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VIA ELECTRONIC MAIL

State Water Resources Control Board
Attn: Ms. Jeanine Townsend
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Re: Comments on Bay-Delta Water Quality Control Plan Substitute Environmental Document – Phase I

State Water Board Members:

Stockton East Water District (District) appreciates this opportunity to comment on the Recirculated Draft Substitute Environmental Document (Recirculated Draft SED or SED) prepared by the State Water Resources Control Board (State Water Board) to support potential changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary (Plan): San Joaquin River Flows and Southern Delta Water Quality (LSJR Flow Objectives and South Delta Salinity Objectives, Phase I or Project). As you know, the District has been extensively involved in the review of the LSJR Flow Objectives and South Delta Salinity Objectives and has submitted comments throughout the Phase I process. The District incorporates by reference all the previous comments and information submitted as part of the Phase I process.

At the outset, the District joins and supports the extensive comments submitted by the San Joaquin Tributaries Authority (SJTA). The SJTA raise many legal challenges to the State Water Board manner of proceeding, together with a host of California Environmental Quality Act challenges based on the Recirculated Draft SED's woeful inadequacies. We support the SJTA comments to the extent they are consistent or not in conflict with these comments. The District also joins in support of the comments submitted by Oakdale Irrigation District and South San Joaquin Irrigation District (OID/SSJID) that are specific to the Stanislaus River. Finally, the District submits for the State Water Board consideration Attachment A – Errata Comments and Attachment B – FISHBIO Memorandum.

The District has partnered with OID/SSJID on a number of very important research projects conducted by FISHBIO on the Stanislaus River. As a result, FISHBIO now has the most extensive monitoring and research of fisheries in the Stanislaus River – more than any of the

fishery regulatory agencies making recommendation for this SED. In addition, the District has funded gravel augmentation in the Stanislaus River for the benefit of the fishery. This should not go unnoticed by the State Water Board that only water users on the Stanislaus River have invested substantial time and resources into the protection and enhancement of habitat for the fall run Chinook salmon and steelhead fishery. Very little work has been done on the Stanislaus River by the regulatory agencies charged with protecting and enhancing the fishery including by the California Department of Fish and Wildlife and the National Marine Fisheries Service.

I. THE PROPOSED AMENDMENTS TO THE WATER QUALITY CONTROL PLAN THAT ARE ANALYZED IN THE RECIRCULATED DRAFT SED ARE ILLEGAL, NOT IMPLEMENTABLE AND WILL NOT ACHIEVE THE DESIRED RESULT

A. BACKGROUND

The federal Water Pollution and Control Act (Clean Water Act) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The Clean Water Act's implementing regulations allow States, Territories, and authorized Tribes to develop their own water quality standards, subject to approval by the United States Environmental Protection Agency (U.S. EPA). The Clean Water Act places "primary reliance for developing water quality standards on the states." [*Scott v. Hammond* (7th Cir. 1984) 741 F.2d 992, 994.] The U.S. EPA reviews a water quality standard promulgated by a State to ensure that it "protect[s] the public health or welfare, enhance[s] the quality of water and serve[s] the purposes of [the Clean Water Act]." [33 U.S.C. § 1313(c)(2).]

A water quality control plan is comprised of three parts: (a) identifying beneficial uses; (b) water quality objectives; and (c) a program of implementation. The State Water Board is responsible for adopting and implementing a water quality control plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary, and is required to periodically review and update the water quality control plan. [Water Code §§ 13170, 13240; 33 U.S.C. § 131(c)(1).] The water quality objectives contained in the Plan are not self-effectuating, rather, the State Water Board must act separately to implement actions delineated in the Program of Implementation. Usually the objectives are implemented by amending water rights.

B. ONLY PART OF THE SAN JOAQUIN RIVER IS BEING CONSIDERED

The Plan purportedly involve changes in flow objectives in the San Joaquin River (SJR) basin. As depicted in Figure ES-1, the SJR basin includes numerous watersheds and reservoirs, including the Friant Dam and the main stem of the river. The flow objectives included in the Plan and evaluated in the SED are based upon an August 2010 technical report on the

Development of Flow Criteria for the Sacramento–San Joaquin Delta Ecosystem (2010 Flow Criteria Report). The 2010 Flow Criteria Report “concluded that 60 percent of flow should be left in the Lower San Joaquin River for the benefit of fish.” That analysis included the entire SJR. The importance of including the entire river is evident when you look at the historic percentage contribution of flow on the river.

Appendix C

*Technical Report on the Scientific Basis for Alternative
San Joaquin River Flow and Southern Delta Salinity Objectives
February 2012 (Updated June 2016)*

Table 2-8. Median Annual Percent Contribution of Unimpaired Flow and Observed Flow by SJR Tributary and Upper SJR to Flow at Vernalis (1984 – 2009)

	Stanislaus	Tuolumne	Merced	Upper SJR at Friant	Fresno/Chowchilla/Tulare/Valley Floor
Unimpaired Flow (1984 to 2009)	20%	31%	14%	30%	2%
Observed Flow (1984 to 2009)	24%	21%	14%	8%	26%

The percent of flow contributed at Vernalis by the Stanislaus River during June and July has increased dramatically, accounting for roughly 40% of flow during these months, while the contributions from the Tuolumne have been reduced to roughly 20% during these same months (Figure 2.9). The Upper SJR contributes a much lower percentage of flow compared to unimpaired conditions. [At p. 2-24.]

Yet, the Plan would impose the unimpaired flow obligation on only the three main tributaries – completely ignoring the historical 30% contribution from the main stem. There has been no analysis of changing the parameters established in the 2010 Flow Criteria Report – a percentage contribution from the entire watershed, to imposing unimpaired flow requirements only upon part of the river. Such a change cannot be supported without that analysis.

Staff indicates that only the three tributaries are being included because they are the only salmon bearing rivers, and because Friant has already contributed through the San Joaquin River Restoration Plan settlement. Neither of these excuses support exclusion: first – the flows anticipated by the settlement have not materialized at Vernalis. Friant is not contributing its fair share, and further, the criteria should be whether or not the stretch of the river is attaining its share of what this Plan is requiring – is it meeting the 30 to 50% proposal?

C. THE SED DOES NOT IDENTIFY A NEEDED BENEFICIAL USE

The water quality objectives being proposed include a narrative objective that requires: “the maintenance of flows sufficient to support and maintain the natural production of viable

native San Joaquin River watershed fish populations migrating through the Delta.” The unimpaired flow proposal is intended to implement this Narrative Objective. However, the SED itself (Table 19-32) indicates that approximately 11,373 Central Valley Fall-Run Chinook Salmon are produced annually on the three tributaries. There is no indication in the SED that the current flow regimes on the tributaries would not “support and maintain” that population. The SED seems to conclude that if the base case is continued with no changes to the system, there will continue to be 11,373 Central Valley Fall-Run Chinook Salmon annually; therefore, the **current** flow regimes would maintain this productivity as required by the Narrative Objective. It appears that despite the wording of the Narrative Objective, the unimpaired flow proposal is actually intended to **improve**, not support and maintain production on the tributaries.

This was emphasized by one of the Peer Reviews of the 2010 Flow Criteria Report, who took issue with the conclusion in the report’s conclusion “... since 1952, the average escapement of fall-run Chinook salmon has shown a steady decline.” The peer review stated: “This statement is contradicted by the figure (3.5) associated with it. There is no obvious trend downward but rather there are a series of pronounced peaks (a pair of peaks around 1954 and 1960, then discrete ones around 1970, 1985, and 2003). Each of the peaks lasted about 8 years, with distinct ‘troughs’ in between. I think the conclusion that this was a ‘steady decline’ is not supported.” This peer review comment has not been addressed.

The unimpaired flow proposal, therefore, is not required to meet the Narrative Objective, and would therefore appear to be an unreasonable use of water.

D. THE GEOGRAPHIC SCOPE OR PLAN AREA OF THE PROPOSED PLAN IS ARBITRARY

The stated goal of the Plan amendments is to “[m]aintain inflow conditions from the San Joaquin River (SJR) Watershed sufficient to support and maintain the natural production of viable native fish populations migrating through the Delta.” [SED pg. 3-2.] Yet, rather than include the SJR watershed in the Project, the State Water Board strangely defines the Project area as only “the portion of the SJR between its confluence with the Merced River and downstream to Vernalis,” a segment of the SJR that receives flow from only three of the river’s numerous tributaries.

The State Water Board provides a weak and legally insufficient rationale for a piecemealed Plan Area that excludes the Upper SJR:

The State Water Board identified the geographic scope of the plan amendments to protect the existing fishery in the [Lower] SJR (LSJR)] Watershed—the three eastside salmon-bearing tributaries—because that portion of the watershed

supports an existing fishery that can be maintained and improved. The State Water Board will consider additional measures in future Bay-Delta Plan updates to protect beneficial uses in other areas, such as the Upper SJR, when those areas are restored and can support a fishery. [SED pg. 3-4.]

This statement only reinforces the need to include the upper SJR in the Plan. Most importantly, it will be impossible to support the existing fishery on the three eastside tributaries without the historic flows of the entire SJR, as those fish utilize the entire SJR for most of their life stages. The truncated Plan Area causes the analysis of environmental affects to come unhinged.

Further, the State Water Board makes unsupported and largely nonsensical statements to support dispensing with flows from the Upper SJR:

Though these goals do not explicitly preclude consideration of alternative flow objectives upstream of the Merced River confluence, that area does not currently support viable native fish populations, and such alternatives would not reduce or avoid impacts. For example, such an alternative would not reduce the quantity of water needed from the Stanislaus, Tuolumne, and Merced Rivers to achieve the goals. Inclusion of the flow alternatives for the SJR upstream of the Merced River confluence would increase the adverse environmental effects of the LSJR alternatives in a larger geographic area by reducing the quantity of water available for other uses in areas that rely upon water supplies in the SJR upstream of Merced River confluence. For this reason, alternatives that considered establishing flow objectives in geographic areas other than the LSJR Watershed and the Stanislaus, Tuolumne, and Merced Rivers, were eliminated from further consideration. [SED pg. 3-5.]

Frankly, it appears that without sufficient scientific or technical study, the State Water Board simply chose three tributaries of the SJR, and then drew a line around the rim reservoirs on those tributaries without support or explanation. The arbitrary designation of the Plan Area violates due process rights and water priority rules, is arbitrary and capricious and, because certain portions of the watershed are excluded, violates the well understood California Environmental Quality Act prohibition against piecemealing.

1. Limiting the geographic scope of the Plan Area Violates the Rules of Water Right Priority

Water right priority is a central principle of California water law. (*El Dorado Irr. Dist. v. State Water Resources Control Bd.* (2006) 142 Cal.App.4th 937, 938). The water right priority rules require curtailment of all junior use prior to reducing senior water rights. [*Id.* at 963-964.]

The SED's limited geographic scope violates the rules of water right priority and constitutionally protected vested rights. The SED assumes, without adequate justification from scientific or technical studies, that the water right holders within the Plan Area will be exclusively responsible to meet the LSJR Flow Objectives. However, there are water right holders upstream of the rim reservoirs, on the tributaries of the western San Joaquin watershed, and in the upper San Joaquin, that are junior to water right holders included within the Plan Area. The proposed Project requires, without legal basis, that the senior water right holders within the Plan Area will contribute to flows to meet the flow objectives before junior water right holders outside the Plan Area. This violates California's water right priority system. The State Water Board is obligated to protect water right priorities; its failure to do so by limiting the scope of the Plan Area directly contravenes this obligation, and violates the law.

The abbreviated geographic scope of the Plan Area for the LSJR Flow Objective excludes the contribution of water upstream of the rim reservoirs on the San Joaquin tributaries, the west side of the San Joaquin River, and on the upper San Joaquin River. The explanation for excluding these areas and their corresponding water contributions is inadequate and not legally supported.

a. **Contribution from Upstream of Rim Reservoirs.** The SED does not consider contributions from reservoir operation and water supply upstream of the rim reservoirs on the Stanislaus, Tuolumne and Merced Rivers, and omits explaining why the State Water Board reached the conclusion that these operations and diversions are not important. The SED omits and therefore does not evaluate respective water right priority, nor describe the amount of water diverted. Without this information and analysis, the State Water Board's conclusion that upstream contributions will not be considered is unsupported by reason or analysis.

b. **Contribution from the Upper San Joaquin River.** The Project fails to include the Upper San Joaquin River, both below and above Friant Dam, despite the fact that the Upper San Joaquin River represents approximately 28 percent of the unimpaired annual flow of the San Joaquin River. The State Water Board's rationale to exclude the Upper SJR is insufficient, and forcing the senior water right holders on the lower San Joaquin River to meet the fishery beneficial uses for the entire river without contribution from the junior water right holders on the Upper SJR violates water right priorities in an egregious manner.

c. **West Side Contribution.** The SED fails to discuss and analyze contributions to the San Joaquin River from return flows from land to the west of

the San Joaquin River. The SED fails to adequately identify the quantity and quality of water contribution from the west side in its baseline.

2. The SED Provides No Evidence that the Plan will Protect Fish and Wildlife Beneficial Uses

The Plan's flow objectives evaluated in the SED are based upon 2010 Flow Criteria Report. The 2010 Flow Criteria Report suggested that 60 percent of unimpaired inflow from the SJR from February–June would preserve the attributes of a natural variable system to which native fish species are adapted. Unlike the Plan, however, the flow recommendation in the 2010 Flow Criteria Report included the entire San Joaquin River, not merely a portion of it. The SED does not discuss this change, and does not demonstrate or even suggest that the same water quality objectives could be met by using the suggested flows in a portion, rather than the entire river; therefore, there is no demonstrated rational connection between 2010 Flow Criteria Report relied on in the SED and the Plan that proposes to rely exclusively on three of the river's tributaries to meet the same goals. Thus the SED relies on a study that studied a different and geographically larger plan and omitted any analysis to explain why this differently focused study applies.

Logic illustrates the legal error of relying on a study that considered a larger geographic watershed: it is impossible to mimic the magnitude, duration, and timing of historic flows if one-third of the contribution to the magnitude, duration and timing of the historic flows is excluded from the analysis. The SED lacks any contrary information. The Plan's failure to include the Upper SJR is contrary to the stated purpose of the Plan. The SED does not explain how relying exclusively on the Lower SJR will affect the analysis of unimpaired flow or protection of fish and wildlife. The SED also fails to provide sufficient explanation for excluding the Upper SJR from the Plan Area. For the foregoing, the SED and proposed Plan are legally deficient.

E. THE NATURAL HYDROGRAPH FALLACY

Board staff has stated that the benefits of the unimpaired flow proposal is to “restore the pattern and some limited magnitude of flow that are more closely aligned to the conditions to which native fish species are adapted.” The 2010 Flow Criteria Report on which the SED is based emphasized the importance of a natural flow regime – noting “it is important to preserve the general attributes of the natural hydrograph to which the various salmon runs adapted to over time, including variations in flows and continuity of flows.” To “mimic the natural hydrograph during the peak emigration period of February through June.”

Peer reviewers of the 2010 Flow Criteria Report emphasized that: “. . . a more natural flow regime is necessary if the fish are to recover. Indeed, I would further conclude that the other stressors such as contaminants and non-native fishes will be less consequential for salmon and steelhead in a more natural flow and thermal regime, so the benefits of flow enhancement will likely be both direct and indirect.” Despite the statements in the SED and the Peer review emphasis on the importance of natural flow regime, the proposed LSJR Flow Objective alternatives would not actually implement a natural flow regime because the program of implementation instead includes:

- a. “Optimized flow shaping” to improve temperature
- b. Flow shifting to fall
- c. Carryover storage guidelines
- d. End of September guideline
- e. Percent drawdown from storage
- f. Minimum district diversion during dry conditions
- g. Drought refill constraints

There has been no analysis of these changes, and no discussion of the impact of these manipulations in flow and timing. Such flow shaping moves away from a natural flow regime and more towards a steady state, which has created the conditions with which we are now faced that are optimal for predation.

