

**BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING**

June 6, 2025

Correspondence and media coverage of interest between April 2025 and June 5, 2025

Correspondence

From: Tom Smegal, BAWSCA CEO/General Manager
To: Kate Stacy, SFPUC President
Date: May 29, 2025
Subject: Projected Wholesale Customer Water Purchases from the San Francisco Regional Water System in Compliance with Section 4.05 of the 2021 Amended and Restated Water Supply Agreement between San Francisco and its Wholesale Customers

From: Peter Drekmeier
To: Chair Chambers and Members of the BAWSCA Board of Directors
Date: May 19, 2025
Subject: TRT Complaint – SFPUC Unreasonable Use

From: Dennis Herrera, SFPUC General Manager
To: Greer Stone, Councilmember, City of Palo Alto
CC: Tom Smegal, BAWSCA CEO/General Manager
Steve Ritchie, SFPUC Asst. General Manager, Water Enterprise
Date: May 12, 2025
Subject: Response to Letter from Councilmember Greer Stone

From: Greer Stone, Councilmember, City of Palo Alto
To: Dennis Herrera, SFPUC General Manager
Date: April 2025
Subject: Request for information from SFPUC

Water Supply Conditions:

Date: May 23, 2025
Source: San Francisco Chronicle
Article: California's second-largest reservoir fills for third straight year

Water Management:

Date: June 5, 2025
Source: Maven's Notebook News and Features
Article: Spilling reservoirs and empty basins – California's storage dilemma

Water Infrastructure:

Date: June 1, 2025
Source: KGO
Article: New high-tech maps developed by Stanford could fast track groundwater recharge: Here's how it works

Water Infrastructure, cont'd.:

Date: May 29, 2025
Source: The Independent
Article: Governor Newsom Attempts To Fast-Track Delta Conveyance Project Water Tunnel

Date: May 29, 2025
Source: Capitol Weekly
Article: California's water security demands action, not more delays

Water Policy:

Date: June 2, 2025
Source: LA Times
Article: After half a century, California legislators on the verge of overhauling a landmark Environmental law



May 29, 2025

The Hon. Kate H. Stacy, President
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102

SUBJECT: Projected Wholesale Customer Water Purchases from the San Francisco Regional Water System in Compliance with Section 4.05 of the 2021 Amended and Restated Water Supply Agreement between San Francisco and its Wholesale Customers

Dear President Stacy,

Section 4.05 of the 2021 Amended and Restated Water Supply Agreement between the City and County of San Francisco and its Wholesale Customers (Agreement) requires the San Francisco Public Utilities Commission (SFPUC) to annually prepare a Water Supply Development Report (Report) for consideration by the Commission each December. The need to report is in effect through December 31, 2028.

The Agreement provides that the Bay Area Water Supply and Conservation Agency (BAWSCA) will provide the SFPUC with water purchase projections for the Wholesale Customers to be utilized in the Report. These projections are to be submitted by BAWSCA to the Commission in June of each year.

Based on information provided to BAWSCA by its member agencies, the aggregate Wholesale Customer Water Purchases in FY 2027-2028 are currently projected to be 152 MGD.

The enclosed Table 1 summarizes the projected purchases from San Francisco for each Wholesale Customer in FY 2027-2028. This table was prepared using data documented in the *BAWSCA FY 2023-24 Annual Survey*.

BAWSCA looks forward to working with your staff as the Report is prepared for the Commission's consideration this coming December. If you have any questions, please contact Tom Francis, BAWSCA Water Resources Manager, at 510-944-4392 (cell).

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Smegal", is written over a faint, larger blue outline of the signature.

Thomas F. Smegal
Chief Executive Officer/General Manager

Enclosure:

- Table 1: Projected SFPUC Purchases by the BAWSCA Member Agencies in FY 2027-28

cc: Dennis Herrera, SFPUC General Manager
BAWSCA Board of Directors
BAWSCA Member Agency Representatives
Allison Schutte, Hanson Bridgett

Table 1
Projected SFPUC Purchases by the BAWSCA Member Agencies in FY 2027-28

| BAWSCA Member Agency | Individual Supply Guarantee | Interim Supply Allocation | Projected SFPUC Purchases in FY 2027-28 (a) |
|--|-----------------------------|---------------------------|---|
| | (mgd) | (mgd) | (mgd) |
| Alameda County WD | 13.76 | 13.76 | 11.50 |
| Brisbane/GVMID | 0.98 | 0.96 | 0.82 |
| Burlingame | 5.23 | 4.97 | 4.16 |
| Coastside County WD | 2.18 | 2.18 | 1.39 |
| CWS - Bear Gulch, Mid-Peninsula, and SSF Districts | 35.68 | 35.68 | 28.87 |
| Daly City | 4.29 | 4.29 | 5.80 |
| East Palo Alto (c) (d) | 3.46 | 3.46 | 1.91 |
| Estero Municipal ID | 5.90 | 5.85 | 4.46 |
| Hayward | —(b) | 22.92 | 18.02 |
| Hillsborough | 4.09 | 3.72 | 3.24 |
| Menlo Park | 4.46 | 4.1 | 3.39 |
| Mid-Peninsula WD | 3.89 | 3.71 | 2.85 |
| Millbrae | 3.15 | 3.13 | 2.37 |
| Milpitas | 9.23 | 8.96 | 6.66 |
| Mountain View (c) | 12.46 | 10.43 | 9.24 |
| North Coast County WD | 3.84 | 3.67 | 2.32 |
| Palo Alto (d) | 16.58 | 14.2 | 10.30 |
| Purissima Hills WD | 1.63 | 1.63 | 2.09 |
| Redwood City | 10.93 | 10.88 | 8.53 |
| San Bruno | 3.25 | 2.65 | 3.18 |
| San Jose | 0 (b) | 4.13 | 4.50 |
| Santa Clara | 0 (b) | 4.13 | 4.50 |
| Stanford University | 3.03 | 2.91 | 1.78 |
| Sunnyvale | 12.58 | 10.59 | 9.21 |
| Westborough WD | 1.32 | 1.08 | 0.87 |
| Member Agency Total (e): | -- | 184 | 152 |
| Total Supply Assurance: | 184 | -- | -- |

Notes:

(a) Source: BAWSCA FY 2023-24 Annual Survey, Table 3E-1 (Demand Projects by Source). Projections derived by straightlining the projected purchases in FY 2025-26 and in FY 2030-31.

(b) Hayward does not have a fixed ISG. San Jose and Santa Clara are temporary and interruptible customers of the SFPUC and do not have an ISG.

(c) Individual Supply Guarantees for East Palo Alto and Mountain View were adjusted to address a 1 MGD transfer that took place in FY 2016-17.

(d) Individual Supply Guarantees for East Palo Alto and Palo Alto were adjusted to address a 0.5 MGD transfer that took place in FY 2017-18.

(e) BAWSCA prepared a demand study update. That update was completed in June 2020, and the 2020 study was refreshed in 2022. Numbers from the 2020 refreshed demand study were incorporated into the Annual Survey in most cases, except when other data was specifically asked to be used by certain member agencies.

Abbreviations:

CWS = California Water Service

GVMID = Guadalupe Valley Municipal Improvement District

ID = Improvement District

ISG = Individual Supply Guarantee

mgd = million gallons per day

WD = Water District

From: [Peter Drekmeier](#)
To: [bawscaboardofdirectors](#)
Subject: TRT Complaint - Unreasonable Use
Date: Monday, May 19, 2025 10:43:12 AM
Attachments: [Cover Letter - Unreasonable Use Complaint.pdf](#)
[TRT Complaint - SFPUC Unreasonable Use FINAL.pdf](#)

Dear Chair Chambers and BAWSCA Board:

I appreciated the opportunity to participate in last week's Board meeting and to witness some very productive discussions. It's been refreshing to see lots of Board engagement in recent months, and I credit CEO Smegal with empowering the Board to be more proactive.

I mentioned that on Earth Day I submitted a complaint regarding the SFPUC's "unreasonable use" of water. Our argument is not that water is used unreasonably (BAWSCA and the SFPUC have done a good job at reducing demand), but rather that water is managed unreasonably. The Tuolumne River is starved in dry years and then all the water we conserved gets spilled when normal precipitation returns.

My complaint is attached.

Thank you for your attention.

-Peter

Peter Drekmeier
Policy Director
Tuolumne River Trust
peter@tuolumne.org

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Earth Day, April 22, 2025

Chair Joaquin Esquivel and Board Members
State Water Resources Control Board
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Brad Wurtz

RE: Complaint of Unreasonable Use of Water by the San Francisco Public Utilities Commission (SFPUC)

Dear Chair Esquivel and Board Members:

On behalf of the Tuolumne River Trust, I respectfully submit this complaint asserting that the San Francisco Public Utilities Commission (SFPUC) is engaging in an unreasonable use of water, in violation of Article X, Section 2 of the California Constitution and the Public Trust Doctrine.

The SFPUC's reliance on an extreme "Design Drought" scenario—72% more severe than any drought in over 1,100 years—has led to systematic over-storage of water during dry years, when the Tuolumne River needs it most. This strategy results in degraded ecosystems, plummeting salmon populations, risky spills in wet years, and skyrocketing water rates for consumers.

The attached documentation provides detailed analysis showing that current SFPUC water demand is far below planning assumptions, and that available storage and entitlements are more than sufficient to meet both human and environmental needs—even in severe droughts.

We urge the State Water Resources Control Board to investigate this matter and take appropriate action to bring the SFPUC's water management into compliance with reasonable use standards and to protect the Tuolumne River's ecological health.

Thank you for your attention and leadership on this vital issue.

Sincerely,

A handwritten signature in purple ink that reads "Peter Dreke".

Peter Dreke
Policy Director

cc: Eric Oppenheimer
Erik Ekdahl
Diane Riddle
Erin Foresman
Yana Garcia, CalEPA
Wade Crowfoot, CA Natural Resources Agency

Unreasonable Use of Water Complaint Against the SFPUC

Earth Day – April 22, 2025

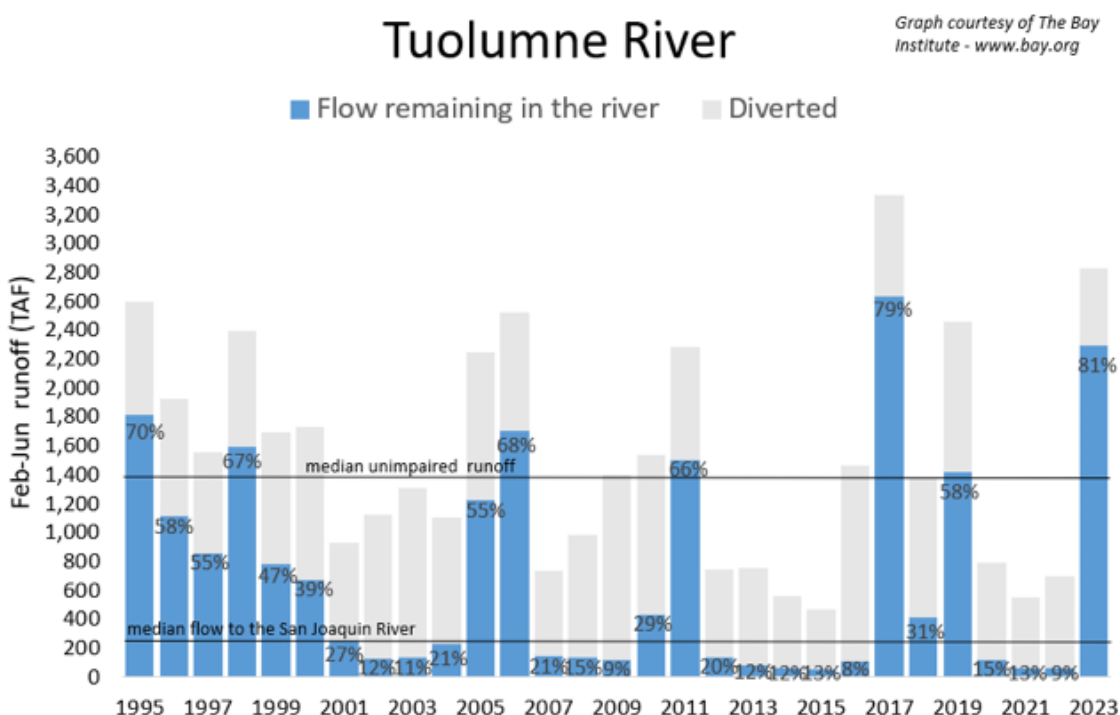
Submitted by Tuolumne River Trust: Peter Drekmeier, peter@tuolumne.org, (650) 248-8025.

