Public Hearing (3/20/13)
Bay-Delta Plan SED
Deadline: 3/29/13 by 12 noon

March 29, 2013

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State Water Resources Control Board
Cal/EPA Headquarters
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Submitted Via Email: commentletters@waterboards.ca.gov and Fax: 916-341-5620

RE: Comments on San Joaquin River Flows and Southern Delta Water Quality SED

Dear Members of the Board:

On behalf of Sierra Club California and our more than 150,000 members, thank you for receiving and considering our comments on the *Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento/ San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality.*

Sierra Club California's water resources policies support water laws and programs that:

- **Increase freshwater flows into the Bay-Delta as needed for restoration and health of the native aquatic ecosystems and water-dependent species.**
- Develop a sustainable relationship between people and the aquatic environment to meet the needs of each.
- Give priority to meeting goals for ecosystem restoration and protection, reducing the State's reliance on the Delta, fulfilling the Public Trust, and improving coordination and openness in governance of this imperiled water resource. Do not depend on maintaining at current levels, or increasing, water exports from the Delta.
- Utilize water conserving practices in agricultural and urban areas such as converting from high-water-using to drought-tolerant landscapes and utilizing gray water for landscaping
- Facilitate reallocation of water supplies (and water rights) from out-of-stream uses to the environment
- Monitor all key ecosystem characteristics, including water quality, flow levels, population levels, reproductive success, and human disruption

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- Develop accessible and generally accepted models which accurately describe the relationship between management options (flow and quality standards, human-caused disruption, facilities, etc.) and the environment (populations, reproductive success, etc)

Sierra Club volunteers who have expertise in the technical and policy aspects of California's water supply have carefully analyzed the San Joaquin River Flows and Southern Delta Water Quality Plan and Substitute Environmental Document (SED). These comments reflect their careful work. Our organization has two major categories of concerns regarding the SED:

- The scope of the amendments to the Water Quality Control Plan proposed in the document is excessively narrow.
- The selection of the 35% flow alternative as the preferred and therefore the environmentally superior of all feasible alternatives is based on inappropriate analysis and weighting of impacts, and is inadequate to meet the goal of protecting fish and wildlife beneficial uses.

SCOPE

The scope of the amendments to the proposed Water Quality Control Plan is excessively narrow given the many water quality problems in the San Joaquin and the extent of their effects. The SED demonstrates the poverty of our water quality regulation framework – it is piecemeal and misses interactions and combined effects. The objectives examined in the SED represent only a piece of the larger picture – many factors that will determine success or failure are left out of the analysis. As such, the SED does not adequately evaluate the alternatives and identifies a preferred alternative that is unlikely to meet the biological objectives.

The flow objectives address only the portion of the San Joaquin River located between its confluence with the Merced River and Vernalis, and in the three tributaries within that stretch. The proposed flow requirements apply only during the February to June period. The focus is only on the needs of migratory fish species. Critical and influential elements are thus excluded from this proposal and analysis. These include continuity with the Upper San Joaquin River, integration with the Delta, the needs of other species, and summer and fall flow requirements. Other planning processes and programs in the larger geographic area must also be considered.

The SED analysis relegates too many critical factors to the implementation phase, future Delta Plan phases, adaptive management, other regulatory bodies, and the Bay Delta Conservation Plan (BDCP) process without analyzing the contribution of these other activities to meeting the goals of the proposed action. Thus, there is insufficient information to determine whether the preferred alternative is the environmentally superior alternative. The proposed action (Appendix K) should be updated to include enough information for the public to evaluate the effectiveness of implementation plans.

Continuity with the Upper SJR

The San Joaquin River upstream of its confluence with the Merced River has been the subject of a restoration effort to repair the riparian habitat, restore flows to 60 miles of dry riverbed and return salmon to this stretch of river. The Lower San Joaquin River (LSJR) flow objectives should be coordinated with the Upper SJR so that whatever flow regimes are determined, they

provide continuity for the upstream restoration efforts. These requirements might have to be phased in gradually as the dewatered portions of the river are restored or can recover naturally.

Water users on the Upper SJR should be sharing in the reductions to withdrawals that will be requested of water interests on the LSJR and its tributaries. Minimal flows from the Upper SJR exacerbate deficiencies in the main stem and at Vernalis. State Board policy should be explicit that the next Water Quality Control Plan review will address a proportional flow component from the San Joaquin River above the Merced.

Integration with the Delta

Timing and volume of export pumping operations and conditions in the Stockton Deepwater Channel and elsewhere in the Delta will affect the fisheries benefits derived from LSJR flows, and should therefore be coordinated with this process. It is ultimately of no value to migratory species if additional flows mandated in the LSJR are routed to the pumps. A natural hydrology includes flows that reach Suisun Bay, San Francisco Bay and the ocean. You must integrate flow objectives in this portion of the SJR with modeling of export operations and resulting water exports from the Delta to provide the appropriate context for analysis.