F. THE STATE WATER BOARD MUST ADOPT A PLAN THAT REASONABLY PROTECTS BENEFICIAL USES

The State Water Board has a statutory commitment to establish flow objectives assuring the “reasonable protection of beneficial uses.” [*United States v. State Water Resources Control Bd.* (1986) 182 Cal. App. 3d 82, hereinafter “*Racanelli*”, citing Water Code § 13241.] The *Racanilli* court notes that it is the State Water Board’s obligation to attain the highest reasonable water quality “considering all demands being made on those waters” [*Id.* at 116, citing Water Code Section 13000.] In performing its role in developing water quality objectives, the Board is required to consider all competing demands for water in determining a reasonable level of water quality protection. [*Id.* at 118; Water Code § 13000.]

The Plan does not achieve the reasonable protection of beneficial uses. The Recirculated Draft SED impact evaluation suggests that the impact to water users will be minimal because reduction in available surface water will be replaced with groundwater pumping. There is actually no evaluation of the impacts to District’s agriculture production. In the Chapter 11 – Agricultural Resources it asserts no impact will occur because the District will substitute for the lack of surface water through groundwater. After noting that groundwater

pumping in most of these areas is already unsustainable, the Recirculated Draft SED fails to evaluate the impact of Sustainable Groundwater Management Act (SGMA) on this increased and continued unsustainable use of groundwater. Reductions in pumping that will be imposed by SGMA are ignored in the SED. The Recirculated Draft SED also suggests the District could utilize the Calaveras River as a municipal water supply, an unrealistic suggestion since the Calaveras River is already fully subscribed.

The Recirculated Draft SED asserts that municipal water supplies will not be affected. This is simply not true. The District has historically provided up to 50,000 acre feet of its Stanislaus River supply for municipal purposes. Implementing the plan as proposed would have drastic adverse impacts on the District's municipal users, completely eliminating their supply in many years. How is this a reasonable protection of all beneficial uses?

The Recirculated Draft SED neither contains information and data to demonstrate how the proposed Project will protect fish and wildlife beneficial uses, nor does the SED support the State Water Board's presumption that 30-50% unimpaired flow will provide benefit to fish and wildlife. The SED simply *assumes* that 30-50% unimpaired flow will increase fish populations – an assumption that does not satisfy the requirements of Water Code Section 13241. If the State Water Board has scientific evidence that demonstrates the proposed flows will benefit fish and wildlife, then the Board is required to include that evidence in the SED. Instead, the State Water Board relies exclusively upon the 2010 Flow Criteria Report as supporting its flow standards. Such reliance is neither appropriate nor sufficient for several reasons.

First, as mentioned above, the 2010 Flow Criteria Report suggested that 60% of the unimpaired flow of the entire SJR would provide benefit to fish and wildlife. The SED does not propose to require 60% of the unimpaired flow of the entire river, and yet arbitrarily concludes that requiring 30-50% flows from a portion of the river would achieve the same results.

As recognized by the State Water Board when it adopted the 2010 Flow Criteria Report, the report suggests the flows that would be needed in the Delta ecosystem if fishery protection was the sole purpose for which its waters were put to beneficial use. The State Water Board recognized that many other factors must be considered before flow objectives could be adopted. However, the Project appears to randomly select numbers from the 2010 Flow Criteria Report, and then compare them to a faulty evaluation of potential impacts to other beneficial uses. At no time does the SED evaluate the specific benefit to fishery from a 30% or 50% flow, and compare that demonstrated benefit to the potential impact to other beneficial uses. Such balancing is required to legally update the Plan.

G. THE PROPOSED UNIMPAIRED FLOW OBJECTIVES EXCEED THE STATE WATER BOARD'S JURISDICTION TO PROTECT "BENEFICIAL USES," AND IS ARBITRARY, CAPRICIOUS, AND LACKING IN EVIDENTIARY SUPPORT

The State Water Board is required to balance several factors identified in Water Code Section 13241 when developing water quality objectives, including:

- (a) Past, present, and probable future beneficial uses of water.
- (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
- (c) Water quality conditions that could reasonably be achieved through the coordinated control factors which affect water quality in the area.
- (d) Economic considerations.
- (e) The need for developing housing within the region.
- (f) The need to develop and use recycled water.

All of these factors must be identified and the State Water Board must thereafter demonstrate a rational connection between those factors and the proposed regulation. [*Racanelli*, at 182; *California Hotel & Motel Assn. v. Industrial Welfare Com.* (1979) 25 Cal.3d 200, 212.] The SED discloses that the State Water Board failed to adequately consider these factors, and the Plan does not demonstrate a rational connection, or nexus, between the factors and the proposed flow objectives for the Lower SJR.

1. The SED Does Not Confirm that the Plan Would Reasonably Protect All Beneficial Uses

In order to increase water dedicated to fish and wildlife beneficial uses the Plan Amendments decreases beneficial uses of water for agriculture, domestic, municipal and industrial uses. Before decreasing water for these other beneficial uses and increasing water for fish and wildlife, the State Water Board is required to determine whether the proposed flow objectives provide reasonable protection of beneficial uses. This determination requires the State Water Board to weigh and balance all beneficial uses and then demonstrate a rational, causal connection and nexus between the Project and the benefit to fish and wildlife beneficial use. The SED fails to include such an analysis. The State Water Board acknowledged this requirement when it adopted the 2010 Flow Criteria Report, stating: "The State Water Board's

evaluation will include an analysis of the effect of any changed flow objectives on the environment in the watersheds in which Delta flows originate, the Delta, and the areas in which Delta water is used.” [2010 Flow Criteria Report at p. 3.] Nowhere in the SED does the State Water Board undertake such an analysis of the 30-50% proposed flow criteria.

2. The Program Of Implementation For Carryover Storage In New Melones Is Also Not Supported By Substantial Evidence

In order to adequately satisfy the balancing requirement for beneficial uses, the SED must understand and demonstrate the level of protection or extent of the benefit the proposed Project will provide fish and wildlife. This level of protection must then be weighed against the adverse impacts to all other beneficial uses, including agriculture, hydropower, municipal use, etc. that the proposed Plan will adversely impact. This essential balancing of competing interests is fundamental to the development of water quality objectives. The proposed flow objectives would drain most of the reservoirs in the SJR basin, resulting in no water available for fish and wildlife, or any other beneficial uses in following years. In an attempt to prevent such a catastrophe, the State Water Board proposes in its program of implementation a requirement for minimum carry-over storage in the three tributary reservoirs. Such requirements drastically change operations of the reservoirs in the SJR basin, as well as drastically reducing the quantity of water available for beneficial uses. Despite this, the SED does not include any analysis of the potential impacts or benefits of this plan. Because the SED fails to include this analysis, the carryover storage requirements are not supported by substantial evidence and cannot be approved by the State Water Board as part of the program of implementation.

H. REQUIRING THE BYPASS OF 30-60 PERCENT OF UNIMPAIRED FLOW WITHOUT DOCUMENTED BENEFITS TO FISH AND WILDLIFE IS AN UNREASONABLE USE OF WATER

Article X, Section 2 of the California Constitution prohibits the “waste or unreasonable method of use or unreasonable method of diversion of water.” The State Water Board is required to “take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion in this state.” [Water Code § 275; 23 CCR § 764.] Besides preventing the unreasonable use of water, the State Water Board is prohibited from compelling the unreasonable use of water. [*State Water Board Cases*, at 762; *Baldwin v. County of Tehama* (1994) 31 Cal.App. 4th 166, 183.] Whether a use is “reasonable” is a question of fact to be determined by the facts and circumstances of each case. [*Joslin v. Marin Municipal Water Dist.* (1967) 67 Cal.2d 132, 139; *Environmental Defense Fund, Inc. v. East Bay Mun. Utility Dist.* (1980) 26 Cal.3d 183, 194; *Jordan v. City of Santa Barbara* (1996) 46 Cal.App.4th 1245, 1268.] To determine whether any particular use is “reasonable,” the Board must evaluate: (a) the

quantity of water needed for the beneficial use served (*City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1241); (b) a comparison of other potential uses (*Imperial Irrigation Dist. v. State Water Resources Control Bd.* (1990) 225 Cal.App.3d 548, 570-571); and (c) local environmental conditions [*Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist.* (1935) 3 Cal.2d 489, 567], among others.

As mentioned above, the SED does not even attempt to estimate or analyze the level of benefit the proposed Project will provide to viable fish populations. In addition, no scientific or other evidence supports the assumption that the proposed flow objectives alone will provide reasonable protection to fish. Conversely, even though the impacts to agriculture and other consumptive beneficial uses are drastically underestimated in the SED, the SED nevertheless demonstrates adverse impacts. When unsupported benefits to fish and wildlife are compared to documented adverse impacts to agriculture, it becomes clear that the contribution of the recommended 30-60% unimpaired flow to fish and wildlife is unreasonable. Without specifically documenting that the Plan will protect beneficial uses, and comparing those specific benefits against the documented injuries, the proposed Plan cannot be deemed a reasonable and beneficial use of water.

I. THE STATE WATER BOARD'S PLAN AND PROGRAM OF IMPLEMENTATION VIOLATE THE PUBLIC TRUST DOCTRINE

1. The Public Trust Doctrine Requires the State Water Board Ensure Water be Placed to Beneficial Use to the Fullest Extent

The overarching principle of the public trust doctrine is “the general welfare requires that the water resources of the state be put to beneficial use to the fullest extent to which they are capable, and that the waste or unreasonable use of water must be prevented.” [*Siskiyou* at 423-424, citing *People v. Weaver* (1983) 147 Cal.App.3d Supp. 23, 28-29.] Because the proposed Plan fails to adequately analyze and balance the reasonable and beneficial uses of water, the State Water Board has failed to fulfill its fundamental Public Trust duty. In particular, the State Water Board does not indicate how the dedication of a randomly selected percentage unimpaired flow to the benefit of fish and wildlife, to the documented detriment of other trust uses, is consistent with the purposes of the trust. Although the State Water Board attempts to protect an important state interest by providing flow to fish and wildlife, the State Water Board cannot determine the reasonableness of these flows *in vacuo*, isolated from other statewide interests, and without considering the effect of these unimpaired flows on all of the needs of those in the stream system. (*Siskiyou* at 424; *In re Waters of Long Valley Creek Stream System* (1979) 25 Cal.3d 339, 354 (*Long Valley*).)

Failing to adequately analyze the effect of the unimpaired flows on other important needs on the stream system is inconsistent with the State Water Board's duty under the Public Trust Doctrine. In addition, this failure lends additional support that the unimpaired flow objectives constitute an unreasonable use of water, because the Board fails to demonstrate that through the unimpaired flows that "limited water resources be put only to those beneficial uses 'to the fullest extent of which they are capable,' that 'waste or unreasonable use' be prevented, and that conservation be exercised 'in the interest of the people and for the public welfare.'" [Cal. Const. Art. X, § 2; *Long Valley* at 354; *Light v. State Water Resources Control Bd.* (2014) 226 Cal.App.4th 1463, 1479-1480.]

2. The State Water Board cannot rely on its authority under the Public Trust as support for its decision to impose the unimpaired flow criteria

Under the Public Trust doctrine, the State Water Board may curtail water rights in certain narrow circumstances. [*State Water Board Cases*, 149-150; 23 CCR, § 780(a).] However, this authority does not justify curtailing water rights to implement the Lower San Joaquin River Flow Objectives for several reasons. First, the State Water Board may only utilize the Public Trust Doctrine to curtail vested water rights when it "is necessary" to protect the public trust interest. [23 CCR, § 780(a).] This is a stringent standard, more stringent than what is required for the State Water Board to set water quality objectives; that standard requires the State Water Board "establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection" of the beneficial use. [Water Code § 13241.] Even assuming, *arguendo*, that the State Water Board's analysis for the establishment of the flow objectives were sufficient, the State Water Board may not rely on that analysis to implement the flow objectives under its public trust authority. Instead, the State Water Board needs to notice and perform separate Public Trust proceedings to determine whether the objectives are necessary to protect the public trust:

The continuing authority of the board also may be exercised by imposing further limitations on the diversion and use of water by the permittee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Sec. 2; is consistent with the public interest and is necessary to preserve or restore the uses protected by the public trust. [23 CCR 780(a).]

Additionally, to curtail a vested appropriative right under the Public Trust Doctrine, the State Water Board must first affirmatively find based on substantial evidence, that the particular diversion is "harmful to the interests protected by the public trust." [*State Water Board Cases* at 151.] Essentially, the State Water Board may not justify the exercise of its public

trust authority to curtail a particular vested appropriative right simply because fish and wildlife are specifically “harmed” by the particular diversion at issue. This severely limits the State Water Board’s ability to exercise its public trust authority to implement in the unimpaired flow objective.

Even if the State Water Board were able to demonstrate the flow necessary to protect public trust resources, the State Water Board must *also* find that the proposed curtailment of the targeted vested water right(s) is in the “public interest.” [*Id.*; Water Code § 1253; 23 CCR § 780(a).] The public interest consideration requires that the State Water Board “consider and protect all of the other beneficial uses. . . including municipal, industrial, and agricultural uses.” [*State Water Board Cases* at 778.] The great majority of the beneficial uses the flow objective supports are municipal and agricultural uses, which many people rely on for their livelihood and health and safety. The current SED fails to establish the level of protection, if any, the proposed Plan will provide to fish and wildlife. The established benefit of existing uses, combined with the undefined benefit of the proposed Project, reveals that it’s unlikely that an appropriate balancing of the public interest would result in the curtailment of these vested rights pursuant to the public trust.

In order to utilize the public trust to implement the LSJR Flow Objectives the State Water Board must weigh and balance the best available scientific information to determine that (1) the flow objectives are necessary to protect fish and wildlife; (2) the diversion of the water by vested water right holders is causing harm to the native fishery; and (3) the flow objectives promote the public interest. This severely truncated methodology lacks the necessary evidence and analysis to support reliance on public trust authority to legally justify this extreme decision.

J. THE PLAN FAILS TO ADEQUATELY CONSIDER AND ESTABLISH WATER QUALITY OBJECTIVES THAT CAN REASONABLY BY ACHIEVED THROUGH THE COORDINATED CONTROL OF ALL FACTORS

1. Requiring the Bypass of 30-60 Percent of Unimpaired Flow Without Implementing Other Physical Solutions is an Unreasonable Use of Water

When it adopted the 2010 Flow Criteria Report, the State Water Board acknowledged the need for an integrated approach to management of the Delta:

Best available science supports that it is important to directly address the negative effects of other stressors, including habitat, water quality, and invasive species, that contribute to higher demands for water to protect public trust resources. The flow criteria highlight the continued need. . . to develop an

integrated set of solutions and to implement non flow measures to protect public trust resources.

Yet the SED fails to adequately address other local environmental conditions that limit the survival of fish, and thus cannot support unimpaired flow as a reasonable use of water. Predation is one example of the local environmental conditions that pose a significant threat to the survival of native anadromous fish. Other examples include fish mortality caused by dewatering, lack of velocity, impaired water quality, or local hatchery practices. Requiring increased flow without addressing these other factors impacting fish populations is a legal flaw in the SED and proposed flow objectives. The SED's failure to properly account for and evaluate these other local environmental conditions demonstrates that the proposed flow objectives are an unreasonable use of water.

Predation is probably the biggest barriers to increasing fish populations. The National Marine Fisheries Service's 2009 Draft Recovery Plan for salmon and steelhead found predation to be one of the most important stressors. A 2014 study by Department of Water Resources found that "predation plays a large role in the survival rates of out-migrating salmon." This Board has identified non-native species as one of the water quality impairments in the Bay-Delta. Water quality laws require that before flow is used, this Board must control all factors that can reasonably be controlled through non-flow measures.

