April 9, 2014

Via electronic and first-class mail

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Re: Conservation Groups' Comments on CCSF Draft Socioeconomics Report for FERC Relicensing of Don Pedro Dam

Dear Ms. Levin:

Thank you for the opportunity to comment on the draft report: "Socioeconomic Impacts of Water Shortages within the Hetch Hetchy Regional Water System Service Area" (Report). The Tuolumne River Trust, American Rivers, American Whitewater, California Sportfishing Protection Alliance, California Trout, Friends of the River, and Central Sierra Environmental Resource Center have identified several concerns that we request be addressed prior to the Report being finalized and filed with the Federal Energy Regulatory Commission (FERC). Our primary concern is that the study should not be presented or interpreted as a complete benefit-cost analysis.

1. The Report Is Not a Complete Benefit-Cost Analysis.

The Report uses a benefit-cost analysis that omits significant benefits, such as fish and wildlife resources and ecosystem services. This is a departure from professional standards for preparing economic analyses, including principles stated in the Office of Management and Budget's (OMB) Circular A-4,[1] which provides guidance to federal agencies regarding regulatory analysis:

> A good regulatory analysis should include . . . an evaluation of the benefits and costs—quantitative and qualitative—of the proposed action and the main alternatives identified by the analysis . . . . If you are not able to quantify the effects, you should present any relevant quantitative information along with a description of the unquantified effects, such as ecological gains, improvements in quality of life, and aesthetic beauty.

Recommendation: The Report should clarify that it is not a complete benefit-cost analysis and should state the limited scope of analysis.

[1] *Available at*: http://www.whitehouse.gov/omb/circulars_a004_a-4

2. The Report Should Differentiate Between the SFPUC's Regional Water System and Water Supply from the Tuolumne River.

The Report addresses potential socioeconomic impacts in the San Francisco Public Utilities Commission's (SFPUC) Regional Water System (RWS) service area. It should be noted that on average, 85% of SFPUC water comes from the Tuolumne River and 15% from local Bay Area sources. Since the FERC relicensing of Don Pedro Dam will only affect the Tuolumne River portion of the RWS, the Study should make it clear that 15% of the RWS supply will be unaffected by FERC's licensing decision.

It might be argued that in dry years approximately 93% of RWS supply is derived from the Tuolumne River. However, we believe this creates a political problem for the SFPUC, because the Raker Act of 1913, which granted the City and County of San Francisco (CCSF) the right to build and operate the Hetch Hetchy Water System, prohibits CCSF from selling Tuolumne River water to private companies. The SFPUC's largest wholesale customer is the California Water Service Company (Cal Water), a private company that purchases about 15% of the RWS supply. The SFPUC has made the case that this 15% comes from Bay Area sources. Even though local water is in short supply during dry years, we interpret the Raker Act to prohibit the SFPUC's sale of Tuolumne River water to Cal Water at any time.

Recommendation: The Report should be revised to clarify that 15% of the RWS water supply will not be affected by the FERC relicensing process. Because this document will be submitted as part of the FERC record, the figures should be adjusted to reflect only the potential impacts of the FERC ruling on the CCSF and its wholesale customers. Furthermore, the Report should clarify how potential Raker Act violations are avoided during dry years.

3. Normalizing Water Use in 2010/11 Does Not Analyze Several Key Factors Leading to Reduced Water Use.

The Report asserts that poor economic conditions and favorable weather depressed water use in 2010/11, making demand appear artificially low. It states, "[d]emand in the RWS service territory as a whole declined by approximately the same as CCSF, 11.8%, in FY2010-11 relative to the pre-recession levels." Report at 28. Table 3.4 shows actual demand on the RWS supply as 220 mgd, and normalized demand as 237 mgd.

The Report does not acknowledge that demand has remained relatively flat since 2010, despite a robust economic recovery and unfavorable weather conditions. Furthermore, in January 2014 the SFPUC called for a 10% voluntary reduction in water use throughout the RWS. Consumers responded by cutting use by 18%, demonstrating that continued improvements in water use efficiency are possible with minimal hardship.

These facts suggests that other factors, in addition to weather and economic conditions, played a large role in reducing water demand.

We believe a major driver in water use reduction was, and continues to be, the increasing cost of SFPUC water to pay for the $4.6 billion Water System Improvement Program (WSIP). Prices have doubled since the WSIP was approved in 2008, incentivizing water use efficiency and alternative water sources. The price of SFPUC water is expected to increase again by more than 50% by 2020,[2] which we expect will further incentivize conservation and alternative sources.

In 2008, the SFPUC committed to reducing retail demand (in San Francisco) on the RWS by 10 mgd by 2018. To accomplish this, funding for water conservation, water recycling, and groundwater programs were increased substantially. The SFPUC also required its wholesale customers to reduce demand by another 10 mgd, and those agencies responded by ramping up their water conservation programs.

