities due to the PPA would similarly preclude or limit crop idling/shifting transfers. Based on the foregoing, it is my opinion that crop idling/shifting transfer approvals will be more difficult, if not impossible to obtain, under the PPA [Footnote 20: The potential limited ability to transfer water is recognized in the DSR: “While water transfers from north to south potentially would be more limited as a result of the proposed Plan amendments, transfers between water users within a region could be an effective strategy for meeting local demands or responding to shortages associated with longer droughts or disruptions in deliveries.” (DSR, 6-89) However, the analysis of the frequency and quantities of transfer water to assist in meeting water supply needs is unclear and should be analyzed in the DSR together with limitations on the transfer quantities due to regulatory requirements and other factors identified in this letter.] due to the adverse impacts to wildlife and the economy resulting from extensive land fallowing to address water supply deficits. In my opinion, crop idling/shifting transfers would either not occur under the PPA, or would occur with significantly reduced volumes at a significantly lesser frequency as compared to historical crop idling/shifting transfers.	
260	241	[ATT 7] Water Transfer Market Prices As indicated in Section 8.3.3 of the DSR, the “market price for transferred water can vary widely and is affected by available seller supply and buyer need, supply reliability, transaction volume, duration of lease, location of both seller and buyer, and available transport infrastructure.” The DSR also acknowledges that “[f]orecasting future water prices is complex, requiring knowledge and information regarding supply alternatives, future demand and market conditions, and behavior of willing sellers and buyers in response to market prices.” (DSR, 8-34.) The DSR concludes that the “analyses in this chapter assume that there could be greater demand pressure in the water transfer market	Please see Common Response 8.1, Economic Analysis and Other Considerations, for discussion on water transfers.

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		such that future prices may be higher than recent historical trends. For the purposes of the municipal water supply economic effects analysis presented in Section 8.5, future transfer prices are assumed to be \$500 per AF for transfers to the Bay Area, \$500 per AF for transfers to the Central Coast, \$500 per AF for transactions to and within the San Joaquin Valley region, and \$750 per AF for transfers to the Southern California region.” (DSR, 8-34 and 8-35; DSR, Table D-9)	
260	242	[ATT 7] As background, water transfer market prices for temporary water transfers originating from the Sacramento Valley, such as those involving the Sacramento River Settlement Contractors, were generally less than \$125 per AF prior to 2009. Those transfers provided needed water supplies for beneficial uses primarily within municipal and agricultural areas downstream of the Bay- Delta; this section the letter addresses transfers under those key circumstances. Although transfers did not always occur for those purposes in the same year, during years when transfers to municipal entities coincided with transfers to agricultural entities, the market price for temporary transfers was approximately \$10 per AF more for municipal entities. Since 2009, the market prices for water transfers from the Sacramento Valley, as well as the frequency of water transfers, have increased. The reason for the increases is primarily due to a changed regulatory condition due to limitations under the biological opinions [Footnote 21: See National Oceanic and Atmospheric Association Fisheries Service Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project, June 4, 2009; and the U.S. Fish and Wildlife Service Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project and State Water Project, December 15, 2008.] on the Coordinated Operations of the Central Valley Project and State Water Project. In 2009, DWR’s Drought Water Bank purchased temporary transfer water at \$275 per AF. Due to improved hydrologic conditions, there were fewer water transfers during 2010 at a market price of \$225 per AF. Following the wetter years of 2011 and 2012, water transfers occurred in 2013 at a price of \$190 per AF. In the continued	The State Water Board has considered the information provided by this commenter. As explained in water transfers discussion in Common Response 8.1, Economic Analysis and Other Considerations, the per acre-foot costs of water are intended to include carriage losses and administrative costs. It is speculative to assume what additional costs might be attributed to individual transfers. In addition, please see response to Comment 260-75 regarding the feasibility and costs of water transfers as an alternative water supply source under the flow scenarios.

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		drought period thereafter; temporary transfer market prices increased to \$500 per AF in 2014 [Footnote 22: Page 8-34 of the DSR identifies that “in 2014, prices rose to an average of \$779/AF. In the Southern California region, average prices generally ranged between \$200/AF and \$300/AF, with fluctuations in years with single-year transfers.” In addition, the DSR also identified that “during the severe drought in 2014–2015, agricultural buyers paid a premium above municipal buyers to prevent the loss of established tree crops.” (DSR, 8-34) It is unclear as to the circumstances or basis for those cited transfer prices; and those are inconsistent with transactions that occurred in those years from Sacramento River Settlement Contractors and others in the Sacramento Valley, to our knowledge.] and up \$700 per AF in 2015. These two transfer years coincided with reduced water supplies under contracts/agreements with the Central Valley Project (CVP)/State Water Project (SWP), including operational changes for temperature management in Shasta Reservoir in coordination with the fishery agencies, as well as additional regulatory restrictions imposed by the State Water Board through water right curtailment and notices of unavailability in the Bay-Delta watershed. Following the wetter years of 2016 and 2017, water transfers occurred in 2018, although there was less demand for temporary water transfers in that year. The market price for temporary transfers in 2018 was largely \$400 per AF; and one entity in the Sacramento Valley negotiated a price of \$569 per AF. Following the wetter year of 2019, the temporary water transfer market price was \$350 per AF in 2020. The market price for temporary transfers increased to \$575 per AF in 2021 due to the continued drought; and by 2022, the market price was \$833 per AF. Transfers during 2021 and 2022 coincided with reduced water supplies under contracts/agreements with the CVP/SWP, including operational changes for temperature management in Shasta Reservoir due to regulatory requirements imposed by the State Water Board, as well as additional regulatory restrictions imposed by the State Water Board through water right curtailment and notices of unavailability in the Bay-Delta watershed. As a result of those conditions, and as indicated above, Sacramento River Settlement Contractors elected to not	