The facts on predation is simply illustrated by the following:

- Research on the Tuolumne River shows 95% to 98% of salmon and steelhead – which are protected under the federal Endangered Species Act – are lost to predation before they even leave that river (attempts to collect similar data on the Stanislaus River have been blocked by government red tape).
- There are 300 bass per kilometer in the San Joaquin River – this is not hot spots, this is the entire river.
- It is estimated that 800,000 to 1.5 million adult striped bass live in the Delta, with a total (all age groups) predator population of 6 million to 8 million.
- In Clifton Court Forebay we have from 80 to 100% loss to predation with no fix being planned.

Until predation is addressed, native salmon and steelhead populations may never increase in the river, no matter how much water is released.

The recent actions with hatchery fish in the San Joaquin River watershed raises more issues with the unimpaired flow proposal – and provides a perfect illustration of the reasons that flow will not provide the result sought by the Plan. The Stanislaus River has already met the doubling goal for salmon:

- *Spawning adult salmon in the Stanislaus have increased by a factor of five since 2007.*
- *Numbers in 2015 were the 12th highest since 1950.*

However, flow is not responsible for this success. Study of the fish returning to the Stanislaus River show that they are all hatchery fish. In 2013 California Fish and Wildlife increased hatchery production on the Merced River to 1.5 million fish. These fish are spawned and reared in the hatchery, but they are not then released into the Merced River; rather, they are trucked to the Bay and released. As a result, these fish do not face the gauntlet of predation that is described above resulting in 98-100% predation rates. Rather, they are escorted past the predators, and released into the ocean where they must face only an ocean harvest of 60%. Therefore, up to 40% of these hatchery fish are returning to the tributaries to spawn. Under Department of Fish and Wildlife regulations, when these hatchery fish spawn in the Stanislaus River, they are no longer hatchery fish, but are considered natural.

Despite reports to the contrary, because of this combination of predation and increased hatchery production, there is no natural production of Central Valley Fall-Run Chinook Salmon on the tributaries; they have been overrun by hatchery practices.

The non-flow issues currently drive fish populations in the tributaries – not flow. Yet again, the SED focuses strictly on flow – which is irresponsible, and an unreasonable use of water under the circumstances.

Again, even the 2010 Flow Criteria Report relied on by the SED acknowledged that issues other than flow must be considered, stating: “it is highly unlikely that any fixed or predetermined prescription will be a ‘silver bullet’. The performance of native and desirable fish populations in the Delta requires much more than fresh water flows.” They also need “habitat having a particular range of physical characteristics, appropriate variability, adequate food supply and a diminished set of invasive species.”

While folks ask “How much water do fish need?” they might well also ask, “How much habitat of different types and locations, suitable water quality, improved food supply and fewer invasive species that is maintained by better governance institutions, competent implementation and directed research do fish need?” The answers to these questions are interdependent.

The Recirculated Draft SED indicates that “non-flow measures can also be important, but State Water Board has limited authority to require non-flow measures.” This is simply not the case.

The State Water Board has consistently acknowledged that flow alone is insufficient to meet the beneficial uses for fish and wildlife.

Successful implementation of nonflow measures may support adaptive adjustments to the required flow within the adaptive range of 30 to 50 percent of unimpaired flow, as long as the criteria for such adjustments are met. *Summary of Proposed Updates to the Bay-Delta Water Quality Control Plan* (September 15, 2016).

. . . a key element of successful adaptive management is the implementation of non-flow measures that could reduce the flows needed, within the adaptive range, to achieve reasonable fish and wildlife protection goals, such as restoration of gravel spawning beds, suppression of habitat beneficial to predatory fish, and enhancement of habitat beneficial to native species”. *Summary of Proposed Updates to the Bay-Delta Water Quality Control Plan* (September 15, 2016).

The State Water Board recognizes the importance of habitat restoration and direct control of other stressors, and that non-flow actions could reduce the flows needed to achieve reasonable fish and wildlife protection goals. These factors also interact with flow; therefore some level of increased flows will be needed even with non-flow actions, but non-flow actions can also mitigate the need for increased flows. *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 Oct. 19, 2016*

While flow is one of the primary factors affecting fish and wildlife, the Report also describes other stressors, such as pollutants, predation by non-native species, and habitat alteration, and how stressors interact in the ecosystem. Non-flow measures will be addressed in the Bay-Delta Plan program of implementation, including actions the State Water Board may take related to those issues. *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 Oct. 19, 2016 FN 2*

Despite these acknowledgements, the SED neither includes nor implements identified non-flow actions beneficial fishery and reduce the need for flow in the SED. The State Water Board's failure to analyze impacts to and solutions to address water quality issues through non-flow measures is unreasonable, and the Plan's reliance on flows exclusively when the State Water Board acknowledges that adoption of non-flow factors would require less water violates Article X Section 2 of the California Constitution and the Public Trust.

2. The Plan's exclusive reliance on unimpaired flows to address fish and wildlife beneficial uses violates Water Code Section 13241

When establishing its Plan, the State Water Board must "ensure the reasonable protection of beneficial uses" and in doing so must consider "[w]ater quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area." Clearly in order to remain consistent with the State's emphasis on the reasonable use of water, controlling water quality conditions through the coordinated control of all factors" that affect water quality rather than relying exclusively on flow measures is required. The State Water Board's failure to do so violates Water Code Section 13241.

3. The Plan relies exclusively on dilution flows to decrease salinity in the Delta, and fails to address any other factors affecting salinity in the south Delta violates Water Code Section 13241

Article X, Section 2 of the California Constitution requires water resources of the State be put to beneficial use to the fullest extent of which they are capable. The State Water Board's actions are limited and controlled by this constitutional requirement. In addition, Water Code Section 275 directs the State Water Board to take appropriate action to prevent the unreasonable use of water. The State Water Board's responsibility and authority to take appropriate action to prevent water was upheld in *State of California v. Forni* (1976) 54 Cal.App.3d 743. The State Water Board disregards this responsibility in the Plan, instead asserting that it is appropriate and acceptable to release water to dilute pollution rather than addressing pollution through non-flow measures. This approach is neither acceptable nor legal when there are other implementable controllable factors available to the State Water Board to address the salinity water quality issues within the Southern Delta. The State Water Board has already concluded that controllable factors could and should be used to control the problem of salinity. [State Water Board D1641.]

California courts and the State Water Board both recognized that when the causes of pollution can be controlled, the continued use of water to dilute that pollution is an unreasonable method of attaining a water quality standard. For example, in *Antioch v. Williams Irrigation District* (1922) 188 Cal. 451, 465 the court found that it was unreasonable to require

upstream diverters to cease water use in order to maintain downstream water quality. In *Jordan v. City of Santa Barbara* (1996) 46 Cal.App.4th 1245, 1269, the court clearly stated that “[u]se of upstream water to wash out salts downstream is an unreasonable use of water.” [*Id.* at 1270.] Yet for decades the State Water Board has failed to control the sources of pollution into the San Joaquin River, choosing instead to condition water right permits to require bypass flows and releases from storage to dilute pollution in the SJR and south Delta.

In Decision 1628, adopted in 1992, the State Water Board indicates the appropriate standard at page 16:

The use of water to dilute pollutants other than ocean derived salts may be unreasonable. The Board prefers to control pollution at its source. The Board’s regulations provide that the quantity of water diverted under a permit or license is subject to modification if necessary to meet water quality objectives, but the regulations also provide that the Board will not modify a permit or license if water quality objectives can be achieved through the control of waste discharges.” [23 Cal. Code Regs. § 780(b).]

The Plan directly violates the Board’s own regulations – Section 780(b) of Title 23 California Code of Regulations, describes standard permit terms that may be included in water right permits. For water quality objectives the Board has adopted a term that allows it to modify permits in the future subject to the following restriction:

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 water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.”

There are multiple non-flow factors available to meet the salinity objective, including source control, real time management, or implementation of the preferred method – regional management. But rather than implement any of these alternatives, the State Water Board’s proposed Program of Implementation would continue to require the release of water for dilution. To the extent that the Plan relies heavily on flow measures for implementing the salinity objectives, rather than initially utilizing non-flow measures, the State Water Board is in violation of state law and State Water Board regulations.

4. The State Water Board's Assertion That It Has No Authority to Require Non-Flow Factors Is Absurd

The law clearly requires the State Water Board to consider control of all factors, including non-flow actions, when protecting beneficial uses. [Water Code Section 13241.] In fact, the constitution and the public trust would require that non-flow factors be looked to first in order to protect flows, and ensure that water is being placed to its highest and best use.

The State Water Board itself recommends, but does not require, non-flow actions be undertaken by regulated parties as part of the implementation plan:

While flow remains a key factor, the State Water Board also recognizes that a number of other factors, such as nonnative species, predation, high water temperatures, barriers to fish passage, and habitat loss contribute to the degradation of fish and wildlife beneficial uses in the LSJR. Direct actions to address these other stressors would complement LSJR flows to protect fish and wildlife. The State Water Board, therefore, recommends certain actions in the program of implementation. These recommended actions, together with the coordinated monitoring and adaptive implementation described above, are expected to improve habitat conditions that benefit native fish and wildlife or are expected to improve related science and management within the LSJR Watershed, and could reduce the flows needed, within the adaptive range, to achieve reasonable fish and wildlife protection goals. [SED pg. ES-19.]

The State Water Board does not explain why essential non-flow measures are not imposed as part of the program of implementation, to be implemented as conditions to water right permits. In oral statements, not included in the SED, State Water Board members have stated that it does not have the legal authority to impose non-flow conditions – nothing could be further from the truth. The instances of the State Water Board imposition non-flow requirements as conditions on water right permits are too numerous to mention; the State Water Board has required permit holders to perform fishery studies (D1616), groundwater studies (D869), studies for mitigation of streamflow reductions and sediment buildup (D1582), to consult with other regulatory agencies to develop plans to reduce fish losses resulting from diversion of water, and to identify proposed sources of funding to implement projects (D1644), to fund a study to be performed by the Department of Fish and Game of the steelhead resource potential and flow requirements necessary for the transport of adult and juvenile steelhead to and from spawning and rearing areas to gather data and make recommendations as to feasible alternatives for the improvement and perpetuation of a steelhead resource that may reasonably be undertaken using water appropriated pursuant to a permit (D1586), to conduct a study to determine the permitted project's impacts on fishery habitat and fish populations.

(D1609), to install physical barriers in the river (D1641) to study recirculation, and hundreds of other examples. In addition, to demonstrate that the State Water Board itself believes it has authority to impose non-flow conditions on water right permits, one need look no further than the carryover storage requirements its Program of Implementation proposes to impose on all SJR water right holders.

5. The State Water Board's Failure to Require Non-Flow Measures in the Plan

When establishing its Plan, the State Water Board must “ensure the reasonable protection of beneficial uses” and in doing so must consider “[w]ater quality conditions that could reasonably be achieved through the **coordinated control of all factors which affect water quality** in the area”. [Emphasis added] The State Water Board fails to do so. Yet, California law prohibits the State Water Board from adopting a plan requiring more flow be released from reservoirs on the SJR than is required for the beneficial use to be served: “[t]he right to water or to the use or flow of water in or from any natural stream or watercourse in this State is and **shall be limited to such water as shall be reasonably required for the beneficial use to be served**. . .” [Water Code Section 100 (Bolding and underlining added).] The State Water Board acknowledges that implementing non-flow measures would reduce the amount of flow needed to meet the beneficial uses; therefore, California law requires those actions be required as part of the Plan.

K. THE STATE WATER BOARD'S PROGRAM OF IMPLEMENTATION VIOLATES CALIFORNIA LAW

1. The State Water Board's assertion in the Program of Implementation to leave the 0.7 dS/m salinity objective as a permit condition for the USBR's permits is also not legally supported

The SED adjusts the South Delta Salinity Objectives from 0.7 dS/m to 1.0 dS/m in recognition of new scientific information regarding the water quality necessary to protect agricultural interests. Despite this conclusion that 1.0 dS/m is the salinity objective required to protect beneficial uses, the Program of Implementation proposes to continue to impose a 0.7 dS/m permit condition on upstream water right permits, including those for New Melones. Imposing this permit condition is contrary to the evidence and state law requirements.

a. Authority to Impose Permit Conditions. The law requires a nexus between a condition imposed on a water right permit and the harm sought to be remedied. (*Bank of America v. State Water Resources Control Bd.* (1974) 42 Cal.App.3d 198, 213.) There is no nexus between imposing a condition on water rights requiring them to reach a 0.7 dS/m

standard and an adopted water quality beneficial use of 1.0 dS/m. Such conditions cannot be not supported by substantial evidence. Despite noting that such permit conditions would adversely impact New Melones project water supply contractors and agriculture, and contrary to substantial evidence, the State Water Board intends to keep the permit conditions at 0.7 dS/m and use dilution to require compliance in the southern Delta.

The substantial evidence standard must support imposition of water right conditions proposed by the State Water Board with precise and specific reasons founded on tangible record evidence. (*Bank of America v. State Water Resources Control Bd.* (1974) 42 Cal.App.3d 198, 213.) To accomplish this, the State Water Board must be able to point to evidence in the record that connects New Melones operations to the need for the 0.7 dS/m flow conditions. The lack of discussion in the Program of Implementation demonstrates that the State Water Board has not and cannot provide an adequate nexus between the 0.7 dS/m permit condition and meeting the 1.0 dS/m water quality objective. The SED does not disclose and address substantial evidence in support of the salinity objective in the New Melones permits. The substantial evidence test requires the State Water Board to disclose “substantial evidence” to support its decision and supply “precise and specific reasons founded on tangible record evidence” to support its conditions. [*Bank of America v. State Water Resources Control Board* (1974) 42 Cal.App.3d. 198, 213.] Here, there is no substantial evidence to support imposing the salinity objective on the New Melones permits. For this reason, the State Water Board’s Program of Implementation fails to meet the legal threshold established in both *Bank of America* and *Racanelli* requiring the State Water Board to support permit conditions with tangible record evidence.

b. Program of Implementation Must be Consistent with Water Quality Objectives. The State Water Board proposes to change the water quality objective for southern Delta salinity in its Plan Amendments, but failing recognize the same change in its Program of Implementation. Requiring a more stringent program of implementation than water quality requirements deemed sufficient to protect beneficial uses clearly violates Article X Section 2 of California’s Constitution. Permit conditions that are more stringent (0.7 dS/m) than the water quality objectives themselves (1.0 dS/m) require more water to be released than is actually necessary for reasonable and beneficial uses. Again, California law requires that water use **shall be limited to such water as shall be reasonably required for the beneficial use to be served.** [Water Code Section 100.]

2. The Program of Implementation Violates Water Code Section 13242

Water Code Section 13242(a) provides that a program of implementation for achieving water quality objectives shall include “a description of the nature of **actions which are necessary to achieve the objectives**, including recommendation for appropriate action by any

entity, public or private.” [Emphasis added.] The Program of Implementation relies solely on flow to meet the salinity objective. However, the Program of Implementation fails to demonstrate how the flow measures and reliance on project water is necessary under Water Code Section 13242. Because the State Water Board is required by law to first implement non-flow measures to reach water quality objectives (23 CCR § 780(b)) by definition the use of flow from New Melones is not necessary. The Recirculated Draft SED’s failure to analyze and demonstrate how the use of flow is necessary under Water Code Section 13242, and without adequately analyzing non-flow measures, renders the SED legally deficient.

In addition, the imposition of a more stringent standard on the New Melones Permit (0.7 dS/m) than is identified to meet the beneficial use (1.0 dS/m) is not “**necessary to achieve the objectives,**” and cannot be upheld under Water Code Section 13242(a).