1. Overview

The San Francisco Public Utilities Commission (SFPUC) hoards water in dry years to accommodate an irrational fear of a future drought that is 72% more severe than the worst drought in 1,100 years, based on tree ring data. As a result, the Tuolumne River and ratepayers suffer. This is clearly an unreasonable use of Public Trust water.

In years when the SFPUC's reservoirs (Hetch Hetchy, Cherry and Eleanor) and water bank at Don Pedro are not expected to fill, the SFPUC only releases the minimum required baseflows, which are woefully inadequate to sustain a healthy river. As a result, beneficial uses such as fish and wildlife habitat and recreation have suffered, and water rates have skyrocketed. The Tuolumne has experienced the worst salmon population decline of any tributary to the San Joaquin or Sacramento Rivers.

During the 2012-15 drought, plus an additional recovery year, releases into the lower Tuolumne River between February and June averaged just 12% of unimpaired flow (see graph below). Then in 2017, the water agencies were forced to spill most of their stored water, and the lower Tuolumne experienced 79% of unimpaired flow. The problem has repeated during every year sequence.



The SFPUC's terrible management of the Tuolumne River is driven by their "Design Drought," described as follows:

"Our Level of Service objective for water supply (used since 1994 and adopted in 2008) is to survive a specific 8.5-year drought planning scenario (1987-92 followed by 1976-77) with no more than 20% rationing from a total system demand of 265 MGD."

The Design Drought was created following the 1987-92 drought. Much has changed since then, as described below, yet the SFPUC has refused to consider making even modest changes to their drought planning policy.

2. The Design Drought is arbitrary and unjustified.

Without any analysis, the Design Drought was created by simply combining the most severe drought on record (1987-92) with the driest two-year drought on record (1976-77) to manufacture an 8.5-year megadrought. Given the uncertainties of climate change, it might be prudent to plan for a worse drought than those we've experienced – but the Design Drought is 72% more severe than the worst drought on record. Urban Water Management Plans require water agencies to plan for their driest five-year sequence.

The SFPUC's Long-Term Vulnerability Assessment (LTVA)¹, shows that the 1987-92 drought creates a deficit (water needed from storage) of 707 TAF (see slide 1). While considerably shorter in duration, the 1976-77 drought requires 510 TAF from storage, making the total deficit of the Design Drought 1,217 TAF, plus additional water needed to cover the five month recovery period at the end (making the Design Drought 8.5 years). These calculations assume water demand of 269 thousand acre feet per year (TAF/y), which equals 240 million gallons per day (mgd), much greater than demand has been in recent years.

Entering the 1987-92 drought, water demand in the SFPUC service area peaked at 293 mgd (see slide 2). Despite population growth, demand has declined steadily since then and has been under 200 mgd for the past 10 years. In other words, the Design Drought's 265 mgd system demand assumption is 35% greater than demand has been for the past decade.

Using our water supply calculator, TRT found that the SFPUC could manage a repeat of the 1987-92 drought of record, with the Bay Delta Water Quality Control Plan in effect, without requiring any rationing or developing any new alternative water supplies. Incorporating modest rationing (that which people are used to) would enable the SFPUC to manage an unprecedented seventh year of drought. There's enough water available to manage a drought much worse than any on record while also maintaining environmentally sustainable flows in the Tuolumne.

¹ SFPUC Long-Term Vulnerability Assessment (2021) – https://www.sfpuc.gov/sites/default/files/about-us/policies-reports/LTVA_AdaptationPlanSFPUC_execsummary.pdf

The SFPUC has not challenged our conclusion, but simply points out that they are planning for the Design Drought.

3. The SFPUC has exceptional water rights and enviable storage.

The 1913 Raker Act established water rights on the Tuolumne River. As senior diverters, the Modesto and Turlock Irrigation Districts are entitled to the first 2,400 cubic feet per second (cfs) of runoff for most of the year, with the cutoff increasing to 4,000 cfs from mid-April to mid-June. In very dry years, the SFPUC's entitlements are poor, but in normal and wet years they are exceptional (see slide 3). According to the Substitute Environmental Document (SED) for the Bay Delta Plan, "The 1922-2003 average calculated volume of water potentially available to CCSF [City and County of San Francisco] under the Raker Act was about 750 TAF/y."² With demand having been under 200 mgd (224 TAF) for the past decade, The SFPUC is entitled to enough water in an average year to last more than three years, so storage fills quickly following prolonged droughts.

Slide 4 shows the SFPUC's annual entitlements (cut off at 2 million acre feet) since 1922. Slide 5 demonstrates the variability in SFPUC entitlements over the past decade, with a low of 22 TAF in 2014, and highs of 3,309 TAF in 2017 and 2,774 TAF in 2023. Keep in mind that annual demand has been under 224 TAF for the past 10 years.

Historically, the SFPUC projected that water demand would be twice what it actually is today. Slide 6 shows projections from the 1970s and 1980s suggesting demand would be in the 350-450 mgd range. It's been under 200 mgd for the past decade.

In preparation for much higher projected demand, the SFPUC invested in considerable storage capacity. Slide 7 shows total system storage of 1,457 TAF. Of this, 96 TAF is inaccessible, leaving 1,361 TAF of useable storage. At full storage (the SFPUC's goal for July 1 of every year), the SFPUC has enough water available to last six years, making the system highly resistant to prolonged droughts.

During the 2012-15 drought, the SFPUC never had less than 3.5 years-worth of water in storage (see slide 8). In 2016 (an average year) storage filled quickly, and by 2017 the SFPUC needed only 373 TAF to reach full storage (see slide 9), but was entitled to 3,309 TAF. More than 85% of the SFPUC's entitlement had to be spilled at the expense of the five previous years in which unimpaired flow averaged just 12%.

² Bay Delta Water Quality Control Plan, Phase 1 SED, Appendix L, p. L-4 – https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2018_sed/docs/appx_l.pdf

4. SFPUC water demand will remain relatively flat.

The SFPUC's 2000 Urban Water Management Plan projected that water demand would be 50% greater today than it actually is (see slide 10). State legislation aimed at protecting against droughts certainly played a major role in reducing water consumption, but price elasticity also has been a huge driver, and will continue to be so.

In 2008, when the SFPUC adopted its Water System Improvement Program (80+ capital improvement projects), demand was projected to reach 285 mgd by 2018. To pay for the WSIP (\$4.8 billion plus debt service), the price of water tripled by 2018 – sending a price signal to consumers – and actual demand was 196 mgd. Between 2008 and today, the cost of water has quadrupled (see slide 11) and will continue to increase (see slide 12). The SFPUC has projected that combined water and sewer bills in San Francisco will increase 8% per year for at least the next 10 years. Based on historic under-projections, rates will likely increase more rapidly.

The SFPUC uses two sets of demand projections.

The SFPUC uses two sets of demand projections, one overseen by the Water Enterprise for water supply planning and the other overseen by the Finance Bureau for financial planning. In 2022, at the direction of the Commission, SFPUC staff produced a report comparing the two sets of projections.³ It found that both departments have consistently over-projected demand, but the Finance Bureau has been much closer to actual demand (see slide 13).

The report states:

“The [Water Enterprise] projections represent an outside bound of whatever demand will occur in the next 25 years...These demands will likely always be greater than actual demands because not all developments materialize, or they materialize slower than projected.”

And:

“By contrast, for the purpose of financial planning and for short term water system management, we estimate the demand that we are likely to experience. For budgeting and rate setting we use demand projections that are as close to actual as we can make them. The SFPUC Finance Bureau projects water sales will remain flat for at least the next decade.”

If the SFPUC were to simply use their Finance Bureau projections, it would reduce the perceived demand in 2045 by 37 mgd. Slide 14 compares Water Enterprise and Finance Bureau projections for the next 20 years.

³ SFPUC “Water Enterprise and Finance Bureau Water Demand Projections,” July 5, 2022 – <https://sfpuc.sharefile.com/share/view/sa628ebe9c31e4326b84ffa2976f9f9a3>

The SFPUC uses faulty population and jobs growth projections

The SFPUC and the Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the SFPUC's 26 wholesale customers outside of San Francisco, used Plan Bay Area population and jobs growth projections to produce their 2020 Urban Water Management Plans (UWMPs). The projections were produced by the Association of Bay Area Governments and Metropolitan Transportation Commission, which embraced aggressive jobs growth assumptions and commensurate housing needs, adding 2 million more people to the Bay Area by 2050.

In comparison, the California Department of Finance (DOF) – the standard-bearer for population and jobs growth projections – assumed much slower growth. In 2020, Plan Bay Area projected 39% growth in San Francisco's population by 2045, whereas DOF projected 10% growth in the same time period. Corresponding numbers for the BAWSCA region were 31% and 14%.

In a 2022 water demand study, BAWSCA included a sensitivity analysis, finding that by using DOF growth projections, water demand would remain flat. The SFPUC has stalled on producing its own sensitivity analysis, and isn't planning to release anything until after the 2025 UWMPs have been finalized and submitted.

5. Climate change poses little risk to SFPUC water supply.

The SFPUC's Long-Term Vulnerability Assessment (LTVA), released in 2021, studied how climate change might impact their water supply. It found that we might expect greater swings in precipitation, but overall precipitation was unlikely to change much. The study states:

“According to climate projections and expert elicitations, there is a central tendency of warming of +2°C and +4°C by 2040 and 2070 (Representative Concentration Pathway [RCP] 8.5), respectively, with no clear direction of change in mean annual precipitation over the planning horizon.”⁴

The study found the likelihood of the Design Drought occurring to be infinitesimally small. Based on 100 years of recorded data, 1,100 years of tree ring data, and 25,000 simulated model runs, the worst drought the LTVA produced required about 1,200 TAF of water from storage (see slide 15). The Design Drought (at 240 mgd demand) would require 1,309 TAF of water from storage.

The LTVA includes return periods (likelihood of occurrence) for the known droughts (see slide 16), but inexplicably does not list a return period for the Design Drought. However, through a Public Records Act request, TRT uncovered a document from 2020 showing that the authors

⁴ [LTVA Executive Summary](#), p. 2.

had previously calculated the return period for the Design Drought to be once in 25,000 years (see slide 17).

The consultants had concerns with their original model and recalibrated the return periods for the known droughts for the final LTVA. Their numbers were adjusted downward significantly. Although a return period for the Design Drought was not included in the final LTVA, one could surmise that it also should be adjusted in proportion to the known droughts. This results in a return period for the Design Drought of once-in-8,000-years (see slide 18).

Removing a year from the Design Drought (it would still be the most conservative drought plan in the state) would reduce the amount of water needed from storage by 25 mgd, water that could be used for environmental purposes.

6. The SFPUC's mismanagement of water harms people and the environment.

Hoarding water unnecessarily causes environmental degradation.

It is well documented that the Tuolumne River ecosystem has been in decline for decades. The Tuolumne diverters recently completed an in-river habitat restoration project aimed at improving *spawning* habitat, and thus the production of juvenile fish, or fry. However, studies suggest that fry production is not a limiting factor for salmon recovery. The lack of sufficient *rearing* habitat, such as floodplains, is what constrains the salmon population. A 2008 limiting factor analyses⁵ commissioned by USFWS, NMFS and CDFG stated:

“The limiting factor analyses suggest that Chinook salmon recruitment...is highly correlated with the production of smolt outmigrants in the Tuolumne River and that winter and spring flows are highly correlated with the number of smolts produced. Other evidence from rotary screw trap studies indicate that many more fry are produced in the Tuolumne River than can be supported with the existing minimum instream flow schedules, and so, producing more fry by restoring spawning habitat is unlikely to increase adult recruitment. Stock-recruitment relationships based on the long-term escapement and harvest data suggest that the rearing habitat is saturated with juvenile fish when at least 500 adults return to spawn. Low spawner abundances (< 500 fish) have occurred as a result of extended periods of drought when juvenile survival is reduced as a result of low winter and spring flows and not as a result of high rates of ocean harvest.”

With extremely low instream flows during drought years (averaging just 12% of unimpaired flow between 2012 and 2016, for example), it's no mystery why the Tuolumne salmon population is struggling. For native fish populations to rebound, floodplains need to be restored and activated by higher flows.

⁵ “Limiting Factor Analyses & Recommended Studies for Fall-run Chinook Salmon and Rainbow Trout in the Tuolumne River (draft),” USFWS, NMFS, CDFG (2008) – <https://static1.squarespace.com/static/5eebc0039b04b54b2fb0ce52/t/6806d67dc6d6d0507fbed5/1745278591397/Mesick+-+Limiting+Factors+Analysis+-+2008+Report.pdf>

Hoarding water leads to imprudent investments and skyrocketing water rates.

Based on the SFPUC's contention that the Bay Delta Plan could lead to 51% rationing, the City of Palo Alto recently completed a \$559,000 "One Water Plan" to address an assumed water supply shortfall. After educating themselves about the Design Drought and inflated water demand projections, the City's Utilities Advisory Committee rejected the Plan, finding it was based on a false premise. The report will now gather dust on a shelf.

