

Response to the SFPUC's Document Titled:

“State Water Resources Control Board (SWRCB) Revised Substitute Environmental Document (SED): Potential Impact on San Francisco Bay Area”

Response prepared by the Tuolumne River Trust

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We believe that increasing unimpaired flows on the Tuolumne River to help revive the San Francisco Bay-Delta can be achieved without negatively impacting the Bay Area economy. The point-by-point critique below will show that the SFPUC's claims of potential economic impacts are based on a seriously flawed analysis, and did not come to pass during the drought. Instead, at the height of the drought, the SFPUC had multiple years of water left in storage, and the Bay Area economy grew, both in jobs and economic prosperity.

We encourage the SFPUC to follow the best-available science and play a leadership role in balancing environmental needs with a reliable water supply. Bay Area residents have repeatedly demonstrated their concern for the San Francisco Bay-Delta, with 70% voting to tax themselves in June (Measure AA) to restore the Bay's wetlands.

SFPUC Statement:

Our analysis of the 2012 recommendation (35% unimpaired flows) shows a significant economic hit to our service area:

- 50% shortage of water due to rationing during droughts.
- Economic impact of 188,000 jobs lost.
- \$49 billion annual cost to the local economy.

TRT Response:

Please view a brief video slideshow about the SFPUC's socioeconomics analysis at <https://www.youtube.com/watch?v=FJQ5RhDU6vY&feature=youtu.be>

The figures cited above were produced by economist David Sunding in 2009. In 2014 he produced an updated draft study with much more detail. It reduced the worst-case scenario for projected economic impacts significantly, yet the SFPUC continues to cite the 2009 figures.

Even the 2014 figures are extremely inflated. Had they been correct, we should have seen a loss of \$6.5 billion in sales and 25,000 jobs last year when rationing was at 30%. On the contrary, the economy grew and jobs were created. According to the CA Employment Development Department, San Francisco added more than 125,000 jobs between 2010 and 2015, despite the drought.

In reality, it is unlikely the SFPUC service territory will ever suffer economic losses as a result of releasing more water into the Tuolumne River to restore the ecosystem. This is because the SFPUC has so much storage (almost 1.5 million acre-feet) that it buffers the system from extended droughts. For example, after the recent four-year drought, the SFPUC still had enough water in storage to last three years. During water year 2016, which was a normal water year, the SFPUC captured enough water to last two-and-a-half years, and the system filled to 80% of capacity. This January, the Tuolumne reservoirs were so full that water had to be released into the River to create space in the reservoirs for flood control, and the entire system will fill this year. There will be enough water in storage to last six years.

While providing some environmental benefit, excess water released into the Tuolumne could have benefited the ecosystem over the past few years. Furthermore, it would have offset any water supply deficit that might have occurred during those years had the Bay Delta Plan been in effect.

Regarding the SFPUC's claim that the Bay Delta Plan could result in a 50% shortage in water, please see our response below.

Again, please view our much more thorough analysis at:

<https://www.youtube.com/watch?v=FJQ5RhdU6vY&feature=youtu.be>

SFPUC Statement:

Without a predictable water supply, we are jeopardizing growth and development across the Bay Area including much needed housing projects from San Francisco to San Jose.

- East Palo Alto has already halted 11 development projects because the city cannot guarantee water supplies.

TRT Response:

This statement suggests that East Palo Alto's water shortage is a result of limited water supply, which is not the case. East Palo Alto's shortage is a result of an unfair water allocation.

Individual Supply Guarantees (permanent water supply allocations) for the SFPUC's wholesale customers (represented by BAWSCA) were first established in 1984. The SFPUC allocated a perpetual supply assurance of 184 million gallons of water per day (mgd) to its wholesale customers, and those customers together determined how the water would be allocated amongst themselves. East Palo Alto's allocation was set at a ridiculously low 1.96 mgd.

During the 2015/16 fiscal year, BAWSCA's member agencies used 126 mgd, far below their 184 mgd cap. There's plenty of water available, it just isn't allocated equitably.

The Cities of Palo Alto and Mountain View are currently exploring transfers of some of their excess water allocations to East Palo Alto, and these are likely to happen this year.

SFPUC Statement:

- For example, if San Francisco had to reduce water use by 40%, that would limit us to 25 gallons per person, per day.

TRT Response:

This statement suggests that San Francisco might have to reduce its water use by 40%, which is not the case. According to the SFPUC's Water System Allocation Plan, the SFPUC would be entitled to 98.1% of its water allocation during multiple dry years.¹

SFPUC Statement:

The 2016 SED concludes incorrectly that San Francisco would not have major impacts because we could obtain additional water through other means:

- Water transfers: Especially during times of drought, it is unrealistic to expect other parties who need the water themselves would sell us their water.

TRT Response:

As explained above, it is unlikely the SFPUC would need to purchase water from other agencies because it has enough storage to buffer the system against droughts.