L. THE STATE WATER BOARD’S PROPOSED PLAN WOULD UNDERMINE THE PURPOSES OF THE NEW MELONES PROJECT AND WORK DIRECTLY AGAINST THE ACHIEVEMENT OF SEVERAL OF THE PROJECT’S GOALS

Any state limitation or condition on the federal management or control of a federally financed water project is valid unless it clashes with express or clearly implied congressional intent or works at cross-purposes with an important federal interest served by the congressional scheme. In *United States v. State of California* (1986) 694 F.2d 1171, the Ninth Circuit noted potential conflict between the State Water Board and New Melones project operations:

“California may have a legitimate interest in many aspects of the project’s operation. On the other hand, these five conditions could be exercised inconsistently with congressional intent. The New Melones project is intended to be operated by federal officials in pursuance of certain declared goals. California cannot impose burdensome conditions which were not contemplated by Congress, or which work against the achievement of the project’s goals. For example, once the federal government has made binding contracts for delivery of water, California would be more restricted than it was when it originally regulated impoundment and distribution of water. [694 F.2d at 1191.]

Here, the Plan Amendment’s unimpaired flow criteria analyzed in the Recirculated Draft SED together with its draconian carryover storage requirements, clash with clear congressional intent and work against an important federal interest because it contradicts and ignores the established purposes of the New Melones Project, which was built to serve a multitude of beneficial uses. Congress authorized the New Melones project for many purposes, including

the provision of 180,000 acre-feet of water for irrigation and municipal and industrial uses. While Congressional authorization for the project also included water quality and fish and wildlife, Congressional purposes would be contradicted if the State Water Board's Plan was implemented and fish and wildlife purposes became the only beneficiary of the project. Simply stated, an unelected State Water Board cannot convert Congressional action and intentions that New Melones serve multiple water purposes into a single water purpose: a fish and wildlife purpose.

Moreover, under the Plan Amendments, the Stanislaus River will be contributing 100,000 acre feet more than the other tributaries and is unfairly and disproportionately impacted. The Stanislaus River is already subject to reasonable and prudent alternatives imposed on the operations of New Melones Reservoir by the Salmon and Steelhead Biological Opinion (Salmon BiOp) imposed under the Endangered Species Act. This Salmon BiOp, imposed in 2009, requires significant increased flows in the river for the same species being protected by this plan. This operational criteria is already meeting the 30-50% flow criteria, and be sufficient for the Stanislaus River's compliance with the plan. However, instead the State Water Board chooses to further burden the river. The proposed plan imposes upon the Stanislaus River the requirements of the 40% unimpaired flow proposal OR the requirements of the Salmon BiOp, **whichever is higher**. As a result, although the percentage of unimpaired flow for the three tributaries is relatively equal, the Stanislaus River will be contributing over 100,000 acre feet more than the other two tributaries. This too frustrates the New Melones project purposes and violates California law.

II. THE RECIRCULATED DRAFT SED IS LEGALLY DEFICIENT FOR PURPOSES OF COMPLYING WITH THE REQUIREMENTS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. INTRODUCTION

The District is vitally interested in the State Water Board discharging its public duty to satisfy the requirements of the California Environmental Quality Act ("CEQA"). Generally speaking, the Recirculated Draft SED is legally deficient and does not fulfill its duty as an informational document. The failure of a CEQA document to fulfill its informational duty is prejudicial to the decision makers and public. Rather than certify the Recirculated Draft SED, we request, yet again, that the State Water Board produce a sufficient evaluation of the potential environmental effects and thereafter provide a new public review draft SED and comment period. In this instance, the proposed Project directly affects the District by reducing the amount of surface water available from the Stanislaus River thereby affecting District operations, District landowners, and the Urban Contractors that rely on the provision of wholesale treated surface water, all of whom will be directly and negatively affected by the

project's negative environmental consequences. The proposed Project also has direct and secondary effects on the general public.

The Legislature declares that environmental quality is a statewide concern and requires public agencies to exercise regulatory authority "so that major consideration is given to preventing environmental damage." Pub.Res.C. §21000(g); Title 14 California Code of Regulation §15002(a)(2)-(3) (underline added) (hereinafter unidentified reference refer to the CEQA Guidelines).¹ Ignoring direct and cumulative impacts defeats an overriding policy as articulated by the Supreme Court that CEQA is "to be interpreted...to afford the fullest possible protection to the environment within the reasonable scope of the statute language." *Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259 (underscoring added). "The EIR requirement is the heart of CEQA." CEQA Guideline §15003(a). A legally adequate SED demonstrates "to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its actions" (CEQA Guideline §15003(d)); and "enable[s] the public to determine the environmental and economic values of their elected and appointed officials thus allowing for appropriate action come election day." *People v. County of Kern* (1976) 39 Cal.App.3d 830, 842. The Supreme Court succinctly observes, "The EIR process protects not only the environment but also informed self government." [*Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 392 ("Laurel Heights").]

If a SED is adopted without sufficiently discussing and mitigating environmental effects, the agency has not proceeded in a manner required by law. *TRIP v. City Council* (1988) 200 Cal.App.3d 671, 679. The Fifth District underscores the EIR's information disclosure feature: "A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process." [*Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 26 ("Dry Creek"); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 712 ("Kings County").]

Thus, an "adequate EIR must be 'prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences.' (Citation) It 'must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.'" *Kings County* at 712 (emphasis added) citing *Laurel Heights* at 405. See, also *Dry Creek* at 26. Omitting relevant information itself "is

¹We acknowledge the citations presented herein involve challenges to EIRs rather than to a SED. Nevertheless, substantial overlapping legal requirements applicable to each type of document make these important citations directly applicable here. Throughout this comment letter we rely on statutory, administrative guidelines and decisional law statements that apply with equal dignity to the legal sufficiency of either an EIR or a SED. Hence, the term "EIR" and the term "SED" may be used interchangeably in this comment.

prejudicial if the failure to include relevant information precludes informed decision making and informed public participation.” [*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722.”.]

A SED’s legal sufficiency is determined by Code of Civil Procedure (C.C.P.) §1094.5 and Pub.Res.C. §21168. An abuse of discretion occurs if an agency does not proceed in a manner required by law or if the decision is not supported by substantial evidence. “Failure to provide enough information to permit informed decision making is fatal.” *Napa Citizens for Honest Government v. Napa County* (2001) 91 Cal.App.4th 342, 361. To put a finer point on it, certifying “an EIR which is legally deficient because it fails to adequately address an issue constitutes a prejudicial abuse of discretion regardless of whether compliance would have resulted in a different outcome.” [*Citizens to Preserve Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 428.]

The applicable two prong standard presented by C.C.P § 1094.5 compels a trial court to take a hard and demanding evaluation of the evidence and the agency’s treatment of this evidence. In sum, a reviewing court ascertains whether a challenged EIR or SED was prepared “with a sufficient degree of analysis” to allow “a decision which intelligently takes account of environmental consequences.” [*Dry Creek* at 26.] This means the SED “must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.” [*Laurel Heights* at 405.] Therefore, “where the failure to comply with the law results in a subversion of the purpose of CEQA by omitting information from the environmental review process, the error is prejudicial.” [*Rural Landowners v. City Council* (1983) 143 Cal.App.3d 1013, 1023.]

The District’s comments pivot on the principle that a SED acts as an informational document identifying potentially significant impacts of a project, as well as alternatives and mitigation measures necessary for informed decision-making (Pub.Res.C. §21002.1), and that substantial evidence must support the SED’s findings and conclusions. *Laurel Heights* 47 Cal.3d 376. An adequate SED “must be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences” and “must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.” [*Id.*] The Recirculated Draft SED does not meet this threshold; accordingly, it is not adequate for certification, and the Plan Amendments cannot be approved until a legally sufficient SED is prepared.

Moreover, a public agency must proceed in a manner required by law and failing to proceed in a manner required by law represents an independent and separate prong of abusing discretion as identified in C.C.P. § 1094.5. Omitting relevant data or the failing to conduct

environmental studies or analysis based on a legally sufficient project description or baseline amounts to a failure to proceed in a manner required by law. [*Rural Landowners v. City Council* (1983) 143 Cal.App.3d 1013, 1023.]

This is because CEQA is to be expansively interpreted in order to provide maximum evaluation and consideration of potential direct and indirect environmental effects. CEQA Guideline §15003(f); *Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259. Cohering to this expansive statutory mandate the “EIR requirement is the heart of CEQA.” [CEQA Guideline §15003(a); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795.]

More specifically, a SED must consider both direct and indirect environmental effects (CEQA Guideline §15064(e)). The expansive interpretation of this rule was presented in *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1205-1206 and illustrates the meaningful relationship between socio-economic direct effects to secondary or indirect environmental effects:

Guidelines Section 15131, subdivision (a) provides, “An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes in turn caused by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.”

Case law already has established that in appropriate circumstances CEQA requires urban decay or deterioration to be considered as an indirect environmental effect of a proposed project. The relevant line of authority begins with *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 217 Cal.Rptr. 893 (*Bishop*). There, the appellate court held that adoption of multiple negative declarations for different aspects of the same large regional shopping center violated CEQA. [*Id.* at p. 167, 217 Cal.Rptr. 893.] The court also agreed with appellant that on remand “the lead agency must consider whether the proposed shopping center will take business away from the downtown shopping area and thereby cause business closures and eventual physical deterioration of downtown Bishop.” [*Id.* at p. 169, 217 Cal.Rptr. 893.] Citing CEQA Guideline Section 15064, the court found that the lead agency had an affirmative duty to consider whether the new shopping center would start an economic chain reaction that would lead to physical deterioration of the downtown area. [*Id.* at p. 170, 217 Cal.Rptr. 893.] Therefore, “[o]n remand the lead agency should consider physical deterioration of the

downtown area to the extent that potential is demonstrated to be an indirect environmental effect of the proposed shopping center.” [*Id.* at p. 171, 217 Cal.Rptr. 893.]

Accordingly, in *Bakersfield Citizens* the socio-economic impact of store closures required the two EIRs to study in depth the potential that this non-environmental effect could start a “chain of events” leading to urban decay, a recognized environmental effect. To the same extent, this Recirculated Draft SED fails to identify and omits significant secondary effects of the proposal. For instance, as explained later, the proposed Project will induce agricultural operations to rely more heavily on groundwater as a substitute for reduced surface water deliveries. This in turn means that more air pollution will be emitted as agricultural operations increasingly use diesel engines to pump groundwater for application to crops. Against the *Bakersfield Citizens* standard of legal sufficiency the Recirculated Draft SED is legally deficient and approval of the SED as currently presented amounts to a prejudicial abuse of discretion.

B. THE RECIRCULATED DRAFT SED’S PROJECT ENVIRONMENTAL SETTING AND BASELINE IS LEGALLY DEFICIENT

Evaluating a project’s potential to cause individual and/or cumulative impacts requires identifying an accurate environmental setting/baseline. See CEQA Guideline §15130(b) (1). Indeed, “[t]he purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind. (*Bozung v. LAFCO* (1975) 172 Cal.App.3d 151)” (CEQA Guideline §15003(g)), and an analysis relying on a factually inaccurate environmental setting/baseline reflects an exercise in paper pushing rather than good-faith information disclosure. Accordingly, incorrectly including certain features or omitting relevant features of the baseline or environmental setting is inherently prejudicial, for a “[p]roper cumulative impacts analysis is absolutely critical to meaningful environmental review.” [*Bakersfield* at 1217.]

The environmental setting and baseline consists of “the physical environmental conditions in the vicinity of the project” viewed from “local and regional perspective(s).” [CEQA Guideline §15125(a) and (c).] It should be sufficiently comprehensive to allow a project’s significant impacts “to be considered in the full environmental context.” [CEQA Guideline §15125(c).] It should be sufficiently clear and accurate to allow informed comparisons of the pre-project and post-project conditions. [*County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 955.] A SED’s assessment of a project’s environmental impacts examines changes to existing physical conditions expected to result from the project. [CEQA Guideline §15126.2(a).] A SED must focus on the project’s impacts to the environment, not its impacts on hypothetical situations. [*County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App. 4th 931, 952.]

Here the Recirculated Draft SED's baseline is legally deficient thereby rendering the SED inadequate as a document required to comply with CEQA. The SED contains multiple baseline deficiencies. First and foremost, the baseline assumes implementation of the San Joaquin River Agreement (SJRA) and the Vernalis Adaptive Management Plan (VAMP) flows. The SJRA and VAMP expired in 2011 and those flows are not present in the system. Including the VAMP flow overestimates the amount of water at Vernalis and hence underestimates the amount required from New Melones Reservoir to meet the amount of water necessary to meet the February through June objectives. The baseline assumptions include the June 2009 National Marine Fisheries Service's Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project (NMFS BiOp) Reasonable and Prudent Alternative 3.1.3 (June 2009 BiOp Appendix 2-E flow schedule). It is unclear why the baseline conditions include the flows set forth in June 2009 BiOp Appendix 2E flow schedule for the Stanislaus River. First, the Recirculated Draft SED states that CEQA requires a description of the physical environmental conditions in the vicinity of the project as they exist at the time of the Notice of Preparation (NOP) is published (February 3, 2009) [SED pg. 1-6.] As such, why are the June 2009 BiOp Appendix 2-E flows included since they were not in existence as of February 2009, instead they were issued four (4) months following the issuance of the NOP. Moreover, the United States Bureau of Reclamation (Reclamation) has reinitiated formal consultation with NMFS on the BiOp and the continued viability of the Appendix 2E flows will be examined as part of the re-consultation.

Further deficiencies in the baseline in the Recirculated Draft SED omission of flows from the San Joaquin River Restoration Program (SJRRP). The SJRRP is the result of a settlement reached in 2006. The settlement addresses restoration of fish habitat and requires flows be provided to re-connect the river upstream of the Friant to Dam to the Upper San Joaquin River at the mouth of the Merced River. The flows provided for pursuant to the settlement agreement existed at the time of NOP and exist today; therefore, they ought to have been included in the environmental setting and the baseline.

Finally, the baseline improperly assumes Reclamation making ALL the releases to meet the existing February through June flow objectives from New Melones Reservoir assigned to Reclamation as part of D1641. These releases are not being made from New Melones nor will they be made from New Melones in the future. Reclamation has informed the State Water Board that it "has neither the legal authority nor the legal obligation to implement" the D1641 February through June Flow Objectives. Reclamation further asserts that they do "not believe that the Board's post-San Joaquin River Agreement (SJRA) interpretation is of D-1641 is supported by sufficient procedural or substantive due process, and raises serious concerns for viable, sustainable operations of New Melones, and therefore, could also conflict with clear Congressional directives for the CVP." [February 15, 2017 Letter from Reclamation to Tom

Howard, Executive Director, regarding Proposal for Meeting San Joaquin River Flow Objectives in Future Years.] As such, it is improper to include them in the baseline.

Moreover, inclusion of them in the baseline skews the entire environmental analysis on the Stanislaus River by underestimating the true impact of requiring the 30-60% unimpaired flow. As such, the water supply impacts and the corresponding agricultural resources, groundwater resources, municipal supply analysis is grossly understated. For the reason alone, it is difficult to comment on the Recirculated Draft SED environmental analysis because the baseline is so fundamentally flawed.

Including features not reasonably part of the environmental setting/baseline while unreasonably excluding features of the existing environmental setting/baseline is incoherent in the extreme. These materially defective errors results in the Recirculated SED inaccurately analyzing significant impacts from implementing alternatives and grossly underestimate impacts to water diversions. The understated environmental effect also results in inadequate analysis and a failure to consider mitigation measures to minimize this more significant environmental effect.

A project's environmental effects must be measured against actual physical conditions on the ground as opposed to hypothetical uses. *City of Carmel-by-the-Sea v. Board of Supervisors* (1986) 183 Cal.App.3d 180, 186-187. "[T]he environmental baseline is the basis on which the environmental impacts of the project are to be measured normally is the physical condition of the project site at the time the notice of preparation of the EIR is published." *Woodward Park Homeowners Assoc., Inc. v. City of Fresno*, (2007) 150 Cal.App.4th 683 (citing to CEQA Guideline §15125(a)). There the court determined an EIR for a shopping center that used operation of an authorized but non-existent office building as its baseline was "legally inadequate as an informational document because it failed to analyze consistently and coherently the impacts of the project relative to leaving the land in its existing physical condition." [*Id.* at 710.] The court ultimately held the EIR was deficient because it "failed to use the existing physical environment as the environmental baseline" and inappropriately compared the project's environmental effects to a hypothetical project and not the existing conditions on the ground. [*Id.* at 711.]