Flow Requirements for Other Fish and Aquatic Species

Many other species besides salmon have seen drastic reductions in their numbers in the Delta. These include Delta smelt, longfin smelt, green sturgeon, and striped bass. The specific minimum flow requirements and timing for various species of concern, as recommended in the Bay Institute's 2011 workshop presentation, should be provided for when setting flow objectives.

Other Plans and Programs

The connection between this plan and other delta planning programs and projects is not clear and therefore does not provide any assurance that outcomes will satisfy environmental requirements to restore delta ecosystems. We need more information about how the flow regime will be used in the BDCP and delta restoration projects.

Climate Change

Furthermore, there is a need to analyze the inter- and intra-annual variability and likely climate change effects on runoff in the watershed and how much water can be reliably diverted for consumptive use after meeting ecosystem needs at these possible/predicted levels.

FLOW CRITERIA

There is broad scientific agreement that freshwater flows are a key physical and ecological driver in the Bay-Delta ecosystem and current flow conditions are insufficient to meet ecosystem needs. Low river flows impede fish passage, concentrate pollutants, raise water temperatures and decrease dissolved oxygen.

The SED analyzed four alternative flow levels: No Project, 20%, 40% and 60% of unimpaired flow. A goal of 35% of unimpaired flow (UIF) is chosen as the preferred alternative in the SED.

The SED goes on to describe the consequences of this, but nowhere is there a real justification, or a description of the tradeoffs made in arriving at the 35% figure. This is especially striking given the thoughtful justification for the 60% value needed to protect fish given in the State Board's 2010 Delta Flows Criteria Report.

We reject this choice of preferred alternative for multiple reasons.

- The 35% level of UIF is insufficient to achieve the stated goal of protecting fish and wildlife. It would result in a **reduction** of current flow levels in the Stanislaus River and would barely increase flows from their current level in the Merced and Tuolumne Rivers. There are numerous inadequacies in the analysis of presumed impacts of the LSJR Flow Alternatives 3 (40% of UIF) and 4 (60% of UIF) and the conclusions they lead to.
- There is a strong case for adopting a higher flow level than the SED preferred alternative. The 2005 Anadromous Fish Restoration Program report provides strong evidence to support an increase to more than 50% of unimpaired flows during the first six months of the year to provide a migratory corridor for salmonids. Accomplishing a wider range of flow functions requires approximately 60 percent. This includes a higher base flow and occasional high flows to sustain suitable channel conditions and habitat. Thus we believe that the Board should adopt year-round objectives coupled with performance metrics to measure and track variables that affect outcomes for these sensitive aquatic species.
- Summer and fall flows should also be sufficient to maintain fish and wildlife, water quality and recreational opportunities. Given potential reductions in flow due to drought and climate change, it is critically important for the Board to set minimum flows of at least 2,000 cfs at Vernalis year round.
- The SED needs to evaluate the USFWS proposed alternative from the 2005 *Anadromous Fish Restoration Program Report*. As a trustee agency, the recommendations of USFWS should not be ignored or dismissed.

Lower San Joaquin River Alternatives 3 (40%) and 4 (60%) were rejected primarily on the basis of their Significant and Unavoidable Impacts in the areas of "Water Supply, Surface Hydrology, and Water Quality", "Groundwater Resources", "Recreational Resources and Visual Quality", "Service Providers" and "Energy Resources and Climate Change". We disagree with the conclusions of these analyses as reflected in *Table 17-2. Impact Determinations by Alternative*.

<u>Water Supply, Surface Hydrology, and Water Quality</u>

LSJR Alternatives 3 and 4 are given Significant and Unavoidable Impacts (S) ratings. In fact, of the seven elements within this resource area, only the water supply element is detrimentally impacted. Agricultural and urban water suppliers on the SJR and its tributaries would be required to reduce their diversions. The six other elements analyzed in this area, relating to surface hydrology and water quality, received L-Less than Significant ratings. In fact the impacts in most of these areas would be <u>highly beneficial</u>: flow values would increase, salinity levels would decrease, and contaminant concentrations would decrease. These benefits must be weighted more heavily in the choice of preferred alternative than the single negative impact – they comprise the fundamental goal of the proposed changes to flow objectives!

Groundwater Resources, Energy Resources and Climate Change

LSJR Alternatives 3 and 4 are given Significant and Unavoidable Impacts (S) ratings. The SED assumes that farm and urban water consumption will remain unchanged, with any lessening of surface water diversions made up for by pumping, or over-pumping, groundwater. We do not accept that this as an unavoidable consequence. On the contrary, agricultural and urban users have not yet maximized their water savings through conservation, efficiency and alternative supply strategies. Groundwater resources can and must be better monitored and managed to ensure that withdrawals do not exceed basin capacity.