In 2009 the State Legislature enacted Senate Bill (SB) 7x7, the Water Conservation Act, which requires a 20% reduction in urban water use by 2020. Water agencies in the RWS service area responded by outlining their strategies to comply with the Act in their 2010 Urban Water Management Plans (UWMPs). We expect the water use reduction benefits of SB 7x7 will be seen for several years as new programs and policies are implemented.

Recommendation: The final Report should acknowledge other factors that reduced water use in 2010/11 and in subsequent years, and should adjust the normalization figure accordingly. If the 2010/11 figure is not adjusted, the Report should explain why demand has remained flat in recent years despite the economic rebound and unfavorable weather conditions.

4. The Report Appears to Confuse 2010/11 Normalized Water Use with Available Supply.

After the WSIP was approved in 2008, the SFPUC asserted it could provide 265 mgd to its retail and wholesale customers in normal water years. This figure might be adjusted slightly downward due to recent requirements that instream flows in Alameda and San Mateo Creeks be increased by 7.4 mgd. We believe it reasonable to assume the SFPUC can now provide 258 mgd on a regular basis.

Table ES-1 shows that a 10% reduction in RWS supply in 2010/11 would be 23.7 mgd. However, 23.7 mgd is 10% of 237 mgd, which is the "normalized" demand the Report assigned to 2010/11, not 10% of available water (258 mgd). Subtracting 25.8 mgd (10% of 258 mgd) from 258 mgd (amount of available water) results in about 232

[2] "Overall, water rates for CCSF and the Wholesale Customers are projected to increase by an average of 83% between FY2010-11 and FY2035-56." Report at 33.

mgd. Using the 237 mgd normalized figure for 2010/11, a 10% shortfall would have resulted in a deficit of only 5 mgd, not 23.7 as listed in the table. The actual use of 220 mgd was well below the 232 mgd available after a 10% reduction in supply.

Table 4-5 also uses the inaccurate 2010 normalized water demand figure of 236.78 as "Supply Available," and should be corrected.

Recommendation: The final Report should base projected reductions on actual water supply, not the 2010/11 normalized figure.

5. Water Agencies Have a History of Overestimating Demand Projections.

Prior to approval of the WSIP in 2008, the SFPUC projected that water demand on the RWS would reach 285 mgd by 2018. In response to strong opposition from conservation organizations, the SFPUC agreed to cap water sales at 265 mgd until at least 2018. Currently the RWS distributes less than 225 mgd, and demand is projected to remain well below the 265 mgd cap in 2018.

The Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the SFPUC's 26 wholesale customers, is currently updating its demand projections, and the new estimates are expected to be available in June. Information from the BAWSCA member agencies' UWMPs suggest that the new projections will be much lower than previously anticipated.

Recommendation: The final Report should reflect more realistic demand projections based on historical decreases in water use as well as recent trends in water use efficiency.

6. Water Demand Projections Should Reflect Realistic Future Economic Conditions.

The Report treats the recent recession as an anomaly. It projects future water demand as if the economy will continue to grow at a consistent pace. We believe this assumption is contrary to other economic predictions.[3]

Recommendation: The final Report should use the best information available to predict future economic ups and downs, and adjust water demand projections accordingly.

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[3] *See, e.g.*, Frank Partnoy & Jesse Eisinger, "What's Inside America's Banks," THE ATLANTIC, January/February 2013, *available at* http://www.theatlantic.com/magazine/archive/2013/01/whats-inside-americas-banks/309196.

7. The Report Does Not Differentiate Between Water Supply and Instream Flows.

The Report focuses on the potential economic impacts of reduced water supplies on areas served by the RWS. This is different than the potential economic impacts of increased instream flows in the Tuolumne River, which is what FERC will determine. The two have a limited correlation. In many years there is "excess" water in the system (more water than is used for human purposes and to meet existing instream flow requirements), enabling excess water to be captured for future years. The SFPUC currently has over one million acre-feet of water in storage – enough to meet the needs of its customers for four years. In many cases an improved flow schedule would have a limited impact on water supply.

Recommendation: The final Report should include additional information to evaluate the potential impact of increasing instream flows in the Tuolumne River. It should look at past hydrological conditions and water use to estimate how often, and by how much, CCSF and its customers might expect to face water shortages under various new instream flow requirements.

8. The Report Does Not Consider Alternative Responses to Reductions in Water Supply.

The Report presents a worst-case scenario of economic losses resulting from reduced water supply from the RWS. It does not analyze likely responses to potential changes arising from increased instream flows in the Tuolumne River. Rather than remain passive, we believe water utilities and consumers will conserve and identify other sources in order to protect their interests.

By 2020 RWS water is projected to cost about $2,000 per acre-foot. Compared to this price, many alternative sources will be very appealing. For example, the WaterFX solar thermal desalination plant operated by the Panoche Water and Drainage District in the Central Valley produces fresh water at a cost of $450 per acre-foot.[4]

BAWSCA is currently negotiating a dry year water transfer with EBMUD at a cost of $275 per acre-foot.