The Palo Alto example is only the tip of the iceberg. Based on the Design Drought and inflated demand projections, the SFPUC recently produced an Alternative Water Supply Plan that suggests they might need to develop 92-122 mgd of alternative water supplies at a cost of \$17-\$25 billion. Water rates in the SFPUC service area are already the highest in the State, and would skyrocket if the SFPUC were to invest in unneeded infrastructure. Ratepayers would pay the price.

In November 2021, the SFPUC declared a Water Shortage Emergency. At the time, they had enough water in storage to last 4.5 years and never dropped below four years-worth of stored water during the 2020-22 drought. In April 2022, they imposed a 5% drought surcharge on San Francisco ratepayers.

In 2023, the SFPUC was entitled to enough water from the Tuolumne River (2,774 TAF) to last 12 years. It was clear early in the year that the drought was over (see slide 19), yet for budgeting purposes the SFPUC assumed the drought surcharge would remain in place for fiscal year 2023/24. This resulted in a huge budget shortfall, which was explained as follows:

*"Water and Wastewater: revenues are projected to be below budget. The budget was adopted assuming the drought surcharge would remain. It was removed May of 2023. Additionally, the wholesale water volumes are lower than expected."*⁶

Slides 20 and 21 show the budgetary impacts of this extremely poor (and perhaps manipulative) planning. The annual budget shortfall for combined water and sewer revenues in San Francisco alone was \$55 million – a deficit passed on to ratepayers.

Hoarding water puts downstream communities at risk of flooding.

From 2012 through 2016, the Tuolumne diverters released only minimum baseflows. The water people conserved during the drought was impounded behind dams, providing no environmental or societal benefits. The reservoirs began to fill in 2016 (an average year), and by early 2017 it was clear the reservoirs would easily fill and spill, which resulted in 79% of unimpaired flow in the lower Tuolumne River between February and June.

⁶ SFPUC Quarterly Budget Report, Slide 2, December 12, 2023 – <https://sfpuc.sharefile.com/share/view/se1f88d7d5b3a41829939713649bc1802>

For three months, releases into the lower Tuolumne River hovered around 9,000 cfs – the maximum allowed by the flood rules (see slide 22). However, for one week in March, the water agencies were forced by nature to release up to 15,000 cfs. Fortunately, downstream flooding was limited due to improvements made since the 1997 flood. Had releases been higher during the drought, Don Pedro Reservoir would have had more capacity to capture floodwater and Modesto would have been at less risk of flooding in 2017.

7. Conclusion

The SFPUC manages its Tuolumne River water supply based on an unjustifiable Design Drought and inflated demand projections that lead to hoarding water in dry years when the River needs it most, and then spilling excessive amounts of water in wet years. As a result, people and the environment suffer. We hope the State will agree that this is an unreasonable use of water and will act accordingly to protect the Public Trust and all beneficial uses.

Note: Slides presented on following pages.

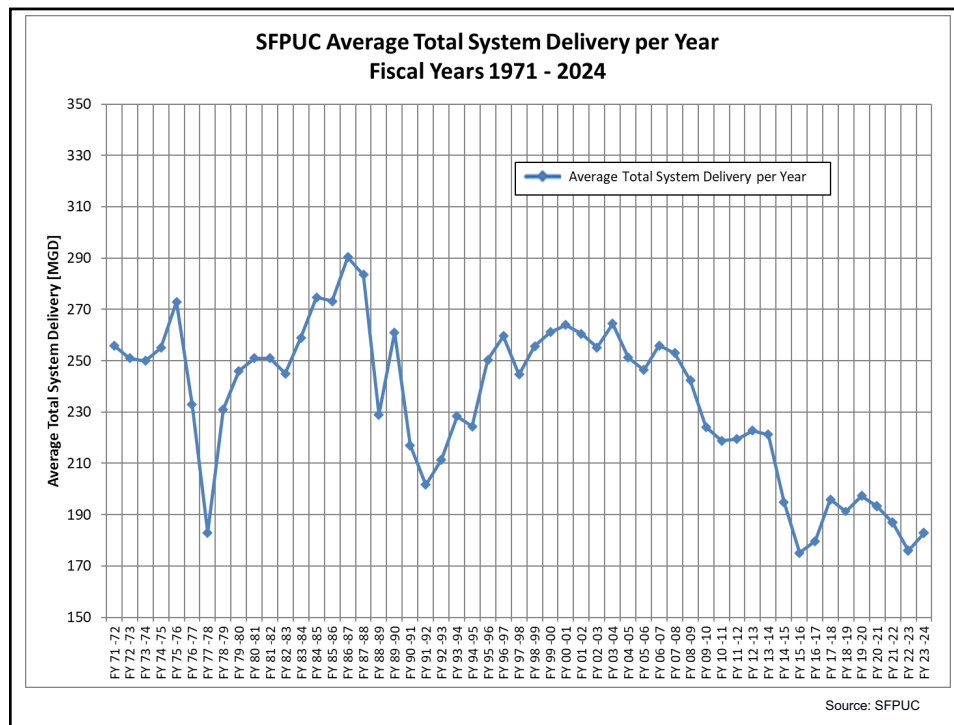
The Design Drought is 72% more severe than the worst drought on record

Table 3-9. Extracted Drought Events from Historical Tuolumne Flow at La Grange for Two Different Thresholds.
For each threshold, the drought events are sorted by decreasing severity.

| Threshold: 269 TAF | | | Threshold: 365 TAF | | |
|--------------------|----------------|-----------------------------|--------------------|----------------|-----------------------------|
| Year Drought ends | Severity [TAF] | Duration of Deficit [Years] | Year Drought Ends | Severity [TAF] | Duration of Deficit [Years] |
| 1992 | 707.39 | 6 | 1992 | 1283.39 | 6 |
| 2015 | 594.35 | 4 | 2015 | 978.35 | 4 |
| 1977 | 510.18 | 2 | 1977 | 702.18 | 2 |
| 1961 | 389.44 | 3 | 1961 | 677.44 | 3 |
| 1931 | 312.14 | 3 | 1931 | 600.14 | 3 |
| 1924 | 233.66 | 1 | 2008 | 418.98 | 2 |
| 2008 | 226.98 | 2 | 1934 | 357.10 | 2 |
| 1934 | 218.34 | 1 | 1924 | 329.66 | 1 |
| 1994 | 204.77 | 1 | 1968 | 229.06 | 1 |
| 1968 | 133.06 | 1 | 1939 | 223.20 | 1 |
| 1939 | 127.20 | 1 | 1947 | 190.42 | 1 |
| 1947 | 94.42 | 1 | 1964 | 189.19 | 1 |
| 1964 | 93.19 | 1 | 1981 | 165.90 | 1 |
| 1981 | 69.90 | 1 | 1972 | 154.99 | 1 |
| 1972 | 58.99 | 1 | 1985 | 118.42 | 1 |
| 1985 | 22.42 | 1 | 1955 | 104.96 | 1 |
| 1955 | 8.96 | 1 | 2001 | 75.15 | 1 |
| | | | 1926 | 72.70 | 1 |
| | | | 1966 | 45.69 | 1 |
| | | | 1944 | 37.45 | 1 |
| | | | 2004 | 37.09 | 1 |

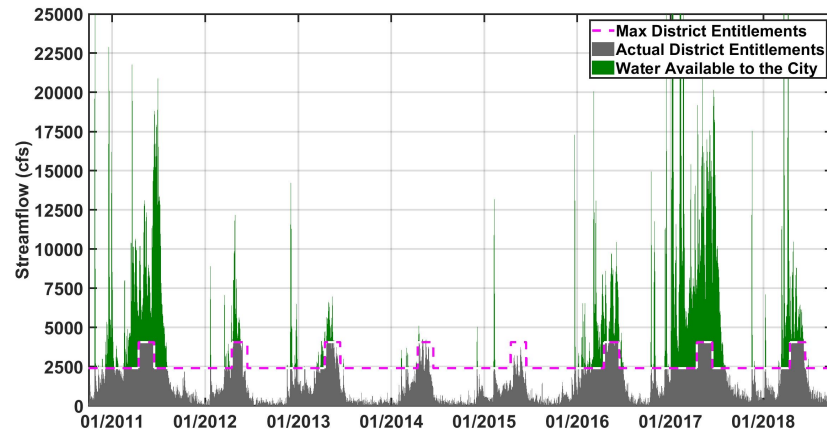
Source: SFPUC
LTVA, 2021

1



2

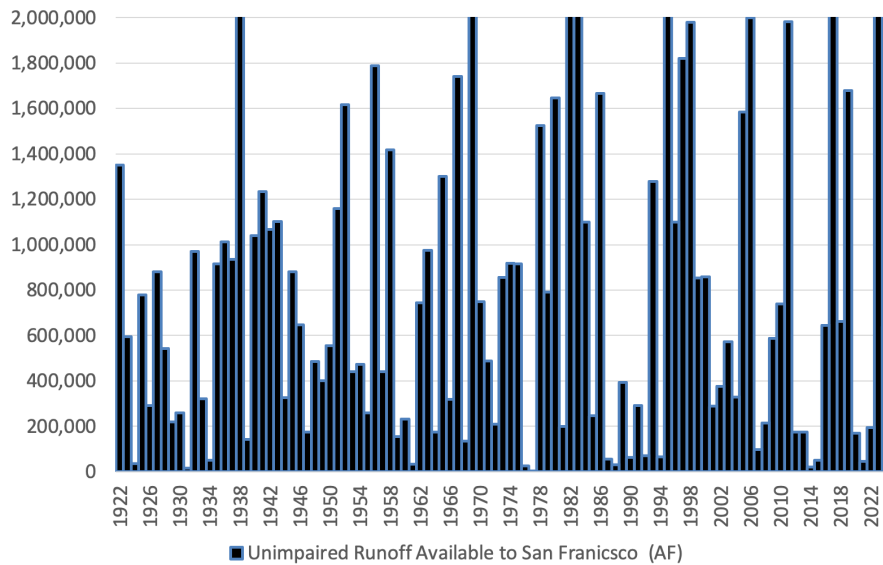
Tuolumne River Water Entitlements



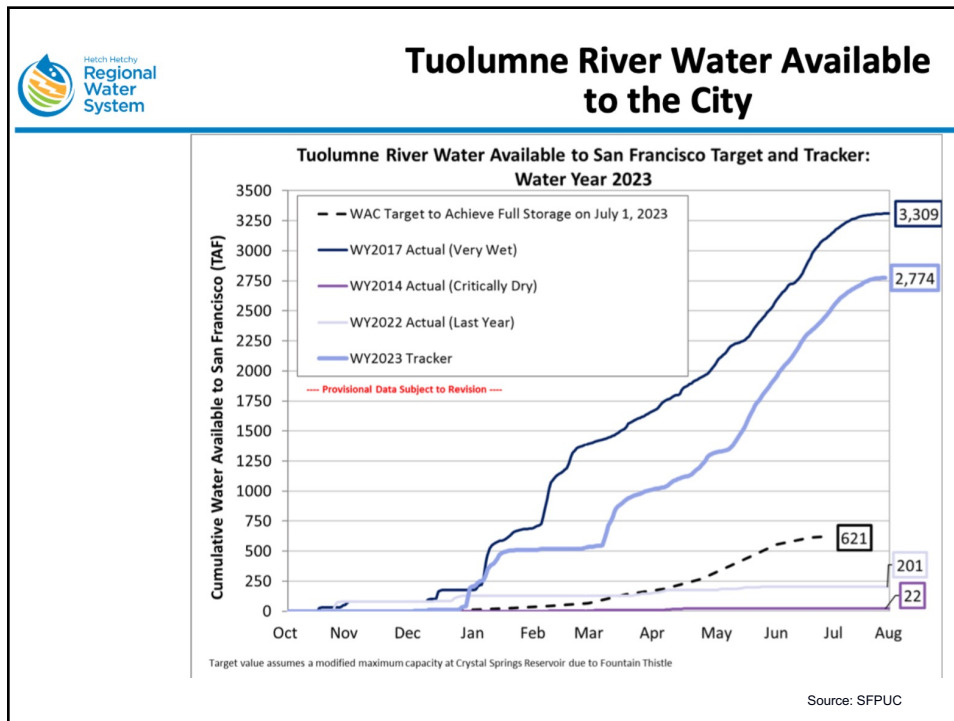
The SFPUC's water rights are poor in dry years, but exceptional in normal and wet years.

