

October 27, 2014

Melissa Harris
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Sent via U.S. Mail and via email to sha-mpr-usjrbsi@usbr.gov

RE: Comments on the Upper San Joaquin River Basin Storage Investigation Draft Environmental Impact Statement

Ms. Harris:

American Rivers is a national non-profit organization working to protect and restore rivers and streams for the benefit of people, fish, and wildlife. Since 1973, American Rivers has helped protect and restore more than 150,000 miles of rivers through advocacy, science, and on-the-ground projects with local partners. On behalf of our 200,000 members in California and across the nation, we appreciate this opportunity to comment on the Draft Environmental Impact Statement (“DEIS”) for the Upper San Joaquin River Basin Storage Project (“Project”). This proposal has the potential to significantly impact the health of the San Joaquin River and the human and aquatic communities that it sustains. We have raised a wide range of specific concerns in a comment letter we jointly submitted with the Natural Resources Defense Council. This letter addresses some of those concerns in further detail.

The DEIS describes possible benefits and impacts of increasing water storage through a proposed dam and reservoir on the upper San Joaquin River, about 25 miles northeast of Fresno in California’s Central Valley. We are writing you to express our concerns with specific aspects of the U.S. Bureau of Reclamation (“Bureau”) DEIS of the proposed Temperance Flat Dam (TFD) and associated alterations to the Central Valley water supply regime. As detailed in the DEIS, the Project would result in significant environmental impacts, while producing insignificant amounts of available, additional water at the cost billions of dollars to state and federal taxpayers.

I. Water Capacity and Yield

Although the TFD could store up to 1.33 MAF of water, its average annual yield is a meager 61,000-94,000 acre-feet of water (depending on the water year and operational scenario). The annual yield from this new dam is relatively low because eight large dams and reservoirs already capture and divert most of the flow of the San Joaquin River, which historically dries up west of Fresno. Computer models show that the TFD operated to provide court-mandated flows to restore salmon in the lower San Joaquin River would only store a relatively minor amount of water one year out of three.

While the Project is largely intended to enhance the availability of water for Central Valley agricultural irrigation, it is also intended to provide improvements to the “water supply reliability and system operational flexibility” for municipal and industrial purposes. (DEIS @ ES-9). The DEIS avoids any

detailed analysis or description of this M&I component, and instead “tiers off” out-of-date and highly generalized reports produced by California Department of Water Resources (“DWR”). (see, e.g., DEIS at 1-10, citing to the 2009 DWR “*California State Water Plan, Update.*”) In adopting this approach, the Bureau has failed the NEPA process on at least two levels. First, the Bureau, in failing to conduct its own analysis, relies on faulty assumptions and inapposite analyses. A more accurate, up to date, and particularized analysis of urban M&I demand will not support a justification for this project. Second, by failing to consider the achievable impacts of M&I conservation and reuse on urban water needs, the Bureau has unlawfully neglected to include in the DEIS a viable alternative to an Upper San Joaquin Storage Project.

II. The Bureau’s Assumption of Urban M&I Needs Is Flawed

To support the Project’s objective of improving urban M&I supplies, the DEIS relies wholly on external documents, including the *Draft Feasibility Report* (“Feasibility Report”), a Bureau document that in turn largely relies on additional external research and analyses. These twice-removed documents include 2005 and 2008 iterations of the *California Water Plan* and the Bureau’s March 2008 *Water Supply and Yield Analysis*. See, e.g., Feasibility Report at 2-2, 2-3. At a minimum, the analysis and calculations that inform these external documents are six years old and predate both changes in California law and policy and evolutions in urban water use over the past decade.

The DEIS states that the Project water will increase urban M&I supply by 25,000 AF, delivered for uptake by State Water Project (“SWP”) contractors at the Mendota Pool. DEIS, Table 2-10. The Bureau then hypothesizes that any additional supply created by the Project is needed to partially fill an estimated 4.9 – 6.1 MAF gap between an ever increasing urban M&I demand and available developed water supply in California. See Feasibility Report @ 2-3. Obviously, 25,000 AF is a relatively insignificant amount relative to the purported urban water M&I demand gap.