The wobbly baseline employed by the Recirculated Draft SED does not meet minimum legal requirements. Without explanation it omits relevant aspects of the existing physical environment while contemporaneously adding other features that were not part of this existing physical environment. This converts the environmental setting and baseline from accurately depicting the existing setting to offering a hypothetical environmental setting where some current features were omitted and potential features were included. These serious errors

produce an inaccurate baseline that contaminates the Recirculated Draft SED's study of environmental effects.

The State Water Board's assertion that the SED's Notice of Preparation sets the baseline is not dispositive and particularly unavailable in this instance since it operates to understate the intensity of significant environmental effects and otherwise distorts the analysis of the Project's impact to the environment. While the Guidelines suggest the NOP date "normally" establishes the baseline date the Supreme Court notes that public agencies have a duty to exercise discretion to determine appropriate "existing conditions" baselines. *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439,453. In short the word "normally" in CEQA Guideline Section 15125(a) "necessarily contemplates that physical conditions *at other points in time* may constitute the appropriate baseline or environmental setting." *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 336 (italics in original). Here reliance on an antiquated baseline date, rather than a baseline corresponding to the new SED, substantially distorts the quality and accuracy of the environmental analysis rendering the SED noncompliant with CEQA.

C. THE SED LACKS AN ADEQUATE PROJECT DESCRIPTION

A Project Description is a mandatory element of a legally sufficient SED. CEQA Guideline §15124. At a minimum the SED's Project Description must include four elements: 1) "The precise location and boundaries of the proposed project"; 2) "A statement of the objectives sought by the proposed project"; 3) "A general description of the project's technical, economic and environmental characteristics"; 4) "A statement briefly describing the intended uses of the EIR." [CEQA Guideline §15124(a) through (d).]

The SED's Project Description plainly does not meet minimum legal requirements and this deficiency is fatal. This is because a "finite project description is indispensable to an informative, legally adequate EIR." [*County of Inyo v. City of Los Angeles* (1977) 71 Cal.3d 185,199.] Thus a project description omitting integral components of the project may result in a SED that fails to disclose all relevant impacts of the project. [*Santiago County Water District v. County of Orange* (1994) 118 Cal.App.3d 818, 829.] Simply stated, "an accurate project description is necessary for an intelligent evaluation of the potential environmental effects of the proposed activity." [*San Joaquin Raptors/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730.]

The Supreme Court has concluded that if the description is inadequate because it fails to discuss the complete project, the environmental analysis will probably reflect the same mistake. [*Laurel Heights Improvement Association v. Regents* (1988) 47 Cal 3d 376.] There is a general mention of the consideration of amendments to the 2006 Bay-Delta Plan to change

flow requirements in the San Joaquin River basin and changes to water quality objectives in the Southern Delta, but nowhere in the body of the Recirculated Draft SED is there a clear concise description which sets forth the objectives of the proposed Project and measurable benefits that will be achieved by implementation of the proposed Project.

Secondly, the project description excludes from the Plan area the Upper San Joaquin River above Merced River. The State Water Board cannot legally exclude the main stem of the San Joaquin River above the Merced River from meeting the San Joaquin River flow objectives as this area contributes nearly 30% of the unimpaired flow of the entire San Joaquin River basin. If one of the stated purposes of the proposed Project is to mimic the natural hydrograph, how can this purpose be accomplished when nearly 30% of the natural flow is excluded?

Appendix K of the Recirculated Draft SED contains the program of implementation which fails to set forth in sufficient detail the suite of actions that will be undertaken to implement the proposed project. Instead, there are many references to actions to be developed by federal and state agencies with participation by stakeholders and delegation of actions to the Executive Director of the State Water Board. The SED fails to describe the proposed Project, improperly excludes mandatory areas and fails to describe the program of implementation in sufficient detail to conduct a legally adequate evaluation of the environmental impacts associated with the proposed project including the program of implementation. This lack of a sufficient project description renders the Recirculated Draft SED fatally flawed. A revised SED must include a clear concise project description and well-articulated program of implementation from which there can be a thorough analysis of the environmental impacts of implementation of the proposed project.

D. THE SED FAILED TO IDENTIFY AND CONSIDER A REASONABLE RANGE OF ALTERNATIVES AND FAILED TO EXPLAIN WHY FEASIBLE ALTERNATIVES WERE REJECTED FROM THE REASONABLE RANGE OF ALTERNATIVES

CEQA requires an EIR or SED to describe a range of reasonable alternatives to a proposed project, or to the location of a proposed project, which feasibly obtain most of the basic objectives of the proposed project, but would avoid or substantially lessen any of the significant effects of the proposed project, and evaluate the comparative merits of the alternatives. [CEQA Guideline §15126.6(a).] “The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.” [CEQA Guideline §15126.6(c).] Indeed, an alternatives analysis is “the core of an EIR.” [*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. [CEQA Guideline §15126.6(a).] A SED must explain how project alternatives were selected for analysis. It should also identify alternatives rejected as infeasible and explain why they were rejected. [CEQA Guideline §15126.6(c).]

At the outset, the Recirculated Draft SED statement of the Project Purposes and Goals is completely ill defined and singularly focused in order to result in the State Water Board's desired outcome, **more flow for fish**. The eight goals set forth by the State Water Board are solely focused on flow so that the State Water Board may achieve their desired outcome of implementation of a percentage of unimpaired flow. Virtually no other action could achieve the desired goals except more flow. Imposing these very limiting eight goals inherently narrows the scope of environmental review in a manner inconsistent with CEQA's overarching purpose. The Purposes and Goals section must be modified so that a broad range of alternatives could achieve the desired goals. The goal should be expressed as "establish water quality objectives and a program of implementation for the reasonable protection of fish and wildlife beneficial uses in the LSJR Watershed." Other feasible alternatives exist that do not require the draconian harm inflicted by the percentage of unimpaired flow paradigm. Alternatives do exist that would avoid or substantially lessen potentially significant impacts of the proposed Project. As such the proposed Project must be rejected. For example, the primary goal should be to increase the survival of juvenile outmigrants through the LSJR watershed and Delta. This can be done by implementation of a predator suppression program; creation of greater habitat and gravel augmentation for spawning and rearing in LSJR; and ensuring adequate conditions for emigration including implement ocean harvest practices that maximize returns of adult salmon to the LSJR tributaries. Under certain specified circumstances a public agency may override the conclusion in an EIR in order to reach a desired result; however, this principle does not excuse the public agency from producing a legally sufficient environmental review with an appropriate scope of analysis, even if the analysis conflicts with the agency's predetermined desires.

The alternatives analysis contains multiple errors. To start with, the No Project Alternative oddly includes features that are not part of the current environmental setting or baseline. Therefore, it is not truly a "No-Project" alternative. To put a finer point on it the "No-Project alternative" does not depict no project but rather the current situation with added changed circumstances. Since a no-project alternative is a mandatory element of a legally sufficient EIR. [CEQA Guideline Section 15126.6(e)]. For instance, the No Project Alternative places entire burden of meeting the 2006 Bay Delta WCQP requirements on New Melones Reservoir. This effectively means full compliance with D1641 flow objectives during February through June, April 15 – May 15 pulse flows and salinity water quality requirements not only at Vernalis, but also at the three interior stations. There is no basis for the assumption that full implementation of these standards will be exclusively the responsibility of New Melones. Reclamation currently meets the Vernalis salinity requirements from New Melones, it has never

met, nor even attempted to meet, the interior standards with New Melones water. In addition, D1641 itself contemplates that within two years of expiration or termination of the Vernalis Adaptive Management Plan, that the State Water Board would assign responsibility for these objectives. As noted above, Reclamation has already informed the State Water Board that it will not be meeting the D1641 February through June flow objectives now or in the future.

It is also important to note that both the CVP and the SWP water rights are conditioned upon meeting the three interior Delta stations salinity objectives, and all CVP water rights (not just New Melones) are conditioned upon meeting the Vernalis salinity objective. The three interior Delta stations salinity objectives are consistently exceeded and neither the CVP nor the SWP projects operate to release water to meet these objectives. Therefore for the No Project Alternative to assume these objectives would be met with releases from New Melones Reservoir is completely erroneous. Finally, the No-Project Alternative also assumes June 2009 BiOp Appendix 2E flows on Stanislaus River are met. As detailed above, the Appendix 2-E flows are currently the subject of reconsultation with NMFS and will not likely be in place in the future as they are not based on best available science and implementation of them are not sustainable in light of the dramatic impacts on New Melones operations and storage.

These features amount to significant changes to the current environmental and regulatory setting and convert the no project alternative into an “action” or change alternative. Contrary to CEQA’s minimum legal requirements and procedure, a true “no alternative” is omitted from the SED. [CEQA Guideline §15126(c).]

Additionally, the Recirculated Draft SED, without a sufficiently detailed explanation, omitted feasible alternatives or feasible alternative features to the proposed Project. In the District’s opinion, each of these alternative features to the proposal are feasible as that term is defined by CEQA Guideline Section 15364, and would lessen the intensity of the environmental effect anticipated to occur as a result of implementing the proposal. While the District does not have a legal duty to instruct a Lead Agency about how to conduct a legally sufficient CEQA review, we offer the following comments about the truncated alternatives analysis.

With respect to LSJR flow objectives, the only alternatives considered were based on dedication of a percentage of unimpaired flow. The purported purpose of the LSJR flow objective is the reasonable protection of fish and wildlife and to support and maintain the natural production of native fish populations. However, there are other feasible alternatives including targeted short duration pulse flows during the time period needed for emigrating juvenile fish. These rejected alternatives are capable of lessening the significance of the environmental effects while substantially meeting the objectives of the Project. These feasible alternatives were rejected without sufficient explanation by the SED or the State Water Board. Choosing an alternative that uses more water than reasonably necessary to meet the purpose

of the water quality objective certainly constitutes an unreasonable use of water violating the California Constitution, as discussed above.

There are other feasible non-flow alternatives that will substantially lessen impacts to the fishery to the same extent or greater than the SED, including, but not limited to, improving riparian habitat, gravel enhancement and augmentation, and reduced ocean harvest are present. Most importantly excluded from consideration is a predator suppression program. Extensive information was submitted to the State Water Board regarding the significant effects of predation both in the tributaries and in the Delta. For instance on the Stanislaus River, 95% of the juvenile fish population is lost to predation in the river, that is, fish are caught at an upstream rotary screw trap and then 95% are not captured at the lower trap – lost to predation. It is vital for the SED to consider non-flow measures such as predator suppression as a means to lessen the environmental effects of implementing only flow based alternatives. A failure to consider such an alternative renders this SED legally deficient and illustrates the omission of information and data that is necessary to evaluate the significant environmental effects and the range of measures designed to lessen the identified impact.

With respect to the South Delta salinity objectives, the program of implementation narrows the evaluation process exclusively to conditioning Reclamation water rights to attain the stated objectives. There are additional flow alternatives that are reasonable and must be evaluated in the Recirculated Draft SED. The salinity problem is caused by deliveries from the San Luis Unit of the CVP. The Congressional authorization for the San Luis unit conditioned water deliveries upon completion of a drain. Because deliveries were made without provision for a drain, pollution of the San Joaquin River has resulted. Consequently, one of the alternatives for achieving the Vernalis salinity objective should be imposition of a condition upon the San Luis Unit permits to release water to comply with the Vernalis salinity objective. Several alternatives would be available under this scenario, including releases from San Luis and/or the Delta Mendota Canal with or without recirculation. All of these alternatives must be evaluated.

The salinity problem is also caused by discharges from wetlands and wildlife refuges; discharges which have increased over the past twenty years after augmentation of refuge water supplies through the Central Valley Project Improvement Act. The Recirculated Draft SED must analyze reducing, eliminating or otherwise diluting at the source of this discharge. One very effective way of mitigating the adverse impact caused by the wetland and wildlife refuge discharge is to require the wetlands and wildlife refuges to reserve a portion of their enhanced water supply for use to dilute the discharge in the spring months.

The salinity problem is also caused by agricultural drainage and tile drainage entering the San Joaquin River from westside agricultural interests. The Grasslands Bypass and West

Side Drainage Projects have successfully reduced a significant amount of salt laden drainage entering the San Joaquin River. The Recirculated Draft SED must evaluate additional drainage reuse and other measures to control these discharges or change the timing of these discharges to occur when there is natural assimilative capacity in the San Joaquin River.

In addition to controlling salinity by providing dilution flows, there are additional salinity control actions that should be analyzed, including subsurface storage of drainage, land retirement and out of valley disposal. Adopting salinity objectives for the entire river and implementation through waste discharge permits that would prohibit discharge rather than control its timing should also be evaluated.

The contemplated program of implementation in the SED violates the California Constitution prohibition on the waste and unreasonable use of water. This renders the program of implementation legally infeasible. [CEQA Guideline Section 15364.] Article X, Section 2 declares, "The right to water or to the use of 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 diversions of water." The "[u]se of upstream water to wash out salts downstream is an unreasonable use of water." [*Jordan v. City of Santa Barbara* (1996) 46 Cal.App.4th 1245, 1270; see also *Antioch v. Williams Irrigation District* (1922) 188 Cal. 451, 465.]

As discussed in detail above, maintaining the Vernalis objective at its current levels, in light the increase of the South Delta Objectives, is unnecessary and overprotective of the agricultural beneficial uses at Vernalis. Requiring an artificially low salinity objective and conditioning the Bureau's water right permits to release water to create assimilative capacity to dilute downstream pollution flies directly in contravention of the Constitution and constitutes waste and an unreasonable use of water.

The 2006 Bay Delta Plan acknowledged and discussed the various factors that contribute to elevated salinity in the southern Delta. In its implementation plan, the State Water Board identified various actions that could be used to implement the South Delta salinity objectives. The salinity objectives were to be attained using dilution flows as well as "non-water right actions" which included completion of a drain to remove the salts generated by agricultural drainage and municipal discharges and various other projects aimed at reducing high salinity drainage to the San Joaquin River and improving circulation in the southern Delta. Unfortunately not one of these "non-water right actions" has contributed to meeting the salinity objectives. As a result, dilution flows released by the Bureau of Reclamation from New Melones Reservoir have been the sole means by which the Vernalis objective has been attained. Because of this, New Melones CVP contractors, including the District, have had their

water supply reduced and a disproportionate public burden has fallen on private contractors which have not caused the pollution.

The State Water Board is now proposing to meet the interior Delta objectives through the assimilative capacity provided by maintaining the salinity objective at Vernalis at its current levels. In seeking to do so the State Water Board is now attempting to place an additional burden of meeting the interior objectives on New Melones and its contractors as well. To place this additional disproportionate burden on New Melones and its contractors is fundamentally unfair. The State Water Board should take action to appropriately apportion this burden among all those contributing to the problem as originally intended.

Furthermore, the proposed program of implementation of maintenance of the existing Vernalis salinity objective to provide assimilative capacity for the dilution of downstream pollution violates the Clean Water Act. Requiring dilution flows directly contradicts 40 CFR 131.10(a) which states “in no case shall a State adopt waste transport or waste assimilation as a designated use for any water of the United States.” Effectively conditioning implementation of the existing Vernalis salinity objective is not for the protection of agriculture, but instead to provide dilution flows for downstream, the designated use that the State Water Board is establishing is really “waste assimilation” and expressly prohibited by Federal Law.

Finally, the program of implementation requiring continuing the Vernalis salinity objective for the express purpose of providing assimilative capacity completely disregards the Congressional directive contained in H.R. 2828 (Public Law 108-361) to reduce use of New Melones Reservoir to meet existing Bay-Delta water quality objectives. The Congressional directive clearly and expressly directs the Bureau of Reclamation, with the assistance of the State, to initiate and implement actions to achieve the Bay-Delta water quality objectives while reducing the demand on water from New Melones Reservoir for meeting these objectives. Conditioning the Bureau’s water rights to make releases violates this important provision of federal law.

