

Bay-Delta Plan Update for the Lower San Joaquin River and Southern Delta (release date July 6, 2018)
 Technical Comments on Appendix K - Revised Water Quality Control Plan
 Bureau of Reclamation

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1	4, 26, 46	The Board states that it will assign some measure of responsibility to water right holders, yet throughout the proposed changes to the Bay-Delta Plan the Board continues to rely on releases from storage to meet objectives.
2	15 (Table 2), 43	Regarding a salinity objective that “applies throughout the southern Delta,” it will be very difficult to operate to an entire stretch of river for compliance as opposed to a single compliance point. Vernalis to Brandt Bridge is approximately 14 miles, Middle River from Old River to Victoria Canal is roughly 8 miles, and Old River/Grant Line from Head of Old River to West Canal is about 12 miles. Monitoring along that entire stretch is not practical; therefore, how will the board determine compliance?
3	18 (Table 3)	The Board prescribes a minimum base flow of 1,000 cfs with an allowed adaptive management range between 800 – 1,200 cfs at Vernalis at all times during February through June. Requiring a minimum base flow with no tie to the basin hydrology does not seem prudent. What would be the source of base flows if unimpaired inflow were less than 800 cfs? “Flows provided to meet these numeric objectives shall be managed in a manner to avoid causing significant adverse impacts to fish and wildlife beneficial uses at other times of the year.” It will be very difficult to avoid impacts to fish and wildlife beneficial uses by releasing a percentage of unimpaired flow before understanding how the hydrology will shape up for the water year. As is frequently the case in California, most of the precipitation can occur during just a few major storms over a relatively short period of time during the winter and spring. There may be several instances where large quantities of unimpaired inflow are released in early storms with no chance of recovery, flows that would have been stored absent unimpaired flow requirements, leading to fishery impacts later in the year if storage is low.
4	20	The premise for unimpaired flow operations is managing to a 7-day running inflow average. “Compliance with the percent of unimpaired flow from February through June in each river is determined by dividing the 7-day average observed flow at the compliance stations by the 7-day average calculated Full-Natural-Flow (FNF) at the FNF stations.” This operation is not feasible based on several issues including the need to conduct power scheduling, data availability and quality, coordination with other operations (both on the San Joaquin and at other CVP facilities such as Delta export facilities and upstream reservoirs on the American and Sacramento), downstream impact protection, and public notification. Further, Reclamation is concerned that the increased frequency of operational changes may impact CVP facilities and infrastructure, potentially leading to more frequent outages and unscheduled maintenance, including equipment/facility failures. The Board should work with Reclamation to identify feasible implementation strategies that take into account all operational parameters.
5	28	The Board suggests that “significant” adverse effects on other beneficial uses will be avoided by implementing certain requirements along with the flow objectives, such as minimum reservoir carryover storage targets. Reclamation has identified potentially significant impacts on reservoir storage at New Melones from implementing the Board’s unimpaired flow objective that need to be addressed. Such an impact to storage would undermine water supply reliability and other federal purposes for which Congress authorized the CVP. The Board’s technical analysis relied on a spreadsheet decision support tool with unsubstantiated modeling assumptions, such as a minimum carryover storage target of 700 thousand acre-feet (TAF) at New Melones. Reclamation’s preliminary analysis using the established and

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		accepted CalSim-II modeling framework shows an average reduction in storage at New Melones of 315 TAF per year with a 40 percent unimpaired flow objective compared to current operations. The Board’s assumption that a 700 TAF carryover storage target matches historical New Melones operations is false. In fact, New Melones went to dead pool (i.e., approximately 80 TAF) in 1992 to meet demands, and most recently in 2014-2015 the reservoir would have gone to dead pool if not for the actions of senior water right holders. The reservoir was consistently at or below 700 TAF of storage during the droughts of the 1990s (1989-1995) and 2000s (2014-2016).
6	32	There are several references to adaptive implementation of the flow standards put forth in the Final SED, with an extraordinary amount of deference offered to the Board’s Executive Director to administer this adaptive implementation program on a year-to-year basis. Several questions remain outstanding regarding implementation. One of many to emphasize is the involvement of the yet to be established Stanislaus, Tuolumne, and Merced (STM) Working Group. The stated purpose of the STM is “to assist with the implementation, monitoring and effectiveness assessment of the February through June LSJR flow requirements” from “entities who have expertise in LSJR, Stanislaus, Tuolumne, and Merced Rivers fisheries management, hydrology, operations, and monitoring and assessment needs.” Reclamation is not included in the list of participating entities in the STM. As written, a State organized workgroup and a State appointed official would have ultimate authority over releases from a Federal facility that is integrated with several other Federal facilities as part of the CVP. This is an unacceptable outcome for Reclamation. The Board should meet with Reclamation to discuss the adaptive implementation of LSJR flow requirements prior to adopting the SED.
7	33	As part of adaptive implementation, proposed annual operations plans must be submitted to the Board by January 10 of each year. Reclamation believes January 10 is much too early in the water year to develop a useful operations plan. Based on San Joaquin 5-Station Precipitation Index historic averages, less than 1/3 of the water year’s typical precipitation falls prior to this date, leaving a large amount of uncertainty in projected hydrology and operations that would not provide an adequate basis for meaningful decisions on adaptive management for the upcoming year. The Board should meet with Reclamation to discuss the adaptive implementation of LSJR flow requirements prior to adopting the SED.
8	41-42	The terms and conditions imposed by D-1641 are based on the 1999 Bay-Delta Plan and on former salinity objectives. As the basis of these terms and conditions is being changed by the Board, it is beyond the authority of the Board to maintain terms and conditions in water rights that implement outdated salinity objectives. In 2011, Reclamation submitted a “Special Study: Evaluation of Dilution Flow to Meet Interior South Delta Water Quality Objectives,” which presented the technical analysis of assimilative capacity in the South Delta as being approximately 50 mmhos/cm between Vernalis and South Delta reaches. This directly contradicts any assertion by the Board that such a low objective at Vernalis is required to implement the revised salinity objectives. The Board has determined that 1.0 EC is sufficient for agricultural beneficial uses year-round; why is there a requirement that Reclamation operate to a Vernalis EC level of 0.7 from April through August?

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9	42	The analysis underlying D-1641 assumed that agricultural barriers alone would be the implementation method for meeting interior Southern Delta salinity objectives after June. Since no new analysis has been presented to demonstrate that DWR or Reclamation has a responsibility beyond what is meet with agricultural barriers, Reclamation assumes that any water right changes related to changed salinity objectives would not require flow releases past June.