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		pursue transfers to entities located downstream of the Bay-Delta during 2022 in order to assist in maintaining groundwater supplies for entities within the basin and to support crop production to minimize adverse effects to the economy and retain market share for crops. Similarly, entities with Feather River Diversions Agreements did not participate in crop idling/shifting water transfers in 2022 due to reduced surface water supplies. The expense of transfer water to transferees is significantly greater than the purchase price alone. This is due to factors such as, but not limited to, administrative expenses incurred by transferors and reimbursed by transferees, administrative expenses incurred directly by transferors, preparation of required environmental documentation, loss of transfer water due to Bay-Delta carriage water losses, conveyance losses through canals (e.g., Delta-Mendota Canal and California Aqueduct), and any applicable pumping, conveyance, and water treatment expenses incurred by a transferee. For example, in 2022 when the purchase price for a temporary water transfer was \$833 per AF, the Bay-Delta carriage water loss was 25% and the conveyance water loss through the California Aqueduct was approximately an additional 2.6%. After subtracting these losses, the expense of the transfer water at the turnout to agricultural entities in the western San Joaquin Valley was approximately \$1,140 per AF ($\\$833 / \{1 - 0.25\} / \{1 - 0.026\} = \\$1,140$), prior to including other expenses above such as administrative and pumping expenses. Similarly, the expense for transfer water at the turnout during 2015 approached \$1,100 per AF due to higher losses assessed by DWR and Reclamation in that year. Relative to transferors, historical water transfers have provided funding for projects such as infrastructure improvements, water use efficiency enhancements, efforts related to regulatory compliance, and other items. The DSR does not evaluate the reduction in water transfer opportunities, resulting from the PPA, and the associated adverse economic impact to transferors. Overall, these types of considerations should be evaluated in the economic impacts section of the DSR, including to assess the estimated market price for transfer water.	

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260	243	[ATT 7] As indicated above, reduced water supplies and additional regulatory requirements have resulted in increased market prices for temporary water transfers from the Sacramento Valley. Under the State Water Board's PPA, the resulting adverse effects of reduced crop acreage and increased groundwater pumping will result in less water available for transfer. As indicated above, transfers have been successful when a transferor has a reliable surface water supply during periods when a transferee does not have a reliable water supply. The PPA will likely reduce the supply relied on by a transferor and thus, reduce the likelihood and opportunity for transfers. At the same time, the reduced supplies from the Bay-Delta watershed to entities located downstream of the Bay-Delta will increase demand for transfer water. Thus, as a result of the reduced surface water supplies and increased demand for water due to the PPA, it is reasonable to conclude that the inclining trend in the market price for transfer water will continue and likely increase. The DSR should be updated to include additional supporting analyses for temporary water transfer potential (volumes, frequency, timing, etc.) and prices that may occur under implementation of the PPA, including the net economic impacts to transferees after considering losses, such as carriage water losses through the Bay-Delta and other conveyance losses. Where applicable, those economic impacts should include costs associated with monitoring, fees, pumping, treatment, and related expenses.	Please see response to Comment 260-75 regarding the feasibility and costs of water transfers as an alternative water supply source under the flow scenarios. The analysis in Chapter 8, Economic Analysis and Other Considerations, assumes that there could be greater demand pressure in the water transfer market such that future prices may be higher than recent historical trends. For the purposes of the municipal water supply economic effects analysis presented in Section 8.5, Municipal Water Supply Economic Effects, future transfer prices are assumed to be \$500 per AF for transfers to the Bay Area, \$500 per AF for transfers to the Central Coast, \$500 per AF for transactions to and within the San Joaquin Valley region, and \$750 per AF for transfers to the Southern California region. These assumed water transfer prices used in the Staff Report were higher than historical averages for all water year types, which is an appropriate and conservative assumption for the analysis. In addition, historical water transfer market prices and assumed future prices already include consideration of analyses and associated costs for completing transactions.
260	244	[ATT 8: Appendix 5—Article titled Incorporating rice straw into soil may become disposal option for growers]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
260	245	[ATT 9: Appendix 9—Document titled Economic Impacts of the 2020–22 Drought on California Agriculture]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.
260	246	[ATT 10: Appendix 10—Document titled Continued Drought in 2022 Ravages California's Sacramento Valley Economy]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1,

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			General Comments, for the approach to addressing attachments to comments.
260	247	[ATT 11: Excerpts from document titled Summer Market Performance Report]	This attachment was included with the comment letter. The attachment does not raise a specific environmental impact or economic effect of the project. Refer to Common Response 1.1, General Comments, for the approach to addressing attachments to comments.