3

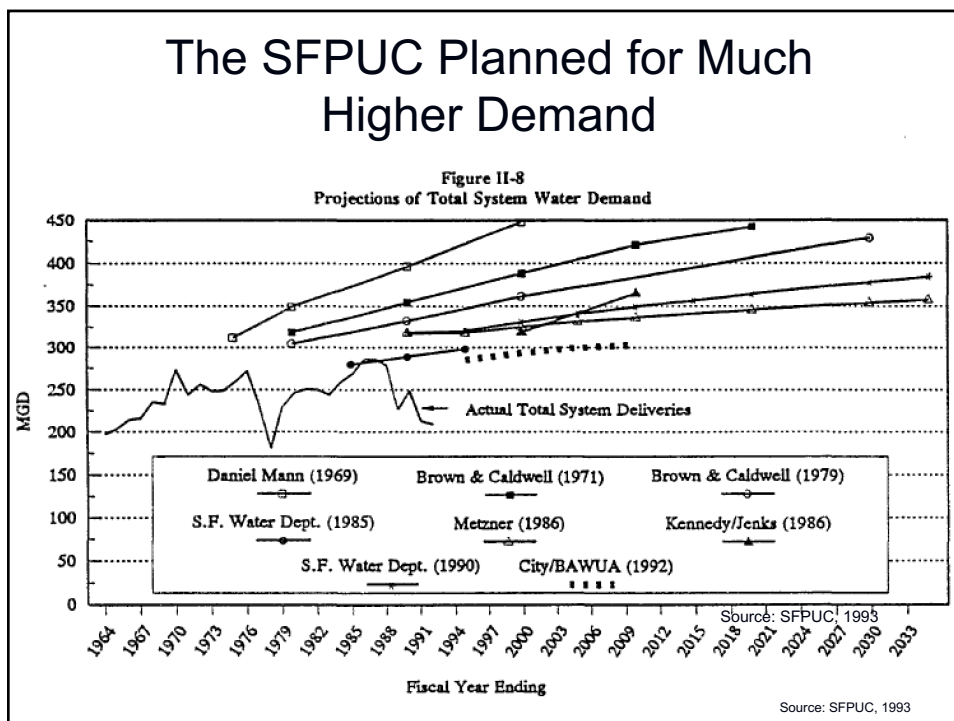
Tuolumne River Water Available to San Francisco
1922-2024



4



5



6



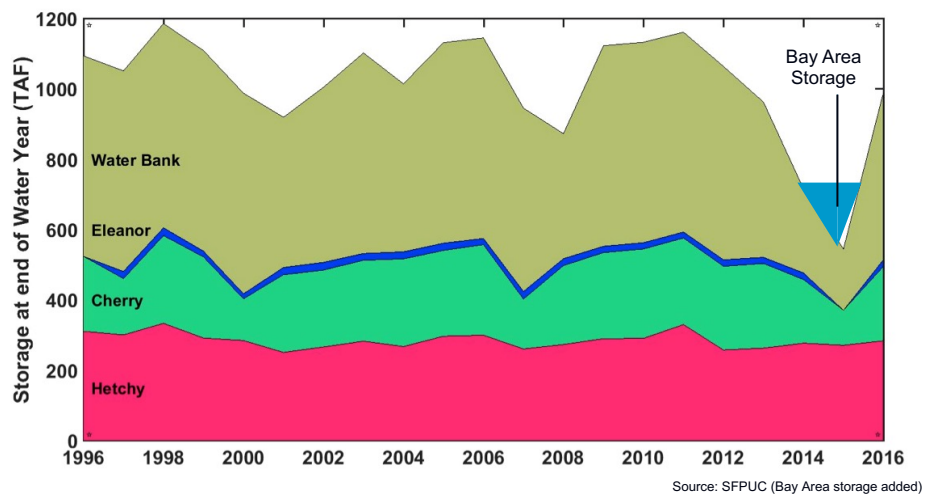
April 14, 2025, Reservoir Storage

| Reservoir | Current Storage ^{1,2,3} (AF) | Maximum Storage ⁴ (AF) | Available Capacity (AF) | Percent of Maximum Storage | Normal Percent of Maximum Storage ⁵ |
|---------------------------------|--|--------------------------------------|----------------------------|----------------------------|--|
| Tuolumne System | | | | | |
| Hetch Hetchy | 273,700 | 360,360 | 86,660 | 76.0% | 60.3% |
| Cherry | 246,900 | 273,345 | 26,445 | 90.3% | - |
| Eleanor | 24,200 | 27,100 | 2,900 | 89.3% | - |
| Water Bank | 570,000 | 570,000 | 0 | 100.0% | 99.5% |
| Total Tuolumne Storage | 1,114,800 | 1,230,805 | 116,005 | 90.6% | - |
| Local System | | | | | |
| Calaveras | 78,577 | 96,670 | 18,093 | 81.3% | - |
| San Antonio | 45,189 | 53,266 | 8,077 | 84.8% | - |
| Crystal Springs | 43,737 | 68,953 | 25,216 | 63.4% | - |
| San Andreas | 15,746 | 18,675 | 2,929 | 84.3% | - |
| Pilarcitos | 1,974 | 3,125 | 1,151 | 63.2% | - |
| Total Local Storage | 185,223 | 240,689 | 55,466 | 77.0% | - |
| Total System Storage | 1,300,023 | 1,471,494 | 171,471 | 88.3% | 79.8% |
| Total without water bank | 730,023 | 901,494 | 171,471 | 81.0% | - |

Source: SFPUC

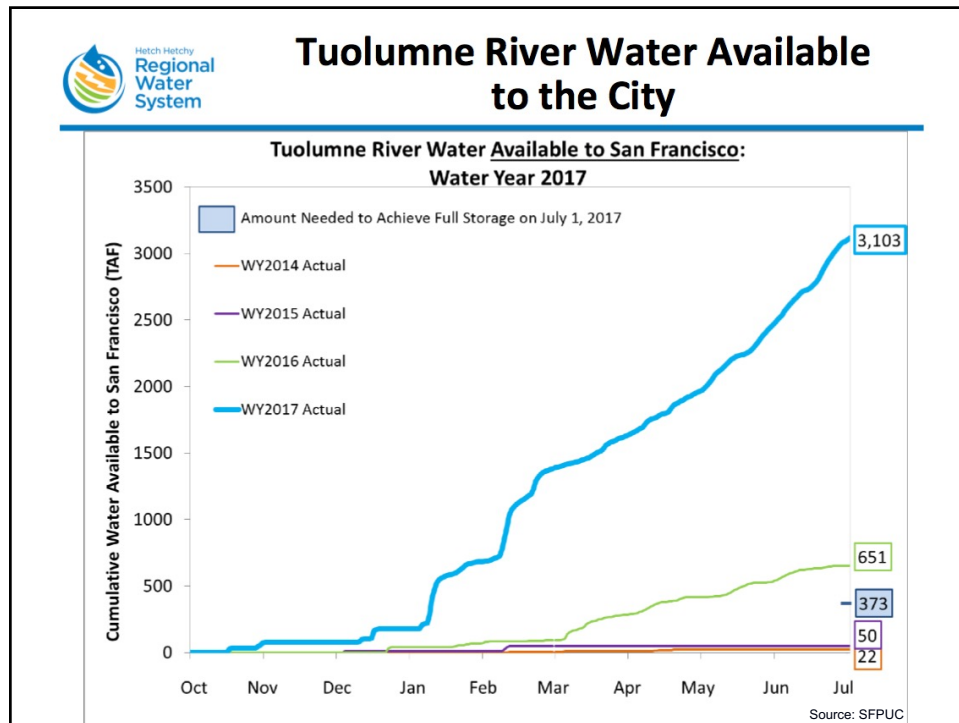
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SFPUC Tuolumne River Storage



During the 2012-15 drought, the water bank took the hit.
Hetch Hetchy was managed to remain close to full.
In 2016 (an average year) the water bank recovered quickly.

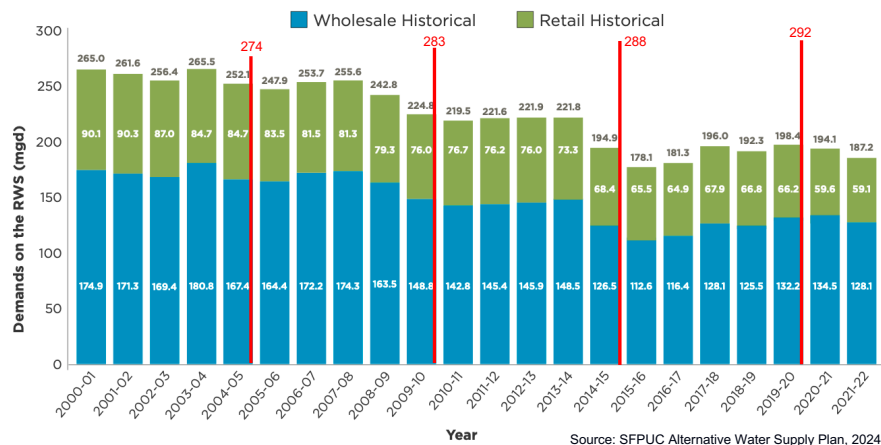
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9

2000 Urban Water Management Plan (UWMP) projections were much higher than actual demand

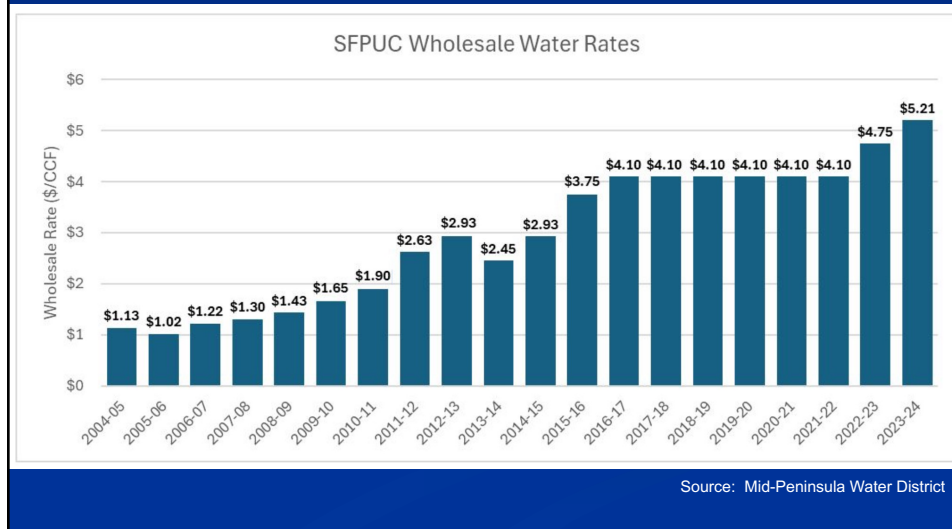
Figure 2-6: Historical Retail and Wholesale Demands on the RWS (2000-2022)



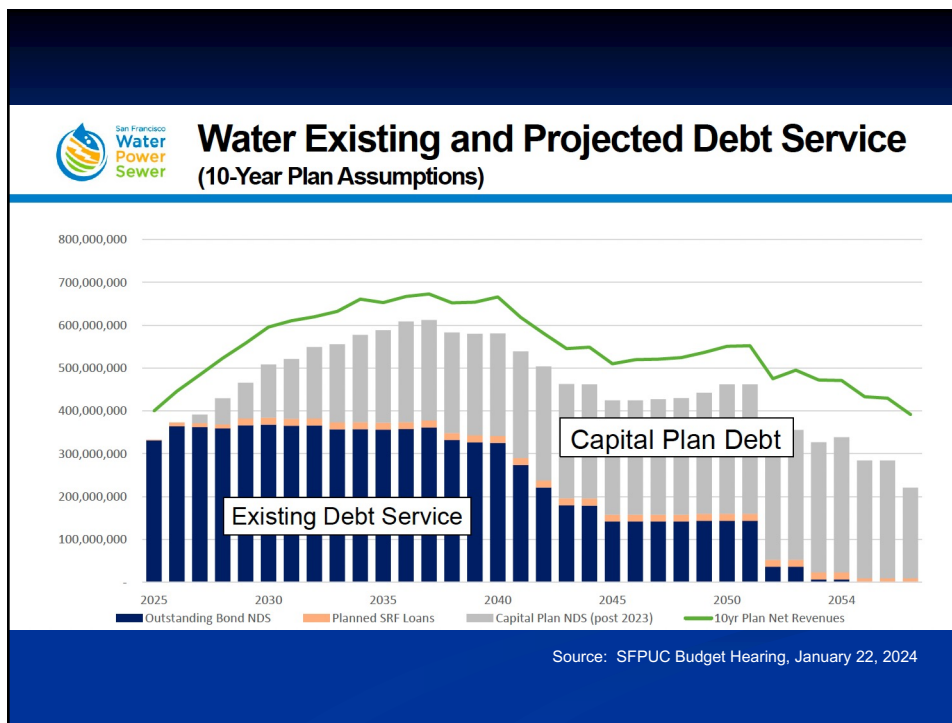
Red lines (added) are projections from the SFPUC's 2000 UWMP.