Residents and businesses are already conserving water to save money. This is a positive economic benefit that should be incorporated into the Report. Efficiency enables businesses to deliver more products and services at reduced cost, freeing up economic resources for other uses. Efficiency can be an economic stimulus.

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[4] *See* Kevin Fagan, "California Drought: Solar desalination plant shows promise," SF GATE, Mar. 18, 2014, *available at*: http://www.sfgate.com/science/article/California-drought-Solar-desalination-plant-5326024.php.

Landscape irrigation efficiency is the low-hanging fruit in the RWS service area, and converting water-intensive landscapes to drought-tolerant gardens has never been easier. BAWSCA sponsors free water efficient landscape classes, and their "Lawn Be Gone Program" offers 75 cents per square foot for lawn conversions. RWS customers in Santa Clara County can take advantage of the Santa Clara Valley Water District's Landscape Rebate Program, which offers $1 per square foot for conversions. The District also offers very generous irrigation hardware rebates.[5] The City of Palo Alto Utilities provides the greatest incentive for turf conversion, offering $2 per square foot as well as other irrigation rebates.

The following are a few examples of entities in the RWS service area that have reduced water consumption without suffering economic losses:

- The Estero Municipal Improvement District (Foster City) adopted a conservation-based water rate structure that reduced water use from 5.43 mgd in 2008 to 4.15 mgd in 2013.
- The City of Palo Alto Utilities contracted with WaterSmart to deliver home water reports to residential customers, resulting in water savings of up to 5% for participants.
- Several BAWSCA member agencies have contracted with Waterfluence to provide large irrigation customers with customized water use reports, reducing overwatering by 26% on average.
- Google is using 15 million gallons of recycled water per year for irrigation, and expects this figure to increase to 24 million gallons by the end of the year.

Recommendation: The final Report should analyze the most promising programs and technologies for reducing water consumption at the lowest cost. The cost of such measures, as well as the savings, should be used in determining the socioeconomic impacts of increasing instream flows in the Tuolumne River.

9. The Report Erroneously Equates Quality of Life with Water Consumption.

The Report assumes that higher income levels lead to increased water use. This is not necessarily the case. People strive for a high quality of life, which can be achieved through efficiency and does not always correlate to increased consumption. Also, in many cases water consumption is a means to some other end. There may be a way to substitute other things for water (e.g., technology) and still achieve the desired end. For example, if someone desires to take a longer shower, he may do so without increasing his water use by installing a low-flow showerhead. Water efficient appliances perform the same services as water intensive appliances, but with less waste.

Similarly, people can have beautiful yards without increasing their landscape

[5] http://www.valleywater.org/Programs/IrrigationEquipmentUpgradeRebates.aspx.

irrigation. Climate-appropriate plants, soil moisture sensors, and drip irrigation systems reduce water use dramatically without detracting from the aesthetic value. In fact, native gardens are becoming a status symbol (much like solar panels and electric vehicles) as demonstrated by the growing popularity of the "Going Native Garden Tour."[6]

10. The Report Does Not Include an Analysis of Potential Job Creation from Water Conservation and New Water Source Development.

While the Report estimates potential job losses due to reduced water supply, it does not analyze the potential for job creation in the development of new water sources, new technologies, and the implementation of water conservation measures. These fields will likely grow considerably as demand for them increases.

Recommendation: The final Report should analyze the potential for job creation in fields that help meet water demand through conservation, efficiency, and new water source development.

11. The Report Does Not Adequately Consider the Benefits of Improvements to Fisheries.

The Report focuses exclusively on the potential negative economic impacts of water supply reduction and does not include the potential positive benefits of increasing instream flows. Since the mid-1800s, the Pacific salmon fishery has played an important role in the Bay Area economy. Fisherman's Wharf has evolved into a major San Francisco tourist attraction.

Inadequate instream flows on rivers such as the Tuolumne have degraded salmon spawning and rearing habitat, playing a major role in the species' decline. This has impacted both the commercial and recreational fishing industries, as well as markets, restaurants, and other businesses that benefit from the salmon fishery. Conditions were so poor in 2008 and 2009 that the commercial salmon fishing seasons had to be cancelled. This had a devastating impact on salmon-related businesses in San Francisco and coastal San Mateo County.

Recommendation: The final Report should incorporate potential economic benefits to the commercial and recreational salmon industries of increased instream flows on the Tuolumne River.

CONCLUSION

Thank you for the opportunity to provide comments.

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[6] http://gngt.org/GNGT/HomeRO.php.

Respectfully submitted,

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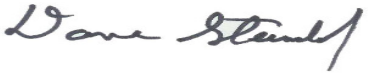

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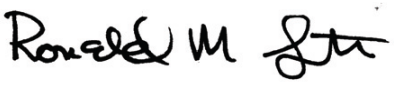

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