The DEIS urban demand calculations are considerably dated, deeply flawed, and likely not representative of more recent, and more accurate urban demand projections. First, none of the documents relied upon by the Bureau take into consideration the 20% reduction in urban water demand that Senate Bill X7-7, the Water Conservation Act of 2009, require California urban water providers to achieve by 2020. Second, these documents do not reflect actual supply and demand trends among the Southern California water providers who would make up the bulk of the SWP Contractors expected to require Project water. Both the Water Supply and Yield Analysis rely on the inaccurate assumption that increases in population in urban areas drives increased water consumption. In fact, despite population growth, the total volume of water provided by Southern California water agencies has *decreased* or remained stable. Metropolitan Water District (MWD), the largest urban water provider in the state, and most significant of the SWP contractors, reports that water demand rates have increased at a level well below population growth rates. See Metropolitan Water District, Regional Progress Report, Feb. 2014.¹ As far back as 2011, the Inland Empire Utilities Agency reported declining total water demand, despite an increased local service population. This trend has continued in recent years. See IEUA, Urban Water Management Plan 2010 at 3-1 to 3-3; IEUA, 2014 Annual Report.² These two examples reflect emerging trends in urban water demand as increasingly effective conservation and reuse programs and passive conservation

¹ http://www.mwdh2o.com/mwdh2o/pages/yourwater/SB60/archive/SB60_2014.pdf

² http://www.ieua.org/news_reports/docs/2011/UWMP/Final/Chapter%203%20-%20Water%20Demand%20and%20Supply.pdf and http://www.ieua.org/news_reports/docs/reports/2014_Annual_Report.pdf

trends combine to reduce overall growth in urban water demand. The DEIS, by failing to account for these trends, arbitrarily and incorrectly estimates demand for urban M&I supplies created by the Project.

Regardless of any inaccuracies in demand projection, the DEIS fails to offer any support that Southern California water contractors actually need additional water as supplied by the Project. In concert with changing supply trends and evolving economic drivers, Southern California SWP contractors are increasing their reliance on local water sources. MWD, for example, is planning to reduce its SWP imports by 11%, and increase reliance on conservation and recycling by 26% as part its planned 2035 supply portfolio.³ Any forecast for use of Project water must account for diminished urban reliance on SWP water throughout the Project lifetime. The DEIS also needs to account for the impact of such changes of SWP contractor water priorities on the affordability of the Project.

Along similar lines, the DEIS is flawed because it fails to demonstrate that SWP contractors will find Project water to be an economically viable source of supply. As the DEIS notes, water providers in the State conjunctively manage a portfolio of available surface water, groundwater, and recycled water sources. DEIS @ 2-12. The Draft Feasibility Report estimates that water from the Project will be available for the SWP M&I “customers” at an annual cost of \$1305/AF. Feasibility Report at 6-26. This amount compares poorly with the “cost” of water supply gained through urban water conservation and reuse and groundwater replenishment. Again using MWD figures, in FY2013/14, the District’s conservation programs made available 1.43MAF at a cost of \$47.3 million.⁴ Because the DEIS relies on generalized analyses contained in external documents, it fails to provide adequate support for its assumption that an actual customer base exists for the incremental M&I supply created by the Project. The economic feasibility of the Project is significantly affected by the degree to which the SWP contractors participate, or fail to participate, in purchases of Project water for M&I supply purposes.

III. The DEIS Fails to Adequately Analyze M&I Conservation and Reuse as Attainable Sources of Water Supply

The additional 25,000 AF / yr that the Project will make available for M&I purposes is a relatively insignificant amount of water in the scale of California urban water use. As indicated above, MWD “delivered” nearly five times that amount in one year through additional water conservation, reuse, and groundwater augmentation measures. The failure of the Bureau to analyze the likely efficacy of additional urban demand management reductions *across the entire SWP contractor pool*, is a fundamental flaw in the DEIS. Moreover, this failure to prioritize conservation as a source of supply is out of step with Bureau practice, other indicators of Federal agency practices, and best practices across the water supply industry sector.