10

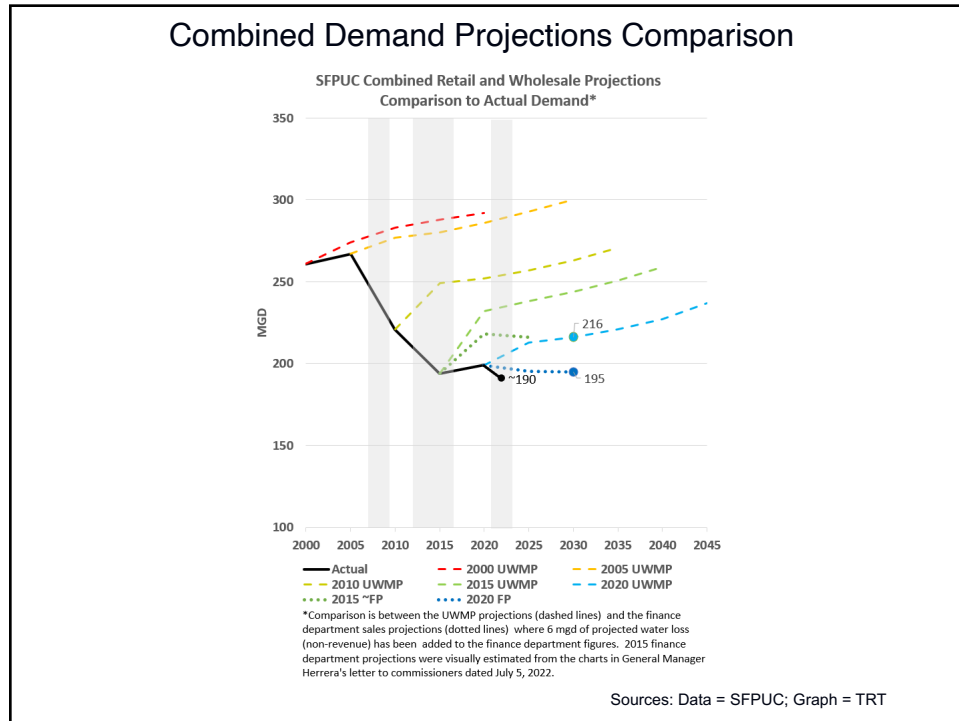
Water rates have quadrupled over the past two decades, primarily to catch up on deferred maintenance and to cover debt service



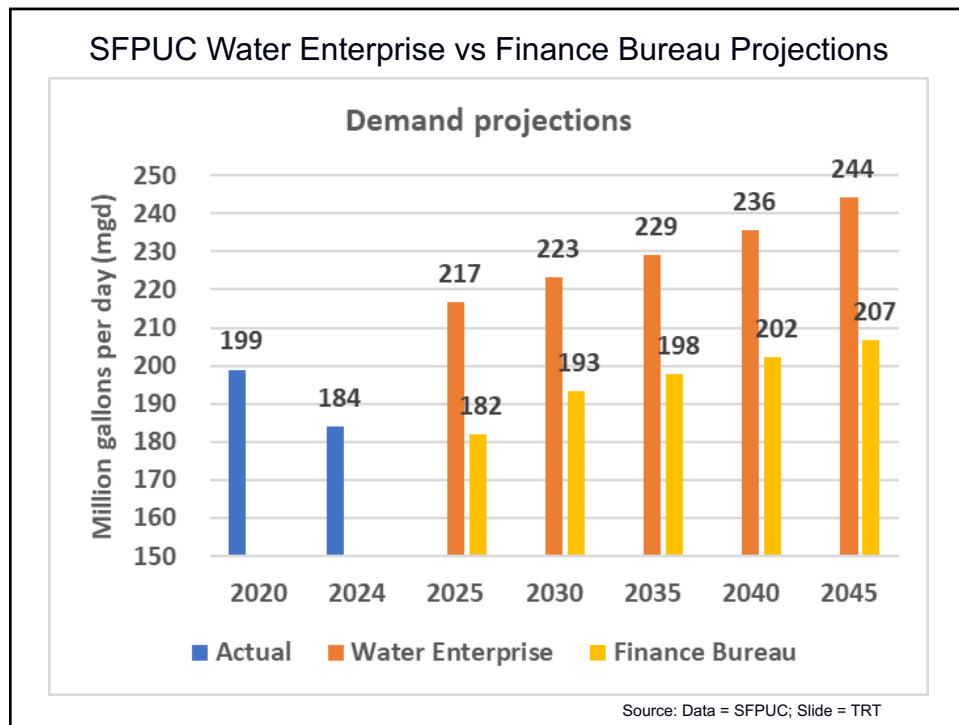
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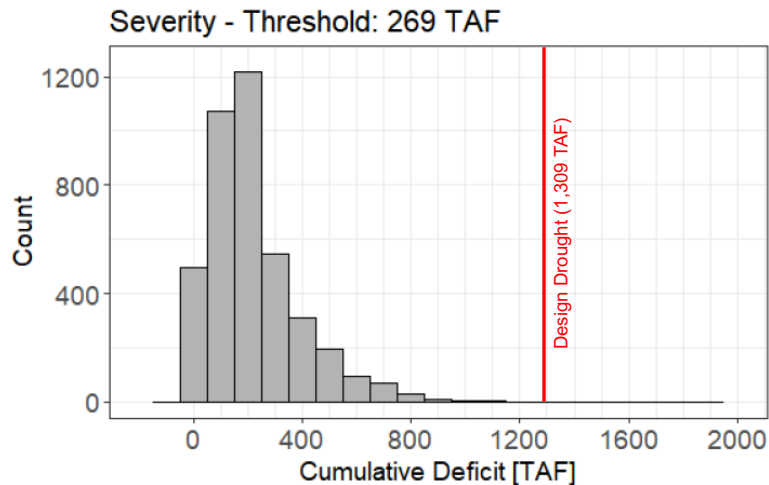


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14

The LTVA's most severe drought used less than 1,200 TAF of storage



Source: LTVA, Figure 3-29 (Design Drought added)

15

Drought Return Periods

How likely are droughts to occur?

Table 5-1. Effect of Precipitation and Temperature Change on the Return Periods Associated with the Severity of the Historic Droughts.

Return periods are round off to the nearest 5 years.

| Threshold [TAF] | Drought Event | Changes in Precipitation | | | Changes in Temperature [°C] | | |
|-----------------|---------------|--------------------------|------|------|-----------------------------|-----|-----|
| | | 0% | -10% | -20% | 0 | +2 | +4 |
| 269 | 1976-1977 | 100 | 45 | 25 | 100 | 105 | 130 |
| | 1987-1992 | 420 | 120 | 45 | 420 | 495 | 675 |
| | 2012-2015 | 180 | 70 | 35 | 180 | 200 | 260 |

Source: LTVA

Numbers represent how many years might be expected to pass between droughts as severe as those listed. The LTVA projects "no clear direction of change in mean annual precipitation over the planning horizon."

The LTVA did not include a return period for the Design Drought, and the SFPUC will not say what it is.

16

A 2020 document uncovered through a Public Records Act request suggested the return period for the Design Drought might be 25,000 years.

Return periods of historical drought

| Drought Event | Deficit (TAF) | Duration (Year) | Return Period (Year) (best estimate and 95% confidence interval) | | |
|----------------|---------------|-----------------|---|-------------------------|-----------------------------------|
| | | | Deficit | Duration | Deficit and Duration |
| 1976-77 | 517 | 2 | 217 (188; 255) | 30 (29; 31) | 316 (273; 371) |
| 1987-92 | 797 | 6 | 1,456 (1,031; 2,140) | 486 (422; 563) | 20,406 (14,589; 29,851) |
| 2012-16 | 752 | 4 | 1,093 (820; 1,520) | 121 (110; 133) | 4,250 (3,190; 5,899) |
| Design Drought | 1,309 | 8 | 25,293 (12,940; 56,679) | 1,954 (1,620; 2,376) | 1,371,578 (720,390; 2,997,390) |

Source: "Hydrological Drought Frequency Analysis for the Upper Tuolumne River," 12/8/2020

17

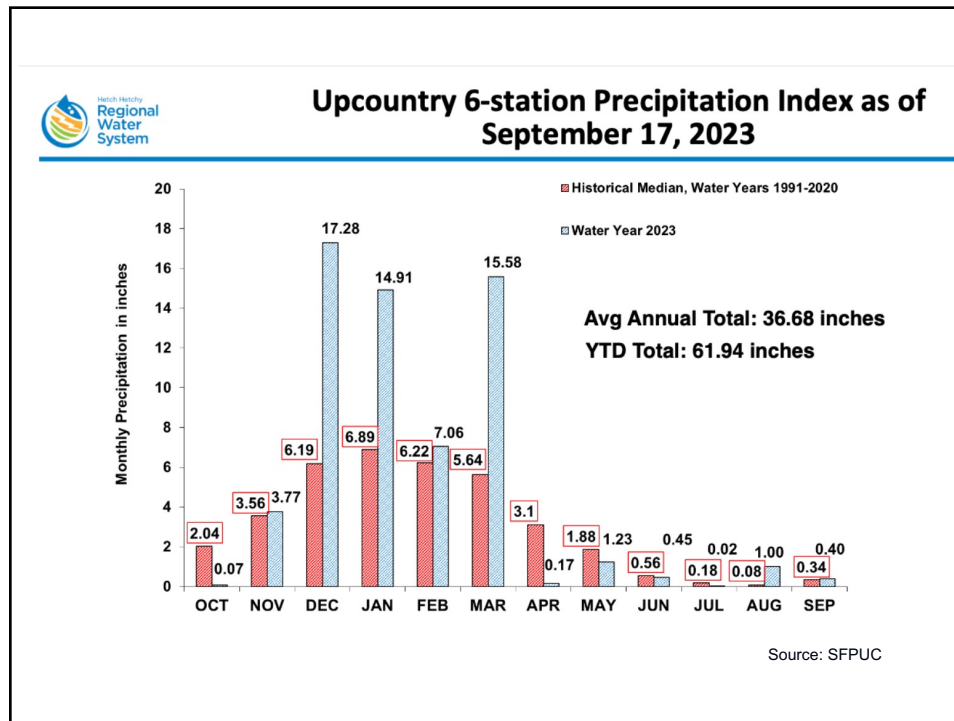
The final LTVA adjusted the return periods for the known droughts downward significantly, suggesting the same should be done for the Design Drought.

| Drought Event | 2020 Report | LTVA | LTVA / 2020 |
|----------------|-------------|--------|-------------|
| 1976-77 | 217 | 98 | 45% |
| 1987-92 | 1,456 | 420 | 29% |
| Combined | 1,673 | 518 | 31% |
| Design Drought | 25,293 | 7,841* | 31% |

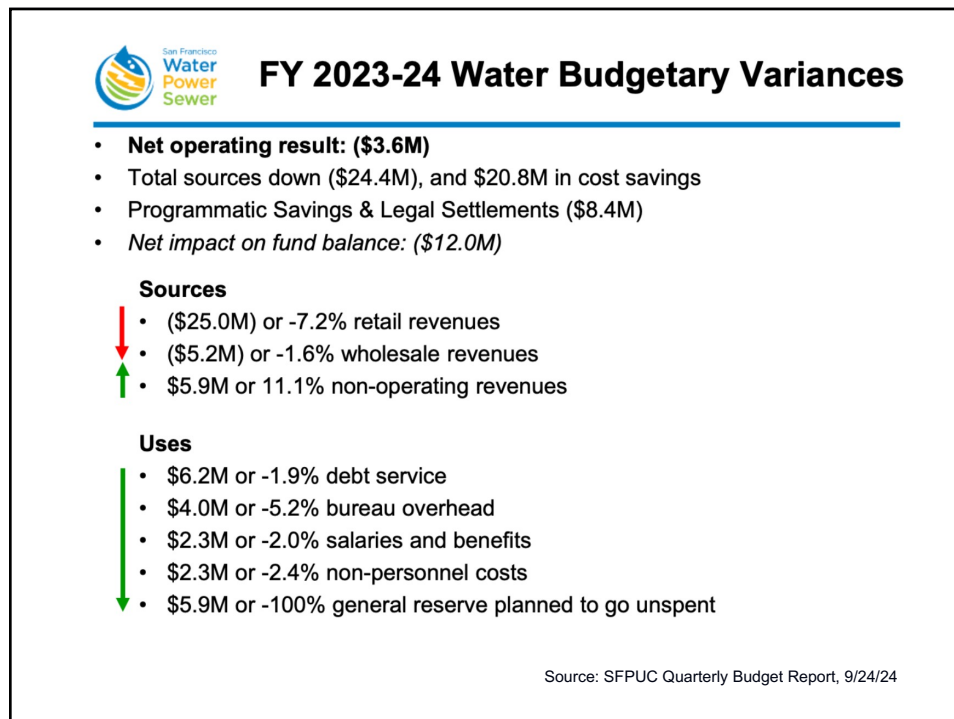
*An adjusted return period for the Design Drought, based on 31% of the return period listed in the 2020 report, suggests it might occur once in 7,841 years.