As detailed above, other feasible alternatives exist and were ignored without explanation. The Recirculated Draft SED does not attempt to explain why all feasible alternatives were rejected as infeasible. The SED has a duty to explain why feasible alternatives such as the alternatives mentioned herein should not be evaluated as part of the SED.

E. THE RECIRCULATED DRAFT SED FAILS TO ACCURATELY DISCLOSE ENVIRONMENTAL EFFECTS OF IMPLEMENTING THE PROJECT

The State Water Board created the Water Supply Effects (WSE) model to evaluate the environmental effects of implementation of the proposed Project. In addition to the errors in

the baseline as described above, the WSE Model contains a series of operational parameters that are neither reasonable nor legal nor within the State Water Board's authority, including minimum carryover requirements, restriction on storage drawdown, drought reservoir refill requirements, flow shifting to fall, minimum district diversion during dry year conditions. For example, the WSE Model assumes that New Melones Reservoir would have a minimum carryover storage requirement of 700,000 acre feet. However, nowhere in the Project Description of the LSJR Flow Objectives is this requirement included as part of the Project or any of the other operational parameters. While the State Water Board makes reference to the need for minimum reservoir levels in the program of implementation, the reference is only in that mitigation measure to reduce temperature impacts are needed and minimum carryover storage requirements is one such tool.

The modeling assumptions that form the basis of the WSE Model and the entire Recirculated Draft SED effects analysis is not reasonable. It is flawed, inaccurate and misrepresents impacts associated with implementing any of the Alternatives on Stanislaus River water users. The unreasonable model results in the omission of relevant data and information about the Project's environmental effects. The WSE Model analysis in Recirculated Draft SED does not identify the impacts from the proposed Project, but rather includes mitigating factors that try to make the analysis work. As a result, for water users on the Stanislaus River, it is impossible to evaluate the environmental effects to groundwater resources, agricultural resources, municipal service providers, as well as all of the other resources.

The SED must correctly quantify the reduction in surface water deliveries to the Stanislaus River water users and then correctly analyze these impacts. The SED purports to show the impacts to water users from the implementation of the LSJR Flow and Salinity Objectives, but these modeled results are neither reliable nor realistic. First, the Recirculated Draft SED minimizes the actual impacts to water right holders by collectively calculating reductions and shortages by tributary, and using annual averages among all year types. This wrongly results in the Recirculated Draft SED concluding that the long-term reduction in surface water supplies for the Project is a mere 14% less than current conditions. That result simply defies reality. While the SED shows an overall 14% reduction in supply, it also states that reductions will take place according to water right priorities. This means that those with junior water rights, like the District, would bear the brunt of the reductions, while others suffer no impacts. It does not show the ramifications of that anywhere in its graphs or summary of water supply effects and therefore omits relevant information and data. What that means to District is never disclosed. From our review of the modeling in above normal years the District will face a 58% reduction in its supply, in below normal years the District will suffer a 68% reduction in supplies, in dry years and critically dry years, the District will face a 100% reduction in its contractual supply.

The most insulting aspect of the impact evaluation is the Staff's suggestion that impact to water users will be minimal because reduction in available surface water will be replaced with groundwater pumping. The SED estimates the proposal could result in an average annual increase in groundwater pumping of 105,000 acre feet. The SED acknowledges that there is already a 45,000 acre feet annual deficit in current groundwater supplies. While noting that groundwater pumping in most of these areas is already unsustainable, the SED fails to evaluate the impact of SGMA on this increased and continued unsustainable use of groundwater. Reductions in pumping that will be imposed by SGMA are not even considered in the SED. The SED asserts that municipal water supplies will not be affected. This is simply not true. The District has historically provided up to 50,000 acre feet of its Stanislaus River supply for municipal purposes. As indicated above, implementing the plan as proposed would produce drastic adverse impacts on the District municipal users, completely eliminating their supply in many years and which was never analyzed in the Recirculated Draft SED.

In particular, there must be a thorough evaluation of the impacts to the Eastern San Joaquin groundwater basin overdraft problem by the reduction of surface water supplies. The District was specifically formed in 1948, succeeding and continuing the efforts of the Linden Irrigation District to address the declining groundwater basin and obtain supplemental surface water supplies. Due to limited surface water supplies, groundwater is the primary source of supply for water users within the District. Groundwater is pumped by individual farmers to irrigate their crops, and is pumped by the City of Stockton, San Joaquin County, and California Water Service Company to deliver to homes and businesses in the greater Stockton metropolitan area.

Groundwater overdraft has serious consequences which threaten the economic health of the region. In addition to the continued migration of saline groundwater, the overdraft adversely impacts the quality of the groundwater that remains in the basin generally, in terms of nitrate levels and total dissolved solids. It also reduces the amount of groundwater available for future use and leads to increased pumping costs. Direct and indirect effects of a reduction in the provision of surface water and the corresponding impact to the groundwater basin and agricultural resources must be included in a revised SED.

As noted above, the District treats and supplies up to 50,000 acre feet to the City of Stockton, San Joaquin County and the California Water Service company. Due to the provision of treated surface water, groundwater levels within the City of Stockton have improved dramatically. Direct and indirect effects of reducing the provision of treated surface water and the corresponding impact to the municipal services providers must be included and assessed in a revised SED. Presently the SED omits relevant information and data.

F. THE SED FAILS TO IDENTIFY AND EVALUATE ALL FEASIBLE MITIGATION MEASURES

The SED is duty bound to “set forth” (P.R.C. §21100), “identify” and “describe” [CEQA Guideline §15126.4(a)(1)] proposed feasible mitigation measures. “A gloomy forecast of environmental degradation is of little or no value without pragmatic, concrete means to minimize the impacts and restore ecological equilibrium.” [*Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 1039.]

Thus a SED must describe feasible mitigation measures that could minimize the preferred project’s adverse environmental effects. [CEQA Guideline §15126.4(a)(1).] Omitting feasible mitigation measures undermines the minimum requirements of a SED. This is because “[w]here several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified.” [CEQA Guideline §15126.4(a)(1)(B).] By omitting feasible mitigation measures the SED cannot comply with the requirement to discuss each feasible mitigation measure and provide guidance to decision-makers and the public about the relative merits of selecting one measure over another measure.

Specifically, the Recirculated SED states:

“The LSJR alternatives could require higher river flows in the three eastside tributaries and would potentially result in a change in surface water diversions. The runoff to the eastside tributary reservoirs is determined by rainfall and snowmelt conditions and the reservoir storage capacity is fixed. Accordingly, *there is no possibility of increasing the total surface water supply to provide more water for surface water diversions.* More water released to the rivers would leave less water available for water supply diversions. The WSE model was used to predict the change in annual surface water diversions expected under each LSJR alternative...”

[SED at pg. 5-73 (italics added).]

The SED introduces the fatally flawed WSE Model as the evaluative tool for assessing impacts from LSJR Alternatives which completely masks the impacts on water diversion. As described above, the WSE model utilizes an inaccurate baseline and unreasonable and/or unlawful operational assumption. Including these unreasonable and/or unlawful operational assumptions thwarts any ability to develop feasible mitigation measures for the severe impacts to water diversions. The Recirculated Draft SED concludes based on the flawed modeling that a 14% reduction in water diversion is less than significant. Where is the evaluation of the feasible

mitigation measures to mitigate the District 58% reduction in its supply in above normal years, the District's 68% reduction in supplies in below normal years and the District 100% reduction in its contractual supply in dry years and critically dry years? This evaluation is necessary to supply relevant information and data.

For each significant impact, the SED must identify specific mitigation measures. Where several potential mitigation measures are available, each should be discussed separately, and the reasons for choosing one over the other should be stated. [*Id.*] If including a mitigation measure would itself create new significant effects, these too, must be discussed, though in less detail than required for those caused by the project itself. [*Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027 (“SOCA”); *Mount Shasta*, at 439; 23 CCR, § 3777(b)(3); Pub. Resources Code, § 21002.] The SED has not provided the requisite mitigation analysis. Instead of proposing feasible mitigation measures for the impacts to groundwater basins, the Recirculated Draft SED, defers to the yet to be formed Groundwater Sustainability Agencies. This deferral violates CEQA, is not supported by substantial evidence and renders the SED legally deficient. Moreover, the Recirculated Draft SED does not consider the feasibility of non-flow mitigation measures in any of its analysis thereby rendering the SED legally deficient.

G. THE SED'S TREATMENT OF THE GREEN HOUSE GAS ENVIRONMENTAL IMPACT IS LEGALLY DEFICIENT

Failing to adequately address the global warming issue is a serious deficiency. Such an omission as found here results in the failure to proceed in the manner required by law and an agency must explain in at least minimum detail the “compelling, countervailing considerations.” [*Citizens to Preserve the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 430.] [“The EIR does not explain in even minimum detail the basis for the omission and provides no reasoned analysis clarifying why complete reliance on the AQNP is justified when this major omission exists.”] The error is at least three-fold. First, the SED fails to adopt a legally sufficient threshold of significance for purposes of evaluating the significance of the potential environmental impact. Second, the SED omitted clearly understood potential environmental impacts flowing from the preferred project. Third, the SED did not evaluate feasible mitigation measures that could lessen the impact of global warming caused by the preferred project.

This failure is exacerbated by the fact the State of California has aggressively promoted a policy requiring government agencies to consider and mitigate cumulative global warming impacts and yet here a state agency sidesteps this obligation. Without referencing or applying any threshold of significance the SED nakedly concludes that an individual project cannot have a direct environmental effect. This conclusion is reached without any analysis or any effort to compare some type of analysis to the applicable threshold of significance. This poses two problems. First, it truncates the analysis required by CEQA and collapses intermediate

procedures required by CEQA before a public agency can conclude that a direct impact is not significant. Second, the approach conflicts with various state policies regarding climate change.

The SED is inherently contradictory. Indeed the so-called threshold of significance for climate change is no criteria at all but instead a tautological mixed word salad. According to the SED, “climate change would be significant if the LSJR alternatives result in any of the following conditions. Generate GHG emission, either directly or indirectly, that have a significant impact on the environment.” [SED at 14-27.] In other words the definition for a threshold of significance is highly tautological and meaningless; it is “emissions...that may have a significant impact on the environment.” The abject defectiveness of this abbreviated threshold of significance is explained by the CEQA Guideline definition of a threshold of significance:

“A threshold of significance is **an identifiable quantitative, qualitative or performance level** of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined as less than significant.”

[CEQA Guideline §15064.7(a) (bolding and underscoring added.) The SED’s embryonic threshold of significance lacks “an identifiable quantitative, qualitative or performance level” and therefore is insufficient for CEQA purposes.

Public agencies are encouraged to adopt thresholds of significance. [CEQA Guideline §15064.7.] For evaluating individual projects the State of California and regional state agencies offered multiple thresholds of significance for global warming. For instance, the South Coast Air District believes a project emitting three tons of GHG a year is significant. South Coast Air Quality Management District, “Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (October 2008).” AB 32 establishes a state goal of reducing GHG emissions to 1990 levels by 2020 (a reduction of approximately 25 percent from forecast emission levels).

Recently the State Air Resources Board concluded that the threshold should either be a zero threshold or, if a non-zero threshold is employed it “must be sufficiently stringent to make substantial contributions to reducing the State’s GHG emission peak, to causing that peak to occur sooner or to putting California on the right track to meet its interim (2020) and long term (2050) emissions reduction targets.” California Air Resources Board. Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significant Thresholds for Greenhouse Gases under the California Environmental Quality Act (October 24, 2008). In any event, the threshold is either a net no increase in emitting GHG or “stringent” steps to foster attaining the 2020 and 2050 goals.

Since this public agency is acting as an agency of the State of California, it is bound by Executive Order Number 3-05 (June 1, 2005) calling for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions to 1990 levels by 2050. This Executive Order constitutes a mandatory duty to all state agencies and constitutes a threshold of significance whenever a state agency is reviewing a proposal.

At least two fatal flaws are embedded in the SED concerning GHG. First, the section lacks a threshold of significance involving “an identifiable quantitative, qualitative or performance level.” Instead the threshold of significance has as the threshold “significance.” This tautological threshold prevents the reader from determining whether the impact is significant or not. Instead, the section, without any evidentiary support, concludes the emissions of a lone single project will not cause global climate change. Yet the various thresholds of significance discussed earlier, and ignored by the SED, do not focus on this question. Instead, the thresholds of significance focus on whether the proposal helps or hurts efforts to meet the 2020 and 2050 goals. Without a threshold of significance statement the entire analysis lacks an intellectual context and results in omitting relevant information.

Indeed, a SED’s sketchy treatment of the threshold or method to conclude whether an environmental effect is significant renders such a SED legal deficient. In *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, the court discussed the use of thresholds in determining (1) whether to prepare an EIR and (2) whether any of the possible significant environmental effects of the project will, in fact, be significant. [*Id.* at 1106-09.] The court held that “the fact that a particular environmental effect meets a particular threshold cannot be used as an automatic determinant that the effect is or is not significant...a threshold of significance cannot be applied in a way that would foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant.” [*Id.* at 1109.]

In the EIR, the Amador Water Agency set forth various standards of significance, which mirrored Appendix G sample questions. The agency determined the reduced stream flows “are insignificant since the thresholds developed from the standardized Appendix G checklist make it so.” [*Id.* at 1111.] Petitioner asserted the agency abused its discretion by adopting narrow and irrelevant thresholds of significance which did not address the particular physical change the project would have on the seasonal reduction of surface flow in local streams.

The court did not even address petitioner’s claim because “contrary to CEQA requirements, the EIR fails to explain the reasons *why* the Agency found the reduction in stream flow would not be significant.” [*Id.* at 1111.] The court held the EIR provided nothing but a “bare conclusion” because it simply explained how construction would affect existing

local hydrology by reducing surface flow and then baldly concluded the impact would not be significant. [*Id.*] Since the EIR lacked a “statement of reasons”, the court was unable to determine whether the agency reached its “less than significant” conclusion based on substantial evidence in the record or because it applied standards of significance that did not address reduction in stream flow as a potential environmental effect of the project. [*Id.*] at 1112.] Either way, the agency abused its discretion by omitting the required statement of reasons. [*Id.*]

Second, the SED does not provide information about the amount of GHG produced by the Project and whether the amount emitted facilitates meeting the 2020 and 2050 goals. In short, rather than contribute to reducing GHG emissions to 1990 standard this project has the individual characteristic of making the GHG situation substantially worse. This means, according to the Governor’s Executive Order, the Project has a direct significant environmental effect to GHG.

Accordingly, under any of the proposed and adopted thresholds of significance discussed earlier, the Project’s individual impact on GHG is significant. The DEIR omits relevant information and data and reaches the wrong conclusion about whether the impact is significant or not. The SED’s confusing statement that no “acceptable” or “directly applicable” established thresholds of significance exists (SED at 14-28 and 14-28 n.6) does not cohere to CEQA. In some respect of varying intensity the Plan will lessen reliance on surface water and increase reliance on groundwater. Added reliance on groundwater necessarily involves increased reliance on agricultural water pumping which in turn increase the use and emission of energy expended in pumping activities. The emissions from increased pumping needs to be quantified and compared against a threshold of significance.

Does this change constitute a significant direct or cumulative impact? At the conclusion of the analysis, page 14-37 of the SED, the reader is left to wonder if the increased energy consumption is significant or not.