The SED should identify groundwater overdrafting as problematic, and cite potential strategies that agricultural and urban users and the Board could implement to prevent detrimental impacts to groundwater. These could include a range of agricultural and urban water conservation and efficiency measures, crop substitution and fallowing, increased use of recycled process water and wastewater for irrigation, pricing incentives, and other alternative strategies. Urban suppliers in the project area are likely to be considering such measures already as a result of SB 7's targeted 20% reduction in per capita water use by 2020.

The Significant and Unavoidable Energy Resources and Climate Change impacts identified under Alternatives 3 and 4 in the SED are also a direct result of the assumed groundwater pumping increase to replace all surface water supplies lost to instream flows. The strategies enumerated as alternatives above would serve to minimize or avoid these impacts as well.

Recreational Resources and Visual Quality

The only identified Significant and Unavoidable Impact of LSJR Alternatives 3 and 4 is an assumed detriment to low-flow recreation opportunities, such as swimming and wading. The higher-flows time period under consideration is February to June, when such forms of recreation are not as likely to be occurring. We question the analysis and conclusion that there would be significant impacts to recreational resources.

Service Providers

The Significant and Unavoidable Impact of LSJR Alternatives 3 and 4 in this area derives from the alleged need to construct new water treatment facilities and supply infrastructure to compensate for the loss of surface water diversions. As discussed above under Groundwater Resources, this premise is debatable. There is a suite of options available to urban and agricultural service providers that do not involve new or expanded groundwater pumping and treatment infrastructure. The assumed costs associated with such projects could also be reduced or avoided.

Aquatic Resources

The higher flow alternatives LSJR 3 and 4 not only have Less than Significant negative impacts, they would provide major benefits compared to baseline conditions in many of the 13 sub-areas analyzed. These benefits, if properly weighted would certainly result in the choice of Alternative 3 or 4 as the preferred alternative.

Increased flows will be helpful in mitigating a range of water quality factors, such as salinity, water temperature, nitrates, pesticides and other toxics, and dissolved oxygen content. Adhering more closely to a natural flow regime will provide the variability to which native species are adapted. That variability needs to co-occur with other aspects of suitable habitat—for example, restored floodplain along the lower San Joaquin River. With a flow regime that covers a range of geomorphological and biological functions, coupled with measures to address stressors such as contaminants, there will be much greater chances for success.

Adaptive Management

Once higher baseline flows are set, agencies can use adaptive management to attain bio-criteria beyond salinity measures, such as the doubling of Chinook salmon and successful spawning of splittail and sturgeon[1], and other specific, measurable performance objectives such as temperature, oxygen content, chemical pollutants, and nitrates. Adaptive management should use tools such as tributary-specific minimal critical flows, flow targets, timing of flows, and rate of change of flows, with the possibility to increase flows to 60% of unimpaired flows if needed to address Delta habitat issues. For this reason, the narrative objectives in the SED are inadequate.

Conclusion

We maintain that the extremely narrow scope of the proposed changes to the Water Quality Control Plan and its supporting SED has resulted in a process which cannot achieve its intended goal of protecting fish and wildlife resources. We have also identified serious shortcomings in the assumptions, analyses and conclusions which led to the choice of 35% of unimpaired flow as the preferred alternative for the San Joaquin River and its Merced, Tuolumne and Stanislaus River tributaries. In order to arrive at a robust and defensible proposal for flows on these rivers we request the Water Board broaden the scope of its proposal, revise the impact analyses in its SED to incorporate our suggestions, and choose an environmentally superior 60% flow objective as the preferred alternative.

Flow requirements that function for public trust resources and protection of beneficial uses such as migratory corridors should be the parameters for proposed actions under BDCP, San Joaquin River flows, and other projects. While many costs to agriculture and other water users can be mitigated and over time can be expected to diminish, the opposite is the case for water-dependent in-stream uses shorted water. The risk of conflicting with other water uses will only increase in the future, therefore starting with higher flows—or securing that option if needed in the future—makes sense.

All users of water resources will have to share equally in the sacrifices needed to survive. We are putting pressure on our urban water agencies (including SFPUC and the Santa Clara Valley Water District) to reduce withdrawals, cut waste, conserve and reuse, and look to local resources for water. We are fighting to keep our state's water safe for all essential uses such as water efficient farming, and away from wasteful and damaging uses that threaten us all equally.

[1] Workshop presentation, San Joaquin River Flows and Southern Delta Water Quality to State Water Control Resources Control Board. The Bay Institute. June 6, 2011

There will be no new water. Climate change is likely to reduce further the amount of water that is available today. What distinguishes us as humans is that we have the intelligence, tools and wherewithal to foresee these changes and adapt to them. Other species do not. We have the obligation to ensure that, in securing our water future, we also provide a future for the habitats that nurture us and the magnificent creatures with whom we share those habitats.

Again, thank you for the opportunity to comment on the SED document.

Sincerely,

Director
Sierra Club California