Note: The return period for the Design Drought at current demand would be considerably longer because both the 2020 report and the LTVA used 240 mgd as demand (23% higher than the 2021 demand of 195 mgd).

18



19



20



FY 2023-24 Wastewater Budgetary Variances

- **Net operating result: \$20.9M**
- Total sources down (\$21.3M), and \$42.2M in cost savings

Sources

- ↓ • (\$30.4M) or -7.3% sewer service charges
- ↑ • \$9.1M or 102.6% non-operating revenues

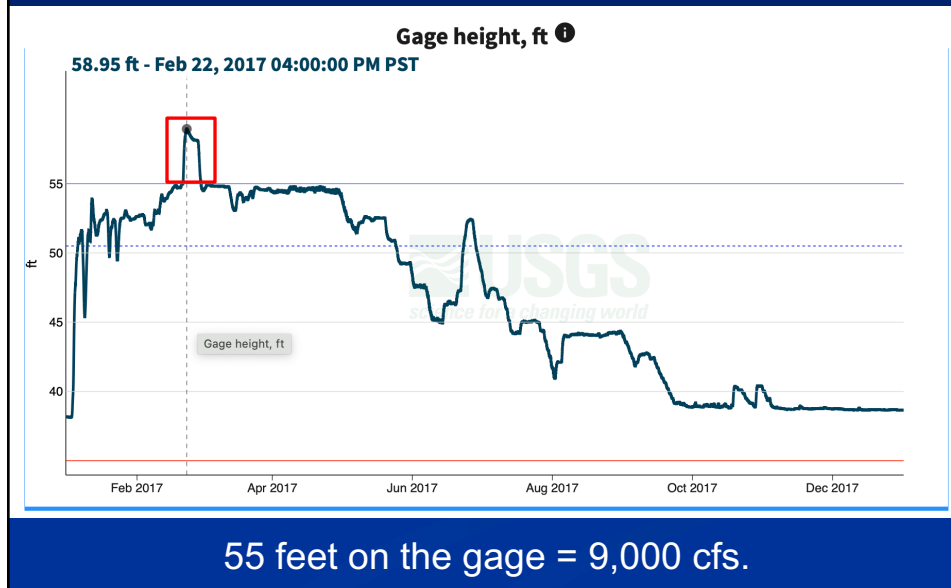
Uses

- ↑ • \$6.9M or -7.9% salaries and benefits
- ↑ • \$2.9M or -3.0% debt service
- ↑ • \$2.5M or -2.6% non-personnel costs
- ↑ • \$2.1M or -4.6% bureau overhead
- ↓ • \$27.8M or -100% general reserve planned to go unspent

Source: SFPUC Quarterly Budget Report, 9/24/24

21

2017 releases into the lower Tuolumne River



22



Hetch Hetchy Regional Water System

Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 13th Floor

San Francisco, CA 94102

T 415.554.3155

F 415.554.3161

TTY 415.554.3488

May 12, 2025

Councilmember Greer Stone
City of Palo Alto
250 Hamilton Avenue
Palo Alto, CA 94301

Councilmember Stone,

Thank you for your recent undated letter containing questions related to our water supply planning.

As a regional water provider, we work diligently to ensure critical water supply is available to our customers now and into the future, in consideration of drought and climate change as well as new regulations that may impact our water supplies.

To address regional water supply planning, the SFPUC works collaboratively with the Bay Area Water Supply and Conservation Agency (BAWSCA) to understand the interests and needs of our wholesale customers, and the residents and businesses they serve. This effort ensures our cooperative planning addresses the needs of the 1.8 million residents and thousands of businesses who depend on the Hetch Hetchy Regional Water System for their health and wellbeing. The SFPUC looks to BAWSCA to gather current customer demand and future demand projections in alignment with the individual wholesale customers and their respective planning agencies.

Though we appreciate your questions, the SFPUC cannot effectively undertake water supply planning through response to individual wholesale customers, elected or appointed officials. Additionally, your questions request new analyses that are not available nor currently planned.

As we shared with Palo Alto's Utility Advisory Commission in November 2024, the SFPUC's design drought is a planning model utilized to assess how the Hetch Hetchy Regional Water System will perform under drought conditions worse than any we have experienced. There are no calculations on the return period of the design drought, as a return period has no relevance to the need to plan for a drought worse than any we have experienced.

The Alternative Water Supply Plan is also a planning document intended to examine the alternative water supplies needed to be developed to address dry year shortages in the regional water system. Spending on the Alternative Water Supply Plan currently

London N. Breed
Mayor

Kate H. Stacy
President

Joshua Arce
Vice President

Avni Jamdar
Commissioner

Steve Leveroni
Commissioner

Dennis J. Herrera
General Manager

Services of the San Francisco Public Utilities Commission

OUR MISSION: To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.

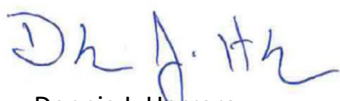


represents minimal annual expenditures, and future expenditures for construction of any alternative water supply project will be undertaken when water supply and demands are projected to require this new supply. Planning for projects related to recycled water or purified water takes considerable time, frequently decades. To ensure we have supply for our regional needs, we must prepare now so we can move projects forward when regional needs are fully developed.

What we do know is our Tuolumne River and local water supplies are limited and are not expected to grow over time. Through active and passive conservation by all our customers, the implementation of water efficient plumbing standards, and development of alternative water supplies that utilize the best water for specific end uses, we are amongst the most water efficient areas in California. However, we can only harden water demand so much. As our population continues to grow, and we face extended droughts and climate change, we must be prepared to respond to these new demands for the health and wellbeing of our future generations.

Thank you for your inquiry. We look forward to continued engagement through our work with BAWSCA on our regional water supply needs and planning.

Sincerely,



Dennis J. Herrera
General Manager

cc: Steven R. Ritchie, Assistant General Manager, Water, SFPUC
Tom Smegal, BAWSCA CEO/General Manager



CITY OF *From The Desk of Councilmember Greer Stone*
**PALO
ALTO**

General Manager Dennis Herrera
San Francisco Public Utilities Commission
525 Golden Gate Avenue
San Francisco, CA 94102

Dear GM Herrera:

The City of Palo Alto appreciated the participation of Steve Ritchie from your staff at our Utilities Advisory Commission (UAC) meeting on November 6, 2024.

Since then, the UAC has reviewed Palo Alto's One Water Plan (a roadmap for addressing potential water supply shortfalls) and is recommending the City Council reject the plan as is. They are concerned that the impetus of the plan (Palo Alto might experience 50% rationing at some point) is unreasonable, and that before committing to large-scale investments in alternative water supplies, we should feel confident they are needed. The City Council has yet to review the plan and discuss further the UAC's recommendation, but your assistance in answering the following questions would be helpful in our future decision making.

The UAC is recommending that we request the following information from the SFPUC to help inform our decision.

1. What is the return period of the design drought and the calculations behind it? Please also provide sensitivity analyses evaluating the impacts of two less severe design droughts on the return period, the water supply deficit, and associated financial impacts (costs). The first alternative design drought would simply remove the final year from the current design drought. The second would replace the 1976-1977 drought in the current design drought with the average water supply deficit during the 1987-1992 drought.
2. What is the impact of using lower demand projections (including the SFPUC's Finance Bureau assumptions and projections informed by BAWSCA's 2022 demand study low scenario) on the potential water supply deficit? How would these lower demand projections influence the SFPUC's Alternative Water Supply Plan and associated revenue requirements and cost/acre foot to wholesale customers?
3. How would the combination of the two less conservative design droughts and lower demand projections influence potential water rationing and the need to pursue alternative water supplies?
4. Using current demand and the three droughts presented in the Long-Term Vulnerability Assessment, what would the low point of the SFPUC's total system storage have been had the Bay Delta Plan been in affect at the time of those droughts?



CITY OF *From The Desk of Councilmember Greer Stone*
**PALO
ALTO**

We would appreciate responses to these questions by the end of April to help us with our long-term financial planning.

Thank you for your attention,

A handwritten signature in black ink, appearing to read 'Greer Stone', with a long horizontal flourish extending to the right.

Greer Stone, Palo Alto Councilmember
BAWSCA Director

California's second-largest reservoir fills for third straight year

San Francisco Chronicle | May 23, 2025 | Kurtis Alexander



The Lake Oroville reservoir in Butte County, shown at the Bidwell Bar Bridge in 2023, has filled to capacity for the third straight year. Carlos Avila Gonzalez/S.F. Chronicle

California's second-largest reservoir, Lake Oroville, reached capacity Friday, hitting the high water mark for the third straight year — a first for the 57-year-old reservoir.

The milestone comes after a moderately wet winter in California, with enough snow in the mountains, particularly in the north, to melt and flush substantial water into state reservoirs. This week, water storage in California's major reservoirs stood at a comfortable 116% of average for the time of year, ensuring decent supplies for the rest of 2025.

At Lake Oroville, about 70 miles north of Sacramento in Butte County, water levels rose Friday morning to within inches of the 900-foot elevation mark that state water managers deem full pool, prompting notice that the reservoir had hit capacity. At capacity, the lake holds 3.4 million acre-feet of water, enough to supply more than 7 million households for a year.

The lake's supplies are at the heart of the State Water Project, a network of nearly two dozen dams and reservoirs run by the California Department of Water Resources. The state facilities provide drinking water for 27 million people, mostly in the Bay Area and Southern California.

"Full reservoirs allow DWR to help meet the needs of the State Water Project contractors and their customers this year as well as provide some water supply next year in the event that dry

conditions return,” Raquel Borrayo, a spokesperson for the Department of Water Resources, said in an email.

This past winter was the third straight with near- or above-average rain and snow in California. Accordingly, reservoirs have fared well, and statewide water supplies have remained robust.

Still, water managers encourage people to conserve, pointing out the fickle nature of California weather and water. Just four years ago, severe drought pushed Lake Oroville to its lowest point since the reservoir began operating in 1968.

Managers of the State Water Project have said they plan to deliver 50% of the water that contractors have requested this year, choosing to remain relatively cautious.

California’s largest reservoir, the federally run Shasta Lake, also hit capacity this spring. The Bureau of Reclamation-managed Central Valley Project, which supplies water to mostly agricultural users, is similarly planning to provide 50% of the water requested to the bulk of its contractors.

#

Spilling reservoirs and empty basins – California’s storage dilemma

Maven Notebook News and Features | June 5, 2025

Climate Change is bringing warmer and wetter storms, reducing our snowpack and increasing the need for more storage. At the same time, extended droughts have contributed to the over-pumping of our groundwater basins, leaving ample storage space for new water supplies, provided we can get the water to them. How is California managing its water storage dilemma?

At the April meeting of the Southern California Water Dialog, Jeff Mount with the PPIC, Tim Godwin with DWR, and Aaron Fukuda with the Tulare Irrigation District and Mid-Kaweah Groundwater Sustainability Agency discussed water storage in California, both surface and groundwater, and how groundwater recharge is a critical tool for long-term sustainability.

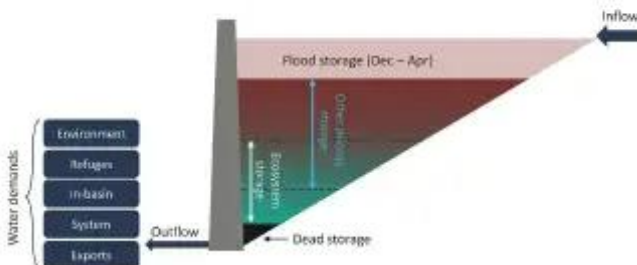
WATER STORAGE IN CALIFORNIA

Dr. Jeff Mount, a senior fellow at the PPIC Water Policy Center, began the presentations by discussing California’s water storage.

California wouldn’t exist without surface storage; the state’s 1500 dams and reservoirs are the backbone of the water supply grid. California reservoirs have a total capacity of approximately 40 million acre-feet – about one year’s supply. Most are 50-75 years old.