To place conservation in the context of Bureau operations, it is highly notable that urban conservation measures play a fundamental role in the Bureau’s efforts to close the projected 4.9 MAF/yr gap between demand and supply in the Colorado River Basin. Given the conjunctive role that SWP and Colorado River water play in Southern California water supply portfolios, there is compelling rationale for the Bureau to equally stress conservation in its review of California storage and diversion projects.

This prioritization of conservation as a source of water supply is a hallmark of storage project review in EPA Region 4 which reviews reservoir proposals in Alabama, Florida, Georgia, Kentucky, Mississippi,

³ 2014 Annual Report at 6. http://www.mwdh2o.com/mwdh2o/pages/yourwater/SB60/archive/SB60_2014.pdf

⁴ 2014 Annual Report at 8.

North Carolina, South Carolina, Tennessee. In its role of approving Clean Water Act Section 404 permits and Section 401 water quality certifications, Region 4 has adopted and applied Water Efficiency Guidelines (WEGs) based around a set of conservation principles.⁵ Project applicants must demonstrate that they have first considered and applied conservation measures that reflect these principles prior to proposing new storage or diversion projects. While the WEGs apply specifically to urban water supply proposals, the principles that inform them are equally applicable to agricultural supply projects, or commingled projects, such as Temperance Flat. There is no evidence that the Bureau independently considered these principles, or similar water efficiency guidelines in its review of either the Project itself or the external analyses that informed the Feasibility Report. Had the Bureau done so, water conservation, efficiency, and reuse would have been properly highlighted as the highest priority source of additional M&I supply, with the additional capacity created by the Project providing a supplemental supply if needed. It is considerably likely that, by applying the conservation measures required under the WEGs, the SWP contractors would be able to affordably “deliver” 25,000 AF/yr of urban water supply.

Finally, the NEPA process compels federal agencies to demand information of “high quality” and professional integrity. 40 CFR 1500.1, 1502.24. In the context of urban water supply, this standard is arguably met by the industry best practices reflected in American Water Works Association (AWWA) standards. These peer-reviewed standards reflect “*minimum* requirements for materials, equipment and practices used in water treatment and supply.”⁶ Among the AWWA standards, the M36 Water Audits and Loss Control Programs, M52 Water Conservation Programs and G480-13 Water Conservation Program Operation and Management are specifically intended to establish best practices for urban water conservation, reuse, and loss control. The specific control measures and programs enshrined in these best practices have been proven to effectively reduce urban water loss, waste and consumption. They have been adopted by water utilities around the country to guide conservation programs and manage urban water demand. Continued and expanded implementation of these standards has tremendous potential to deliver future water savings. While the DEIS adopts some water conservation findings from the State Water Plan and the *Water Supply and Yield Analysis*, the Bureau has failed to consider whether the SWP Contractors have sufficiently adopted these standards and implemented the associated best practices to reduce M&I demand. This omission is particularly glaring in light of the small annual M&I volume increment cited as a primary objective of the Project.

IV. Cost & Economics

The Bureau currently estimates that the TFD could cost up to \$2.6 billion to build, with annual operating costs of nearly \$129 million. This price tag does not include environmental mitigation costs. The estimated construction cost has decreased from \$3.36 billion since 2008. By comparison, the proposed TFD is similar in height to the proposed Auburn Dam on the American River, which the Bureau estimated in 2006 would cost at least \$5 billion to construct. Even when the less costly roller-compacted concrete design for the TFD is taken into account, the new cost estimate is suspect. The benefit-cost analysis uses annual costs and benefits. It annualizes capital costs over 100 years with a 3.75% discount rate. That is a very generous assumption, and it understates the annual costs. An economic analysis of the draft Feasibility Report for the Temperance Flat Dam found that the Bureau has “extremely exaggerated” the ecosystem and emergency water supply benefits of the proposed dam in order to

⁵ Available at http://www.epa.gov/region4/water/wetlands/documents/guidelineso_wate_efficienc_measures.pdf

⁶ See <http://www.awwa.org/publications/standards.aspx>, emphasis added.