Besides presenting a flawed analysis due to the lack of a legally sufficient threshold to evaluate the potential impact, the SED also fails to address at least one potentially significant environmental effect. The proposed Project will induce agricultural operations to rely more on groundwater to make up for the loss of surface water lost as surface water is diverted to environmental purposes. This means agriculture will rely more heavily on gas diesel pumps to obtain the groundwater that is being substituted for surface water. The SED fails to make any effort to quantify the significance of this material change in agricultural practices induced by the proposed Project. Certainly the amount of additional pumping could be quantified and the amount of additional gas diesel emitted as a result of this new policy could be quantified and

evaluated against existing air pollution standards. In addition, the SED could correlate the increased emission of diesel pollution to increase incidents of health ailments.

Failing to correlate the Project's adverse air quality impacts to increased incidents of health ailments constitutes a prejudicial abuse of discretion. Health problems caused by a project must be addressed in an EIR, including health effects caused by increases in air pollution. [*Bakersfield* at 1220.] Specifically, CEQA requires an EIR to discuss "health and safety problems caused by the physical changes" by the proposal. [CEQA Guideline §15126.2 (a).] In order to meet CEQA's disclosure requirement, an EIR must "*correlate* the identified adverse air quality impacts to resultant adverse health effects." [*Bakersfield* at 1219 (italics added).] "Correlate" is defined as: "to bring (a thing) into mutual relation (*with* another thing); **calculate** or show the reciprocal relation between; specif., to bring (one or two related or interdependent **quantities**, sets of statistics, etc.) into contrast (*with* the other)." [Webster's New World Dictionary 319 (2d College ed. 1985) (italics in original; bold added).]

Thus, the court in *Bakersfield* used "correlate" to mean a SED must disclose the proportional relationship between increased tonnages in air pollution and increased incidents of health ailments. This SED fails to comply with this necessary informational disclosure requirement. Indeed, *Bakersfield* teaches us a truncated analysis involving a bare statement that increased air pollution tonnages means more people get ill fails to satisfy CEQA's information disclosure requirement. In *Bakersfield*, the two EIRs at issue calculated the approximate increased tonnage of air pollution and then baldly concluded that more air pollution means more health and respiratory ailments. [*Id.* at 1220.] According to *Bakersfield*, this embryonic level of detail is insufficient and resulted in the Appellate Court rejecting the air quality analyses for failing to quantify or correlate the relationship between increased health ailments and increased air pollution. [*Id.* at 1220-1221.] Accordingly, it is not enough for a SED to simplistically conclude air pollution will increase and then supply a laundry list of pollutants and related health effects. Rather, CEQA is satisfied only when a SED discloses and quantifies anticipated increases of health ailment events resulting from a project's increases in air pollution tonnages.

As *Bakersfield* holds, brief references to, or the listing of, potential respiratory illnesses do not satisfy CEQA. [*Bakersfield* at 1220.] It is only when correct and feasible scientific analysis is conducted and the SED calculates the significance of the impact in terms of increased events of disease and suffering, are the public and decision makers notified of a project's true impacts. This correlation information is scientifically possible and legally required [*Bakersfield* at 1220], and the omission amounts to a prejudicial failure to proceed in the manner required by law.

For instance the SED suggests that cumulative air quality impacts are not significant because some types of air pollution will increase while other types of air pollution will decline in significance. [SED at 17-65.] This gross conclusion lacks any scientific or technical support; indeed, it lacks any math whatsoever to prove that the competing increases and decreases perfectly offset one another. But from a health risk assessment, different air pollutants are responsible for different health ailments. This SED makes no effort to ascertain the change in potential health ailments due to the change in the mixture of air pollutants.

Moreover, the SED fails to discuss the feasibility of multiple mitigation measures that could be imposed to reduce this significant effect. CEQA requires all feasible mitigation measures to be incorporated into a project, even if the environmental effect remains significant. The State of California, Office of the Governor, Office of Planning and Research, has identified thirty three feasible mitigation measures to reduce GHG and attain the 2020 and 2050 goals. See State of California, Office of Planning & Research. "CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review (June 19, 2008). Each mitigation measure is feasible for the proposal and the SED has a duty to identify and discuss each proposed measure. Failing to perform this task results in an omission of information and failure to proceed in a manner required by law.

H. ENERGY ANALYSIS

The SED offers a sparse analysis of energy impacts that fails to supply relevant data and information. [SED at 14-27 through 14-34] CEQA Guideline Appendix F offers a comprehensive design for a legally sufficient analysis of a project's impact to energy. A comparison between the SED analysis and the topics identified in Section II of Appendix F underscores the under inclusiveness of the SED energy analysis. The SED concedes that the energy analysis is subject to Appendix F, see page 14-27. In two separate paragraphs the SED relies on Appendix F as authority for assessing energy impacts. While the SED analysis provides simple mathematical calculations no serious effort is made to link the change in energy use to environmental effects, both direct and indirect. In short the analysis presents some mathematical calculations but fully dispenses with explain the meaningfulness of the changes caused by implementing the proposal.

This failure to conduct a sufficient assessment of energy impacts applies with equal dignity to Chapter 14's consideration of Greenhouse Gases.

III. CONCLUSION

In conclusion, this Recirculated Draft SED is fatally flawed and must be redone again. The SED modeling must utilize a model and assumptions that accurately represents baseline

State Water Resources Control Board

Attn: Ms. Jeanine Townsend

March 17, 2017

Page 47 of 47

and water supply operations. We appreciate the opportunity to comment and look forward to working with your staff on an additional revised and recirculated SED.

Very truly yours,



KARNA E. HARRIGFELD

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KEH:lac

cc: Mr. Scot A. Moody

ATTACHMENT A

STOCKTON EAST WATER DISTRICT (SEWD) – ERRATA COMMENTS

State Water Board Recirculated Draft Substitute Environmental Document (SED)

Chapter 2 – Water Resources

Pg. 2-7: Table 2-3 needs to be revised to show that SEWD is a “Surface Water User” of Stanislaus River water.

Pg. 2-25: Section 2.5.1: Strike “municipal” as SEWD is governed by its Special Legislation and then otherwise governed as a Water Conservation District pursuant to Water Code Section 74000.

Pg. 2-30: Section 2.5.3: It should be noted that D-1641 expressly states that Reclamation’s obligation to meet the Vernalis flow objectives (February through June) was on “an interim basis” until the Board adopts a decision assigning permanent responsibility. Moreover, D-1641 provides following the expiration or termination of the San Joaquin River Agreement, Reclamation obligation to meet the April-May pulse flow was equally temporary until the State Water Board establishes alternative implementation, which it has failed to do for the past 6 years.

Pg. 2-32-34: Section 2.5.4: The analysis in this section should be expanded as the June 2009 NMFS BiOp has been in place since 2009 and Appendix 2E flows have been made since that time which are different than the flows contained in this Section.

Pg. 2-45: Section 2.8.1: The reason why the cone of depression is not as severe as it once was in the direct result of SEWD receiving surface water deliveries from the Stanislaus River.

Chapter 5 – Surface Hydrology and Water Quality

Chapter 5: The entire chapter needs to be redone as it fails to evaluate the significant effects on the reduction of surface water supplies resulting from implementation of LSJR Flow Objectives. Expressly excluded SEWD delivery of up to 50,000 acre feet to M&I water users.

Pg. 5-47: Table 5-15a: Do these measured releases include water released from New Melones to meeting the Vernalis salinity objective?

Pg. 5-67: Figure 5-7: This graph demonstrates New Melones cannot be sustainably managed to achieve all of the D1641 requirements.

Pg. 5-70: Third bullet: How are releases from New Melones Reservoir represented, documented or accounted for?

Pg. 5-84: “The modeling incorporated additional release from New Melones Reservoir in some months to satisfy the baseline” – Where is this documented?

Pg. 5-90 and 5-93: “with adjusted Stanislaus River flows to meet the Vernalis EC Objective” – How much water is required? Where is this information depicted? Wouldn’t less water be needed with increased flows on the Tuolumne and Merced rivers?

Chapter 6 – Flooding, Sediment, and Erosion

Pg. 6-13: “Current USFWS results indicate that floodplain inundation began at 1,250 cfs in both Ripon to Jacob Meyers and the Orange Blossom Bridge to Knight’s Ferry reaches.” This is not a correct statement.

Pg. 6-27: Table 6-13 – The text needs to evaluate the significant environmental impact on the orchards on the Stanislaus River when flows will be higher than 1,500 cfs at Ripon by 13%, 28%, 56%, 65% and 24% in February through June respectively. The analysis is woefully inadequate.

Chapter 9 – Groundwater Resources

Chapter 9: Entire chapter needs to be redone as it fails to evaluate the significant increase in groundwater pumping that will result from implementation of LSJR Flow Objectives. It is also silent on the impacts to the groundwater basin underlying the City of Stockton. Reduction in surface water supplies on the Stanislaus river will have significant impacts to groundwater levels and water quality, including the further intrusion of saline brine, this must be addressed in this Chapter.

Page 9-10 – Eastern San Joaquin groundwater basin declared in a state of critical overdraft in 1980.

Table 9-6 – SEWD has 95,400 irrigated acres.

Page 9-25 – Description of SEWD: “The volume delivered to each retailer is based on the percentage of total groundwater and surface water used in each retailer’s area during the previous year, which is updated every year.” This is absolutely incorrect. The volume of water is dependent upon how much surface water is available to SEWD. The retailers are required to make every effort to use all the treated surface water made available by SEWD. In times of shortage, the retailers decide among themselves what the percentage will be.

Page 9-44: Bullet: SEWD recognized M&I demands should be represented and accounted for. Failure to include the 50,000 acre feet M&I demand grossly underestimates the environmental effects on groundwater and the groundwater basin.

Page 9-45: Description of SEWD using Calaveras River water as a municipal water supply is patently unrealistic when the Calaveras River is already fully utilized.

Chapters 11, 13 and 20 – Entire chapter needs to be redone as it fails to evaluate the significant effects of the reduction of surface water supplies resulting from implementation of LSJR Flow Objectives within SEWD and the corresponding increase in groundwater pumping.

ATTACHMENT B

TO: Karna Harrigfeld
FROM: FISHBIO
DATE: March 11, 2017
SUBJECT: **Review of Presentation on Salmon Lifehistory Portfolios in a Regulated River at November 29, 2017 Bay Delta Plan Phase I Hearing**

This memorandum provides a review of the presentation of Rachel Johnson and Anna Sturrock on *Salmon Lifehistory Portfolios in a Regulated River* presented to the State Water Resources Control Board (SWRCB) on November 29, 2016. The presentation focused on interpretation of rotary screw trap data from the Stanislaus River at Caswell and microchemical analyses of otoliths to determine lifestage at migration and relative contribution to escapement.

Below is a summary of the key findings from FISHBIO's review of the presentation.

Key Findings

- Data used in the presentation to evaluate lifehistory expression represents both expression and survival during migration. Data from long-term outmigration monitoring at another site are available to evaluate lifehistory expression independent of survival. Based on this data, all lifehistory strategies are expressed in all years under existing conditions, which contrasts with the presentation.
- The presentation demonstrates that, based on otolith analyses, all lifehistory strategies are viable under existing conditions.
- The degree of success for fry outmigrants is highly variable, and fry survival can be improved with short duration pulse flows in drier years absent natural run-off events.
- Escapement is dominated by out-of-basin, hatchery origin fish, which poses the greatest threat to diversity.
- Otolith analyses are informative, and conducted over long-term, provide vital information to complement other long-term monitoring efforts such as rotary screw trapping to estimate juvenile production and survival, and weir monitoring to estimate adult escapement.

Diversity

Similar to Sacramento River Fall-run Chinook salmon (Lindley et al 2009), San Joaquin Basin fall-run Chinook salmon have been found to exhibit three distinct outmigration strategies: (1) ***fry migrants***, which are typically the most abundant, migrate from the tributaries soon after emergence to rear in the Delta; (2) ***smolt migrants*** remain near freshwater spawning areas for several months, migrating primarily from the tributaries during April and May and passing

quickly (i.e., approximately seven days) through the Delta (SJRG 2011); and (3) an unknown, but presumably very small, portion of *yearling migrants* remain in their natal streams through the summer and migrate during the fall or winter. Some juveniles migrate as parr which can be considered a transitional stage (i.e., large fry or early smolts).

Not all strategies may be successful or equally successful in all years, but the expression of diversity in lifehistory strategy provides a buffer. In addition to diversity in outmigration strategy, salmon also exhibit diversity in age at return. These factors promote resilience of the population to persist through and rebound from conditions such as the recent drought.

Rotary screw trap monitoring to document the abundance and migration timing of juvenile Chinook salmon from the Stanislaus River began in the mid-1990s. Monitoring is conducted at two sites. Rotary screw trap monitoring at Oakdale (RM 40.1), near the downstream extent of the primary rearing reach, provides a measure of the number of juvenile salmon beginning their seaward migration. Lifestage at migration is also documented, providing a measure of expression of lifehistory diversity. The Caswell rotary screw trap (RM 8.6) data represents the composite of both lifehistory expression and survival during migration from the primary rearing area. This monitoring strategy allows us to isolate expression of lifehistory diversity from survival through 31.5 miles of the lower Stanislaus River between the trapping sites.

The presenters used the estimated abundance of juvenile Chinook salmon at Caswell as a measure of expression of diversity, but this data also reflects survival through the lower river. The presentation misses the fact that two decades of monitoring at Oakdale (Figure 1) shows that all lifehistory strategies are expressed in all years ranging from wet conditions of the late 1990s to the recent drought (Figure 2). All lifehistory strategies are expressed in all years under existing conditions.

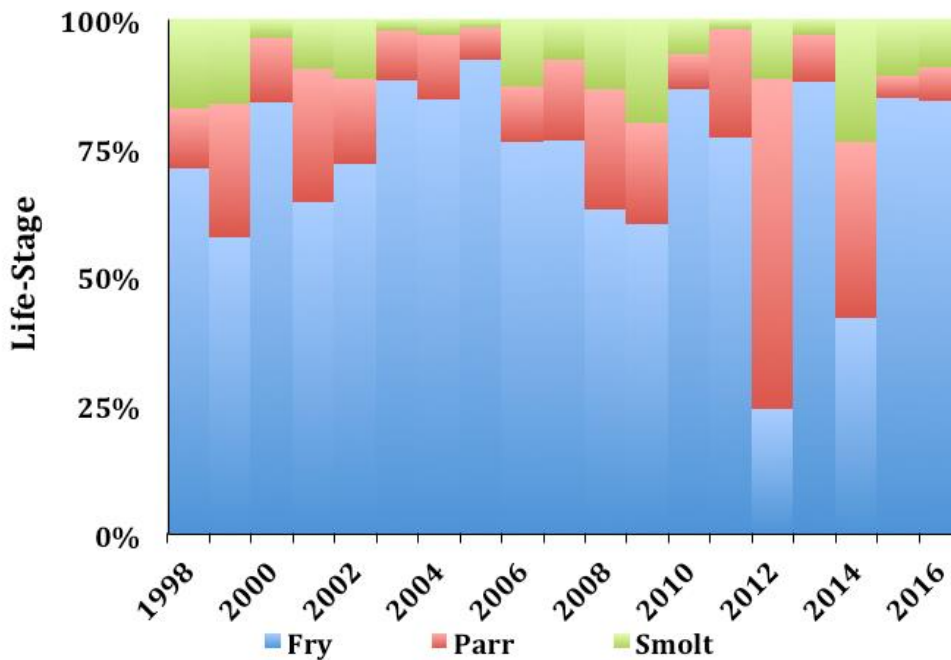


Figure 1. Juvenile Chinook salmon abundance by lifestage at Oakdale. Source: FISHBIO unpublished data.