Surface Storage: Conflicting Demands

- Water Supply
- Hydropower
- Recreation
- Ecosystems
- Water Quality
- Flood Management

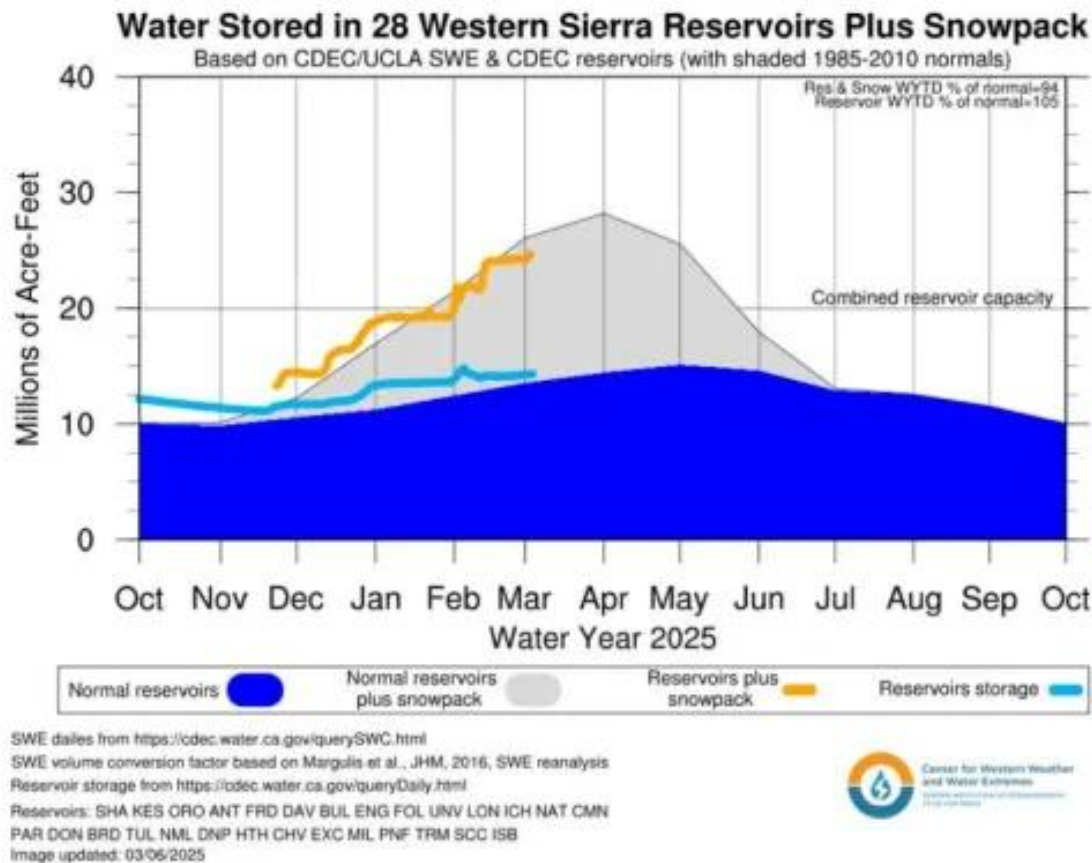


Source: Null et al. 2022. Storing Water for the Environment: Operating Reservoirs to Improve California's Freshwater Ecosystems.

Surface storage presents benefits and challenges, especially for large multi-purpose reservoirs like Shasta and Oroville. These dams serve various functions, including water supply, hydropower generation, recreation, maintaining downstream ecosystems, ensuring water quality, and managing floods. However, these objectives often compete with one another, complicating management.

“Five of those six objectives want a full reservoir,” said Dr. Mount. “One wants an empty reservoir, and the tension between those always drives issues, particularly on the large, multi-purpose reservoirs.”

Besides the reservoirs, 30% of California’s water supply is stored in the snowpack. The graphic on the left by Mike Dettinger shows the total amount in reservoirs plus the amount of water held in the snowpack, which illustrates how vital snowpack is to storage. Snowpack is the state’s largest surface reservoir – although the warmer temperatures associated with the changing climate alter and reduce the snowpack.



Groundwater is an essential component of the state's water supply; in a typical year statewide, roughly 30 to 35% of the water supply comes from groundwater, and during droughts, it is 65%, even as much as 70% in significant droughts.

"Groundwater is our drought reserve," said Dr. Mount. "Unfortunately, we haven't treated it like that. We've treated it like our regular water supply. So we've been in chronic overdraft for almost the last century. The average overdraft in the San Joaquin Valley is as much as 2 million acre-feet per year. That is pretty significant."

Our updated analysis shows the uneven spatial consequences of groundwater water scarcity

- Without adaptations:
 - ~900,000 acres of lands fallowed, ~50,000 jobs lost, and a 2.3% decline in GDP
- More than 50% of lands would be fallowed in some areas, even in the wetter north

Share of cropland fallowed by 2040 with no trading



In 2014, California passed the Sustainable Groundwater Management Act with the goal of achieving sustainable groundwater management by 2040 for the critically overdrafted basins and 2042 for other basins.

“This is a painful process,” Dr. Mount said. “This is the most transformative legislation in the history of water since the modern water rights system was established in 1913. It is transformative but sets us up for a long-term sustainable future in water management. It’s just going to be really painful because it involves a lot of demand management and a big emphasis on improving groundwater recharge. Both are absolutely necessary.”

Demand management most often means taking land out of production. The PPIC has estimated that if not managed well, about 900,000 acres of land will have to go out of production in the San Joaquin Valley, with the loss of more than 50,000 jobs and a 2.3% decline in the rural counties’ GDP. He noted that’s a significant economic, social, and environmental issue.

Cities and farms rely on California’s elaborate conveyance system to move water hundreds of miles from the Delta, the Colorado River, and the Owens Valley.

“This long distance transport is because we decided to put our people and most of our crops in places where it doesn’t rain, so we have to move water at great distances in California,” said Dr. Mount. “So you can’t lose sight of the fact that that infrastructure is essential to basically making this work.”

The age of large dam construction projects is over, he said. While some reservoirs, such as Sites, are being considered, it’s not anything like the dam construction that occurred in the mid to late-20th century. All the good spots have been taken; the rest are too expensive. When constructed, the Prop 1 storage projects, a mix of reservoirs and groundwater projects, would only increase storage capacity by 7% at best.

However, groundwater storage offers immense potential for increasing California’s water capacity. Depleted aquifers in the San Joaquin Valley alone hold over 100 million acre-feet of available space—more than two and a half times the total capacity of the state’s surface storage infrastructure.

“If we do a much better job of wet year management to get us through the dry years, it really will help,” said Dr. Mount. “It will not solve the groundwater overdraft problem that we have now; that’s got to come with demand management as well as investments in improvements in conveyance, but we really do have this opportunity to substantially improve how we store water in the ground. It is much less expensive and certainly easier to permit than building new surface reservoirs. You don’t lose it to evaporation. There are always benefits associated with groundwater recharge that we think we at PPIC feel very strongly is a place we need to put a lot of effort into.”

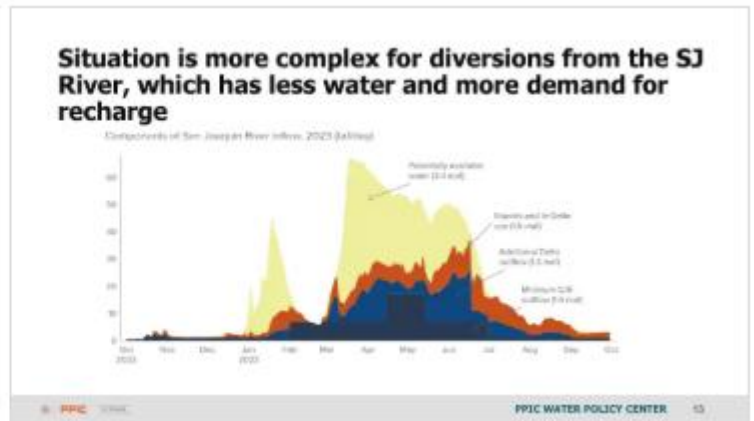
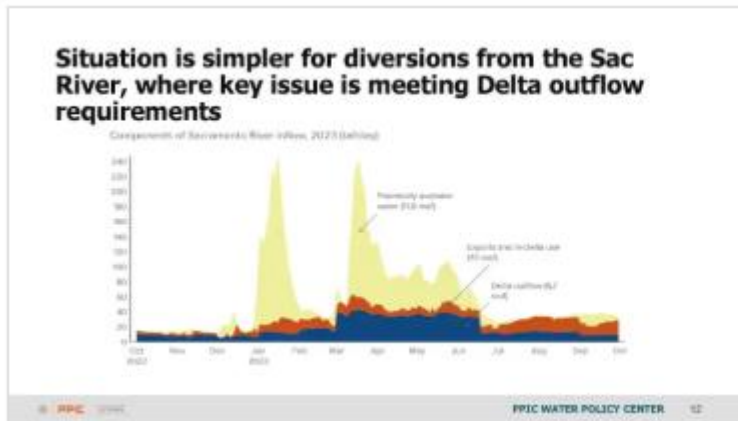
GROUNDWATER RECHARGE IN THE CENTRAL VALLEY COULD AFFECT WATER DELIVERIES TO SoCAL

Dr. Mount cautioned that filling available groundwater storage could potentially affect State Water Project deliveries because the water would come from the Delta, the hub of the state’s water supply system and one of the most intractable management problems in California.

“Putting water in groundwater recharge reduces the amount of water that flows into the Delta, which has the potential to impact the amount of water that can be exported to Southern California from the Delta,” said Dr. Mount. “So there’s some trade-offs there that we have to worry about.”

Pumping from the Delta is complex, governed by rules and regulations that determine when water can be exported and how much, and water used for recharge in the San Joaquin Valley would affect that.

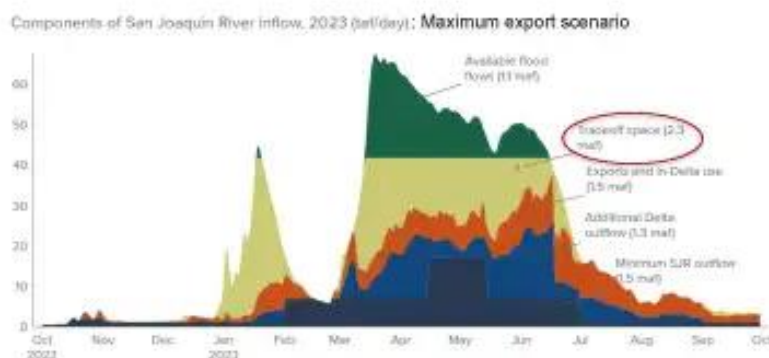
To illustrate the issue, Dr. Mount presented data from 2023, a very wet year. From the north, the Sacramento River flows into the Delta and out to the San Francisco Bay. The dark blue shows what was required for Delta outflow, the rust color is in-Delta use and exports, and the yellow is the waters potentially available for groundwater recharge in the Sacramento Basin – about 11 MAF, per the PPIC calculations. “That’s 11 times the amount of water that you would hope in a good year to get out of the Delta, so that suggests the potential recharge is huge,” said Dr. Mount.



“The problem is that’s not where the empty aquifers are that we want to fill. Rather, it’s on the San Joaquin side,” he said, noting that in the same year, only 3.4 MAF was potentially available on the San Joaquin River.

“This is where the shortage is so strong and such a big issue,” he said. “It’s our most productive agriculture region, so the demands there are very, very high.”

With full (maximum) exports, most potentially available SJV water entails tradeoffs with exports



The problem is that potentially available water starts creating trade-offs. He explained that two categories of water flow into the Delta. One is water that we lack the capacity to capture; nothing can be done upstream or downstream as the reservoirs are full.

However, if folks upstream start taking a lot of water off the San Joaquin River, it can impact the amount that gets exported out through the State Water Project to Southern California. So that's why we call this trade-off water. And a lot of negotiation has to take place over this."

"The folks who regulate this are struggling with how to figure out who can take how much and when. So that trade-off water is actually a big, big deal and a major policy issue."

IMPLICATIONS FOR POLICY AND PRACTICE

Dr. Mount said that the balance between who takes how much water upstream and how much water downstream after water rights have been met must be worked out. Some upstream diverters might appeal to "Area of Origin" laws to make the case that they should have priority over export. "That's a really big issue that has to be worked out in policy discussions. Nothing that can happen overnight."

"We estimate roughly, you could have, easily, without impact to anybody, have put 600,000 acre-feet of water into storage upstream of the Delta on the San Joaquin, both in 2017 and 2023, very wet years, probably more than that."

So if there is a relationship between the exporters and the upstream users, in wet years when exporters run out of places to put their water, it can be put into groundwater. "This is why we're really encouraging recharge partnerships between the exporters you rely on in Southern California and the upstream diverters."