provide it a positive cost-benefit ratio. In fact, the cost of the dam far outweighs its benefits. (*See generally*, Upper San Joaquin River Basin Storage Investigation Draft Feasibility Report, January 2014, U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region)

V. Benefits

Depending on the which of the five alternative operating plans is chosen by the Bureau and a number of other variables, the TFD provides a modicum of water for agricultural and municipal consumption, as well as some reserved storage to provide emergency water supplies in case of a catastrophic disruption in Delta water exports. Under all scenarios, the TFD's water supply benefits are less than the cost of providing those benefits, even though the Bureau overstates the value of agricultural water supply benefits by a factor of 2-3. Alleged salmon enhancement benefits account for 49% or \$1.3 billion of the project cost. The Bureau attempts to quantify salmon benefits by using an "especially uncertain" measurement of salmon smolt to adult return rate. And its own analysis shows that under at least two of its five action plan alternatives, the TFD will negatively impact salmon. Given the Bureau's relative uncertainty, it's reasonable to assume that at best the dam may produce a speculative 2.8% increase in salmon at great cost to the taxpayers. (*See generally*, Upper San Joaquin River Basin Storage Investigation Draft Environmental Impact Statement, August 2014, U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region.)

VI. Environmental/Cultural Impacts and the San Joaquin River Gorge

The Bureau admits that the TFD will have long-term unavoidable adverse impacts on riverine habitat, botanical resources and wetlands, wildlife and wildlife habitat, cultural resources, and scenery. Up to 5,000 acres of public land would be flooded by the dam, adversely impacting 24 sensitive, threatened, or endangered wildlife species. The reservoir will also drown several miles of trails popular for public recreation and used for Native American cultural interpretation and outdoor education in the scenic San Joaquin River Gorge. The segment of the San Joaquin River Gorge threatened by the dam was recommended for National Wild & Scenic River protection by the Bureau of Land Management (BLM) in recognition of the river's outstanding scenic, recreational, and historical/cultural values. (*See generally*, Bakersfield Proposed Resource Management Plan & Final Environmental Impact Statement, Volume 1, August 2012)

VII. Power Loss

The proposed 665-foot high dam will flood two existing PG&E hydroelectric power plants with a combined generating capacity of up to 195 megawatts. Since the new dam will generate less power from its proposed 160-megawatt plan than PG&E's existing powerhouses, the TFD could possibly be a net energy loser. The Bureau identifies this as a long-term unavoidable adverse impact.

VIII. Climate Change Impacts

The potential for and magnitude of climate change impacts on TFD performance is uncertain. Water supply reliability and demands are widely variable. Future water system operations are subject to change and difficult to predict. Predicting salmon survival is difficult due to limited data and many other influencing factors. Models used to predict salmon habitat improvements for this project contain assumptions with varying levels of uncertainty.

Cost estimates are based on material and unit costs with varying uncertainties. Nonfederal partners and other beneficiaries willing to pay for their share of the TFD costs have not yet been identified.

Consultation is ongoing with Native American tribes in regard to cultural resources that will be adversely impacted. Details about potential offsite mitigation opportunities for biological impacts loss of existing power generation are not yet available. Coordination with the BLM and the Dept. of Interior about BLM's Wild & Scenic recommendation for the San Joaquin River Gorge is needed. Additionally, the Bureau may have to amend its existing water rights to build the TFD and operate it in conjunction with the Central Valley Project and State Water Project.

IX. Conclusion

The DEIS and Feasibility Study clearly indicate that Temperance Flat Dam is not a good investment of resources for California and the U.S. TFD would provide an insignificant amount of water at great cost and cause environmental impacts that are impossible to mitigate. More importantly, however, the opportunity cost of this project is unacceptable. At a time when California is in the 4th year of one of the worst droughts in our history, we cannot afford to invest in projects that do not offer a meaningful return even under demonstrably unrealistically optimistic assumptions, such as those that are found throughout the DEIS. We urge the Bureau to take a harder look at the project justification, the economic and environmental impacts, and the purported benefits of this Project. Doing so will demonstrate the Bureau's leadership role in fashioning effective solutions to California's long-term water challenges.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Steve Rotherth".

Steve Rotherth
California Director