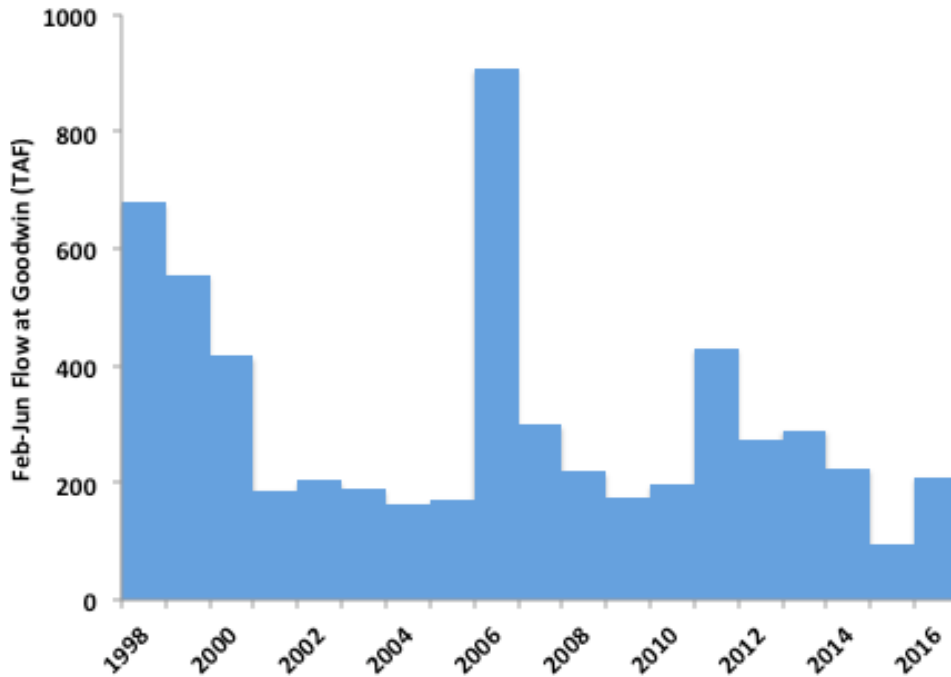


Figure 2. Total annual volume of Stanislaus River at Goodwin Dam during February-June.

Survival

While all lifehistory strategies are expressed in all years, not all lifestages are equally successful in migrating through the lower 31.5 miles to reach Caswell (Figure 3). Fry attempt to migrate in all years, but are not always successful. During drier years, in the absence of pulse flows or natural run-off events, few fry survive the migration through the lower Stanislaus River between the Oakdale and Caswell traps. Analysis of the rotary screw trap data found that Stanislaus River flows have a strong positive relationship with migration survival of Chinook fry, but weak associations with parr and smolt survival (Pyper and Justice 2006).

The poor survival of fry was first identified during the dry years of 2001 and 2002. In 2003 an experiment was conducted to determine if simulating a natural run-off event by increasing reservoir releases could improve fry survival. Based on the results of the one year experiment, combined with observations in other years, pulse flows of approximately 750 cfs for 2 days can improve fry survival to Caswell, but the success rate is lower in the absence of the increased turbidity that occurs during run-off events in wetter years (Demko 2003). However, uncertainty remained as to whether these fry would survive the remainder of their migration through the lower San Joaquin River and Delta to contribute to adult escapement.

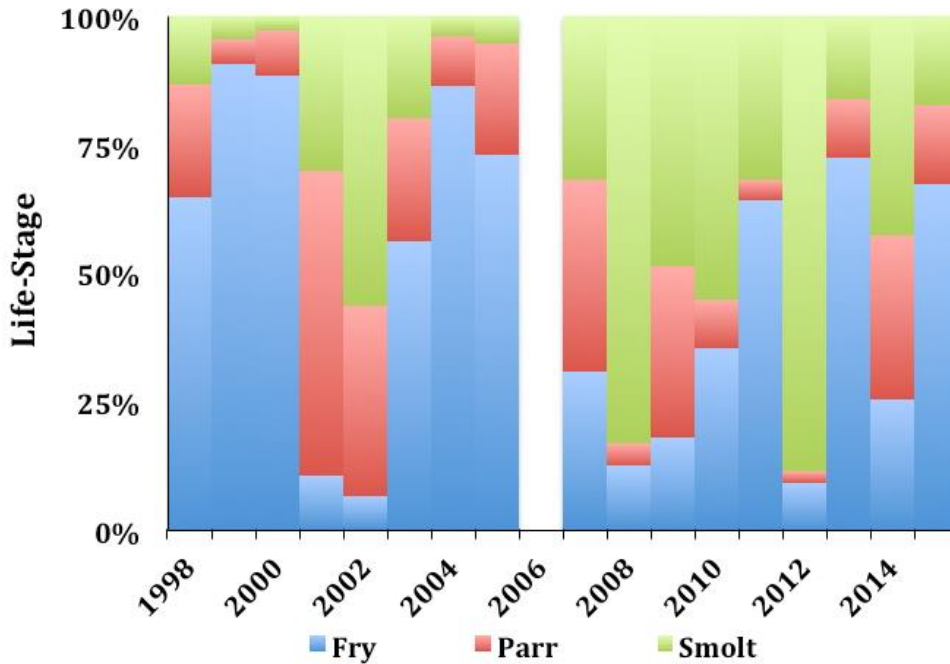


Figure 3. Juvenile Chinook salmon catch by lifestage at Caswell. Note: 2006 excluded due to incomplete sampling.

Otolith analysis identified that all lifehistory strategies from the 2003 outmigration were represented in subsequent escapement (Sturrock et al 2015). This provided confirmation that all lifehistory strategies, including fry, were viable in 2003. The same study also confirmed that all lifehistory strategies, including fry, were viable in 2000. Results of more recent, unpublished analyses of otoliths confirm that fry were also viable under wet conditions in 1999 and 2011, and under dry conditions in 2004, 2008, and 2009 as shown in the November 29th presentation. Based on these results the presenters conclude that all lifehistory strategies are viable. We agree that all lifehistory strategies are viable under existing conditions. Interestingly, the presentation shows that fry were even viable in dry years without pulse flows when few fry survived to Caswell.

In the notes on slide 5, the authors claim that higher flow years tend to also have far more outmigrants. While we agree that more fry survive to Caswell during higher flow years, and that the number of fry attempting to migrate dominate the outmigrant population in all years, the particular analysis presented is not a valid assessment as it does not consider differences in the number of spawners between 2000 and 2003. The number of spawners producing the wet year outmigrants in 2000 (3,087 spawners) was 3.6 times the number of spawners producing the dry year outmigrants in 2003 (865 spawners). The abundance estimates at Oakdale during these years mirrors the spawning abundance with juvenile abundance in 2000 being 3.7 times the number of juveniles produced in 2003. The difference in the Caswell estimates is driven by the poor survival of fry between Oakdale and Caswell in the dry year.

In the notes on slide 6, the authors claim that modeling efforts found increased instream survival at higher cumulative discharge and variance. Again, this is largely driven by the loss of fry in dry years and their relative success in years with natural run-off events.

Also of interest, page 19-3 of the SWRCB's SED states that "Analyses of historical abundance indicate that late winter and spring flows (Feb-Jun) in the tributaries and mainstem SJR have had a strong influence on survival and abundance of SJR Basin salmon since records began in the 1940s or 1950s." One of the references cited in support of this statement is Sturrock et al 2015. However, the cited study actually made the following conclusions which do not support the statement in the SED:

- "Generally, outmigrant survival downstream of the Stanislaus was slightly higher in the drier year (2003) than the wetter year (2000), but significant differences were not detected."
- "Although lower flows and warmer temperatures in the Stanislaus may have contributed to the lower outmigrant production observed in 2003, our results suggest that after exiting the natal river, there was no significant difference in juvenile survival. Survival rates were, if anything, marginally higher in 2003, contradicting many tagging studies which find reduced salmon survival through the freshwater delta during low flow conditions."

While salmon abundance has typically declined in response to drought conditions, it is unusual to see the recent surge in abundance on the Stanislaus River. Most salmon return to the Central Valley at 2, 3, and 4 years of age so escapement during 2015 and 2016 would correspond to juvenile outmigration during 2012, 2013, 2014, and 2015 spanning nearly the entire drought period. While juvenile production in the Stanislaus River during 2013 was the highest on record at the Oakdale rotary screw trap, there is no indication that salmon escaping to the Stanislaus River were produced in the Stanislaus River.

Hatchery Influence

With all lifehistory strategies expressed in all years under existing conditions and all lifehistory strategies viable under existing conditions, what other factors pose a threat to protecting genetic diversity? Both the presentation and the SED are silent to the fact that escapement to the Stanislaus River is dominated by hatchery fish, yet there is no hatchery on the Stanislaus River.

Since the Constant Fractional Marking (CFM) Program, which was initiated in 2007 to provide more reliable estimates of natural production of Central Valley salmon, estimates of hatchery and natural production have been released for three years. With 2010 representing partial implementation as 4 year old fish were not subject to CFM, it was estimated that 50% of the escapement to the Stanislaus was of hatchery origin (Kormos et al 2012). During 2011 and 2012, the first two years in which all returns would have been subject to CFM, the estimates increased to 83% in both years (Palmer-Zwahlen and Kormos 2013, Palmer-Zwahlen and Kormos 2015). During the most recent years that data is available, the majority of coded wire tags recovered in the Stanislaus River were from the Mokelumne Hatchery.

While estimates from the CFM program are not yet available for more recent years, simple math suggests that escapement to these streams has continued to be dominated by hatchery fish. Of the 12,708 adult salmon counted at the Stanislaus River weir during 2015 and 14,396 counted in 2016, in each year, 26% were adipose fin clipped (ad-clip) indicating hatchery origin (Table 1). Approximately 25% of hatchery production is marked through the CFM Program, so only 1 out of 4 hatchery fish released is identifiable by an adipose fin clip. As the proportions of tagged fish observed at the Stanislaus weir is also roughly 25%, this indicates that adult abundance continues to be dominated by hatchery fish. There is not a hatchery on the Stanislaus so these are fish straying from other streams to spawn.

Table 1. Adult salmon counts at the Stanislaus River weir and proportion ad-clipped indicating known hatchery origin.

Year	Total Chinook Observed	Total Ad-clip Observed	Percent Ad-clipped
2010	1,355	341	25%
2011	815	698	86%
2012	7,249	4,782	66%
2013	5,459	1,272	23%
2014	5,534	1,223	22%
2015	12,708	3,279	26%
2016	14,396	3,718	26%

In reviewing recent hatchery records, recent changes in hatchery production and release locations may potentially explain the large numbers of Chinook salmon in the Stanislaus River during a drought. Release data from all five Central Valley hatcheries were obtained and reviewed from brood years 2006 through 2014 (i.e., juveniles released in 2007 through 2015). Most CV Chinook salmon return at three years of age, which would correspond to returns beginning in 2010, but it is also common for some fish to return at two and four years of age.

Total hatchery production of fall-run Chinook salmon has ranged from approximately 25 million to 35 million during brood years 2007 through 2015, with the exception of brood year 2011 when more than 45 million juvenile salmon were produced (Figure 4). Coleman National Fish Hatchery is the most productive, releasing 37% to 54% of all hatchery salmon during 2007-2015. Production from Nimbus Hatchery (American River) and from the Mokelumne River Hatchery since 2010 has been relatively consistent, while production from Feather River Hatchery has declined. Production from the Merced River Hatchery increased substantially during brood years 2012 and 2013 from less than 400,000 to approximately 1.5 million. The increase in production from Merced River Hatchery corresponds with adult salmon returning at two and three years of age during 2015 and three and four years of age in 2016, and is one factor likely contributing to the high salmon abundance observed in the Stanislaus River during 2015 and 2016.

Another factor likely contributing to the increased abundance of adult salmon in the Stanislaus River during 2015 and 2016 is a shift in hatchery fish release locations. While it has been

common for hatcheries on the Mokelumne, Feather, and American rivers to release most of their production off-site at locations in the Bay and Delta, the majority of production from the Merced River and Coleman National Fish hatcheries has, until recently, been released at or near the hatcheries (Figure 4). At the same time that production from Merced River Hatchery more than tripled, there was a concurrent shift to releasing these fish far downstream at Jersey Point. Similarly, releases from Coleman Hatchery shifted from 0%-12% off-site to 62% in brood year 2013 and 100% in 2014. These changes in release location are believed to be another factor likely contributing to the high salmon abundance observed in the Stanislaus River during 2015 and 2016.

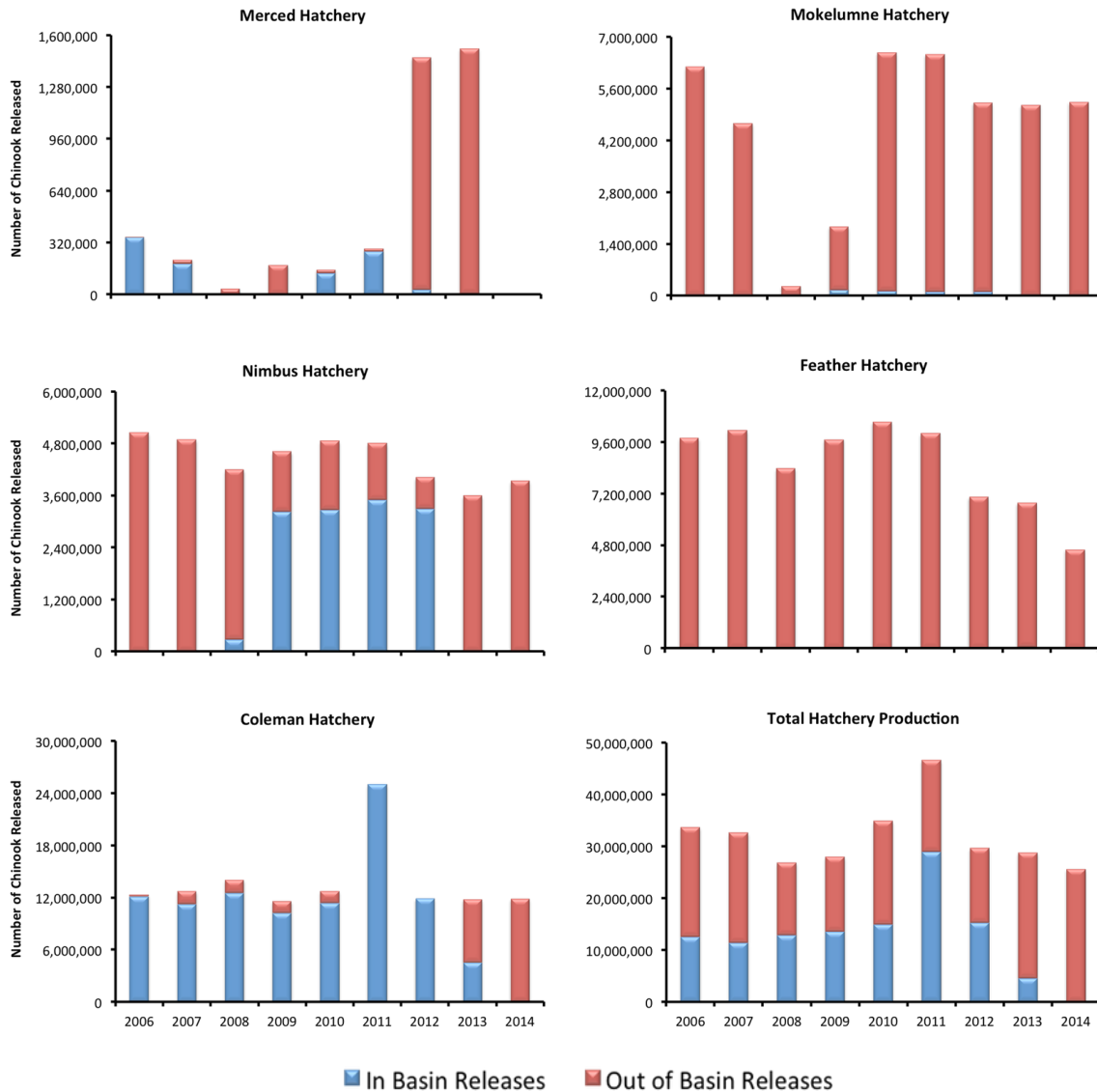


Figure 4. Fall-run Chinook salmon production from Central Valley hatcheries during brood years 2006 through 2014.

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