

A REVIEW OF SFPUC'S WATER DEMAND PROJECTIONS EXECUTIVE SUMMARY

In an effort to satisfy the future water needs of its wholesale customers, the San Francisco Public Utilities Commission (SFPUC) commissioned a series of comprehensive assessments on the area's future water demand, conservation potential, and recycled water potential. Based on these studies, the SFPUC projects that by 2030, the total water demand of its wholesale and retail customers will increase by 14%, or 33 million gallons per day (mgd).

To meet this projected demand, the SFPUC proposes to divert an additional 25 mgd from the Tuolumne River. In response to the SFPUC's proposal, the Tuolumne River Trust asked the Pacific Institute to independently review the SFPUC wholesale and retail customer demand projections along with the companion reports on water conservation and recycled water.

Our analysis reveals that the SFPUC's studies are inadequate. They may significantly overestimate future regional demand for water. Furthermore, they underestimate the potential for cost-effective demand management and recycled water.

Background

The SFPUC currently draws 85% of its water (225 mgd) from the Tuolumne River, which is collected in the Hetch Hetchy Reservoir and other locations. The SFPUC provides that water directly to its retail customers in San Francisco County. It also supplies water to wholesale customers—28 water agencies located in the San Mateo, Santa Clara, and Alameda counties. According to the SFPUC demand studies, four wholesale agencies—Alameda County Water District, Hayward, Milpitas, and Santa Clara—account for nearly 80% of the total estimated demand increase.

Summary of Findings

Analysis inadequate in evaluating projected demand.

Commercial and industrial users are responsible for over 80% of the SFPUC's projected 2030 demand increase. The Pacific Institute finds that the method used to project this non-residential demand commits two important errors. The SFPUC study assumes that all economic sectors use water at the same rate and that economic growth rates apply to all sectors equally. Both of these assumptions are false. Regional projections for the San Francisco Bay Area indicate that

sector growth rates vary tremendously and that those sectors that use more water will grow more slowly. The Association for Bay Area Governments (ABAG) projects that employment in the health and educational services and information subsectors (traditionally lower water-using sectors) will increase by nearly 50% by 2030. By contrast, ABAG projects that employment in the manufacturing and wholesale subsector (a traditionally higher water-using sector) will grow by a more modest 17 percent. The SFPUC's errors could lead to a largely inaccurate projected future demand.

Projected per capita demand bucks historical trends.

Among wholesale customers, the SFPUC projects per capita demand will increase. This projection contradicts decades of statewide trends that demonstrate decreasing per capita demand. Numerous California water agencies continue to project reductions in future demand with available technologies and policies.

Outdoor demand projections indicate weak conservation.

Outdoor water use is responsible for 60% of the anticipated increase in demand. A closer look at the SFPUC's projected per capita outdoor water use for single families actually shows a slight increase in demand. This suggests single-family homes will become *less* efficient and more water-intensive, highlighting the fact that conservation efforts targeting outdoor use are insufficient.

Studies underestimate role of water recycling and reuse.

According to the SFPUC studies, recycling and reuse will provide only 3% (13 mgd) of the total projected demand. This estimate is much lower than water agency achievements elsewhere. The use of recycled water is well-suited to non-residential and outdoor uses. With the majority of the projected demand driven by these uses, recycled water can effectively reduce future demand on the Tuolumne River.

Based on these findings, we conclude that the SFPUC's demand and conservation studies fail to adequately estimate future water demand and fall short of proven efficiency levels. In our full report, we offer recommendations to assist the SFPUC in improving their modeling, assessment, and conservation efforts. We hope the SFPUC will strive to meet the water needs of Bay Area customers while upholding and implementing efforts that are cost- and resource-efficient.

For the full Pacific Institute analysis, go to
www.pacinst.org/reports/tuolumne

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