The alleged \$49 billion figure for economic impacts cited by the SFPUC suggests that for every acre-foot of water lost, the economy would lose more than \$400,000. SFPUC customers currently pay about \$1,500 per acre-foot, and the Modesto Irrigation District charges farmers about \$15 per acre-foot. It's ludicrous to suggest there wouldn't be a willing seller for less than \$400,000 per acre-foot, or even a small fraction of that amount. For comparison, recycled water costs a little more than \$2,000 per acre-foot.

SFPUC Statement:

Solutions must include both flow and non-flow measures to improve habitat conditions on the Tuolumne River while providing customers with reliable water supply.

TRT Response:

For more than two years the environmental community has attempted to engage the Tuolumne River water diverters in a Scientific Evaluation Process (SEP) that would bring together biologists from water agencies, state and federal fish and wildlife agencies and non-

¹ SFPUC Urban Water Management Plan, Table 8-2 --
<http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=8839>

governmental organization to assess biological goals and objectives for the Tuolumne and establish a roadmap to achieve them. We're still waiting for a response.

The State Water Resources Control Board has clear jurisdiction over instream flows. It's jurisdiction over non-flow measures, such as habitat restoration and controlling non-native predators, is less clear. Habitat restoration, for example, depends on willing land owners, so the State Water Board has not included non-flow measures in the Bay Delta Plan.

However, the Bay Delta Plan does acknowledge that non-flow measures could play a role in the recovery of native fish species, and a key component of the Plan is an adaptive management framework. Phase 1 of the Plan proposes starting with 40% of unimpaired flow on the San Joaquin River's three major tributaries between February and June, but allows flexibility to go as low as 30% or as high as 50%, depending on whether biological goals and objectives are met.

The challenge with non-flow measure alone is that water diversions on the Tuolumne River have reduced the actual flow on average to just 21% of annual unimpaired flow, dramatically altering the ecosystem. The lower Tuolumne is now slow-moving and warm, creating ideal habitat for non-native species, such as bass and water hyacinth, that thrive under such conditions. Native species, which evolved with faster-moving, colder water, are now at a competitive disadvantage. Without addressing the altered ecosystem, recovery of fish species with non-flow measures alone is not possible.

SFPUC Statement:

Instead of adopting a flawed plan, we believe the best solution is a voluntary agreement with the SFPUC and other affected stakeholders including the Turlock and Modesto Irrigation Districts.

TRT Response:

Pursuing a voluntary agreement is fine, as long as it's not just a stall tactic. In fact, settlement negotiations for the Tuolumne have been underway for two-and-a-half years. The reality is that any solution must include higher flows. The best available science makes it clear that flows are the most important factor in reviving the Bay-Delta and rivers that feed it. Flows affect fish migration, water temperature, dissolved oxygen, water quality, floodplain inundation (critical habitat for juvenile fish rearing) and even predator avoidance.

Please view a video slideshow at <https://www.youtube.com/watch?v=ofjI-il7uJE&t=16s>

SFPUC Statement:

Our analysis of the 2012 recommendation (35% unimpaired flows) shows a significant economic hit to our service area:

- 50% shortage of water due to rationing during droughts.

TRT Response:

This statement is false. According to the Bay Delta Water Quality Control Plan environmental document:

“The 1922-2003 average calculated volume of water potentially available to CCSF under the Raker Act was about 750 TAF/y (thousand acre-feet per year, or 670 mgd)...According to a SFPUC planning document, an average of 244 TAF/y (218 mgd) is diverted from the Tuolumne River...based on data from 1989-2005.”²

The amount of water potentially available to the SFPUC on the Tuolumne is three times the amount it has diverted historically. Last year water use was 30% lower than in 2005. 15% of the SFPUC’s water comes from the Bay Area – a supply that will not be affected by the Bay Delta Plan. Between 2010 and 2014, the SFPUC’s 2.6 million customers used between 220 and 225 mgd. In 2015 they used 195 mgd. In 2016, they used 180 mgd. During droughts SFPUC customers step up and conserve.

As explained above, the SFPUC has enough storage to last six years. Right now, even after the recent drought, the SFPUC has enough water in storage to last longer than 1987-1992 drought.

The SFPUC’s basis for analysis since 2009 has been to assume a worst-case economic scenario during droughts and argue that this is the only possible outcome. A contract between the SFPUC and the Modesto and Turlock Irrigation Districts, known as the Fourth Agreement, obligates the SFPUC to produce 51.7% of any increase in Tuolumne River flows required by the Federal Energy Regulatory Commission (FERC). However, the State Water Board is not a party to the Fourth Agreement, and has no authority to enforce it. The Fourth Agreement is silent on flow increases that might be required by the State Water Board, but each iteration of the SFPUC socioeconomic analysis is founded on the assumption that the SFPUC will be responsible for 51.7% of increased flows, and that SFPUC will find no replacement water if needed.

In testimony to the State Water Board, the SFPUC stated, “In presenting potential water supply and socioeconomic effects from certain interpretations of the Raker Act and the Fourth Agreement, San Francisco does not thereby waive arguments it may have about how the Raker Act or Fourth Agreement should or will be interpreted in future proceedings.” Obviously, the SFPUC intends to challenge any application of the Fourth Agreement if necessary.

² Bay Delta Water Quality Control Plan, Substitute Environmental Document, Appendix L, Page L-4.