TIM GODWIN: Expanding recharge through sustainable groundwater management

Tim Godwin, Supervising Engineering Geologist at DWR, then discussed how DWR is working to expand groundwater recharge.

California's water system was designed for a hydrology that has fundamentally changed. As the graphic below shows, historic patterns of floods and droughts have shifted dramatically. Intense droughts are now more frequent, punctuated by very wet periods that are becoming even wetter and arriving more rapidly. Warmer temperatures carry more moisture into the mountains, but instead of falling as snow, it increasingly comes down as rain. This, combined with the rising temperatures, reduces the snowpack's ability to last into the warmer months. What was once a steady and manageable runoff has now become an unpredictable and less reliable water supply.

These changes present multiple challenges: Growing agricultural, urban, and industrial water demands, coupled with changing hydrology marked by reduced snowpack, early melts, and extreme weather, are straining water resources. Limited surface water storage, designed for persistent snowpack and flood control, prioritizes purging dangerous flows, disrupting natural recharge. Expanding groundwater storage faces challenges like water quality, infrastructure needs, usage rights, and equity. Groundwater management must address overdraft, subsidence impacts, well dewatering, and water quality issues.

To address these challenges, Governor Newsom has put forward the [Water Resiliency Portfolio](#) and the Climate Adaptation Strategy, which highlight the need to look at the state's water resources holistically and bring all management strategies to the table as potential actions. The Water Supply

Strategy set a target of an additional 500,000 acre-feet of groundwater recharge, but Mr. Godwin said we can do a lot more, and we need to do a lot more.

“We need to expand this concept and learn how to capture our flood flows when they’re there and distribute them safely across the landscape, where they can infiltrate into our groundwater basins,” he said. “That can be a highly engineered process through injection wells, but the easiest is infiltration galleries or concepts like Flood MAR where we take large flood waters and distribute them over agricultural or open lands and allow them to percolate naturally into the system.”

HOW THE STATE IS WORKING TO INCREASE GROUNDWATER RECHARGE

The Water Supply Strategy sets a target of 4 million acre-feet of new groundwater and surface storage by 2040 as the state works to shift the management strategy from reliance on a persistent snowpack that lasts well into the season to a strategy that capitalizes on the water when it is available and where it is available.

To achieve the goal of adding 4 million acre-feet of new groundwater and surface storage, California has implemented several actions. During the wet 2022-23 winter, the Governor issued executive orders to accelerate groundwater recharge on open and working lands by amending Water Code 1242.1. This modification allowed water to be diverted during locally determined imminent flood threats. By channeling excess water into irrigation ditches and spreading it across open lands, flood pressures were reduced, and surplus water was stored in the groundwater system. Additional executive orders suspended CEQA requirements for local groundwater recharge projects and introduced other streamlining measures.

The state is also investing significantly in groundwater management. The Department of Water Resources (DWR) has allocated over \$500 million to Groundwater Sustainability Agencies (GSAs) for plan development and recharge projects. Further funding is coming through Proposition 4, the climate change bond, which supports groundwater initiatives, and the Multibenefit Land Repurposing Program to assist regions in retiring farmland to meet sustainability targets. Additionally, the State Water Board has established an expedited process for groundwater recharge permits, offering temporary and standard water rights to facilitate these critical efforts.

HOW MUCH HAS BEEN CAPTURED?

Water Code Section 1242.1 allows for capturing the flood flows when there is no water right, and the flows are well in excess of any claimed water rights.

In 2023, over 400,000 acre feet were diverted to 90,000 acres and into storage. Significant surplus water was moving through the State Water Project and Central Valley Project. However, in 2024, no water was diverted during flood conditions, and in 2025, only 500 acre-feet was captured. Mr. Godwin attributed the low numbers to folks being unprepared, so DWR has been working with GSAs to provide technical and regulatory guidance for using flood waters for groundwater recharge.

In 2025, the State Water Project captured an additional 16,000 acre-feet through the storm flex provisions included in the State Water Project’s 2024 federal and state Endangered Species Act permits, which allow for additional water supply diversion when certain ecological conditions are met during storms.

“However, had the Delta Conveyance Project been in place during Water Year 2025, we would have been able to move an additional 700,000 acre feet out of the Delta into storage and into our groundwater basins,” said Mr. Godwin. “Because we don’t have that piece of infrastructure, that’s the dichotomy between the Sacramento River and the San Joaquin River systems. The Sacramento was flooding and high flows and lots of water, but we couldn’t capture it because of the water quality and ecosystem rules around the pumping plant adjacent to the San Joaquin River. So it’s very important for added flexibility through improved conveyance structures like the Delta Conveyance Project. These are opportunities where we can capture more water when it’s available and where it’s available.”

Expediting Flood Diversion and Recharge: Actions

➤ Water Year 2023

- EO N-4-23 and N-7-23
- Over 400 TAF of Flood Water Diverted on 90,000 Acres
- Over 4 MAF of Managed Recharge Reported in SGMA Annual Reports, not including Adjudicated Areas
- Significant Surplus water moved through SWP/CVP facilities to local entities
- Flood Diversion and Recharge Enhancement Initiative

➤ Water Year 2024

- 1242.1 Enacted: 0 AF Diverted

➤ Water Year 2025

- 1242.1 + EO N-16-25: 499 AF Diverted
- SWP Storm Flex = additional 16 TAF Captured
- Delta Conveyance Project could have captured 700 TAF
- WY 24 SGMA Annual Reports due 4/1

➤ Future Water Years

- DCP, SGMA, and other water resilience projects



Lastly, Mr. Godwin emphasized the critical need to address land subsidence in the Central Valley, as it compromises conveyance systems and reduces the capacity to move water effectively. He stressed the importance of establishing clear regulations for long-term groundwater banking to mitigate subsidence while also ensuring resilience against prolonged droughts.

AARON FUKUDA: Recharge – Above, Below, and Beyond

Aaron Fukuda is the general manager of the Tulare Irrigation District and interim general manager of the Mid-Kaweah Groundwater Sustainability (MKGSA) agency. In his District, SGMA compliance is all about recharge, he said.

The Tulare Irrigation District, established in 1889, serves approximately 65,000 irrigated acres. The District comprises roughly 200 small farms, averaging 300 acres each, with numerous dairies relocated from Southern California. The primary crops include walnuts, almonds, pistachios, corn, wheat, and alfalfa.

Three hundred miles of earthen canals deliver surface water across the District. These canals play a crucial role in the recharge system by allowing surface water to percolate into the groundwater. Additionally, the District manages around 1,300 acres of recharge basins, actively utilized during the winter months.

On average, the District’s surface water supply totals about 150,000 acre-feet annually, derived from pre-1914 water rights on the Kaweah River and 30,000 acre-feet from the Central Valley Project. Wet-

year supplies include 141,000 acre-feet of Class 2 water; however, even in the best years, only about 50% of this Class 2 allocation has been delivered.

THE ROAD TO SGMA COMPLIANCE

The District’s first groundwater sustainability plan in 2020 focused on building projects first and then demand management second. “We’re going to lead with projects,” said Mr. Fukuda. “We’re going to build more of them, and then whatever we can’t fix with projects that small amount we hoped we would eliminate through demand management or allocation.”

That plan was submitted to DWR and ultimately rejected; however, even before the determination from DWR came down, they had already acknowledged the plan would not work.

So the plan now is demand management; the GSA is leading with allocations and cutbacks and then projects – meaning, if we add more projects, there’s less demand management needed. “This was not popular at all,” Mr. Fukuda said.

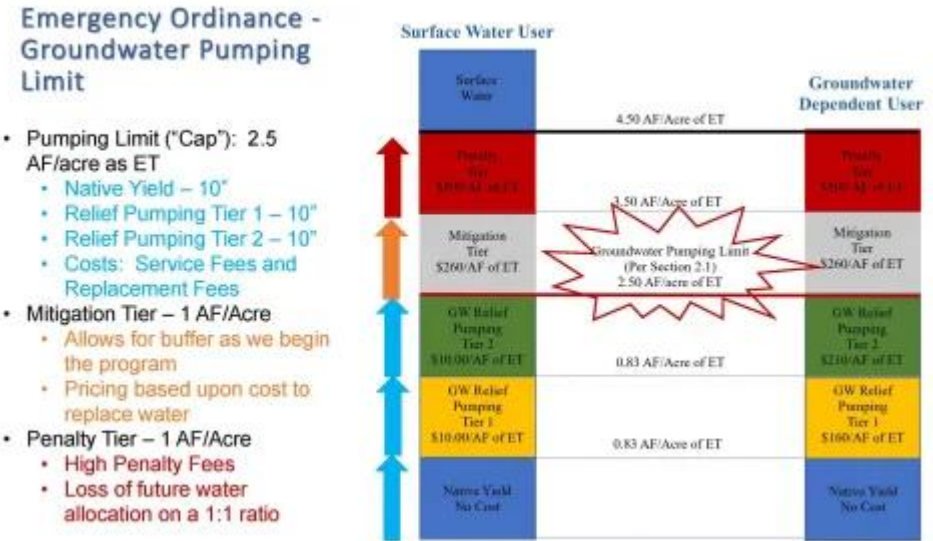
In 2022, the District introduced a groundwater allocation and cap designed to manage resources more effectively. Water users are divided into two categories: those with access to surface water and those relying exclusively on groundwater. The groundwater accounting system, available to growers online, tracks the

native yield or the shared groundwater supply as well as the surface water recharged into the system that is available for future extraction. To enforce the cap, the penalties for exceeding allocations are strict. Growers who exceed their limit face a fine of \$500 per acre-foot, the maximum permitted under SGMA, and any overage is deducted from their allocation for the following year.

“Our program is predicated on the assumption that you only get to take out what you put in,” he said. “If you’re not putting anything into the groundwater system, all you get is the native yield, which is a very small amount – about 10 inches per acre of groundwater.”

Initially, the system faced resistance, but in December 2022, when a series of atmospheric rivers arrived, farmers were encouraged to open their turnouts with the incentive that doing so would lead to an increase in their allocations.

“Within 24 hours, we had basically doubled our sinking capacity in the fields with a phone call and an email,” said Mr. Fukuda.



They filled up the entire canal system, all of the recharge basins, and flooded fields. “It was the highest diversion rate we’ve ever had in our record,” he said. “We diverted about 200,000 acre feet to the fields. Groundwater levels rebounded tremendously during that period, some as high as 30 to 40 feet.”

DEVELOPING THE RECHARGE GAME PLAN

The GSA has utilized Airborne Electromagnetic Surveys (AEM), a technology used to map subsurface characteristics, to gain a deeper understanding of the lithography of the subbasin using SkyTEM at the subbasin level and TowTEM at the field level.

The data collected serves multiple purposes, including confirming subsurface conditions, enhancing the efficiency of on-farm recharge programs, increasing the sinking capacity of existing recharge basins, providing valuable textural input for groundwater models, and assisting in selecting locations for new groundwater monitoring wells.

PLAN FOR THE FUTURE

Tulare Irrigation District’s plan for the future includes continuing to use existing recharge basins and develop multibenefit projects to aid disadvantaged communities and/or habitat restoration, continuing to develop and enhance the on-farm recharge, and implementing small-scale banking to replace groundwater in areas experiencing subsidence.

Going forward, partnerships will be key. “Our most exciting project is in partnership with the Water Blueprint and Southern California,” said Mr. Fukuda. “It is a large regional groundwater banking operation in the west area of our subbasin, where we have a huge holding capacity, and we’ll set up retired farm ground into large recovery systems where we can put the water in the ground and recover it. ... We have supplies in the San Luis reservoir that we can’t get over to our east side, so we would trade that water to Southern California in dry years and bank the water on the west side. And we think it’s a fantastic opportunity for us to partner with other folks, including Southern California, on a large regional banking project.”

“None of this gets done without the support and the partnerships that we have. Largely the support comes from the growers and the landowners. They’re the ones that are doing this. I’m just the one telling the story. The partnerships with DWR, the State Board, PPIC, Sustainable Conservation, and others are leading the way in helping us understand what we’re doing, what we need to avoid, and what we need to pay attention to. This is a statewide effort, and I’m happy to be a part of it.”

Question: Why doesn’t the state limit what farmers can plant?

During the Q&A, the question was asked, given the tight water supplies, why doesn’t the state limit the amount of certain crops, like almonds, that farmers can plant? Here’s how the panelists answered.

Tim Godwin, Department of Water Resources, said: “The policies of the state and the laws we have dictate that land use decisions are made at the county level, and the counties have the authority to evaluate how they want to lay out land use practices. So, there is the pathway, but most haven’t. Most have allowed the agricultural communities to figure out what the best commodities are with the growing conditions and the water resources there.

Jeff Mount, Public Policy Institute of California, said, “We’ve spent a great deal of time looking at what the future of the San Joaquin River and South San Joaquin basin looks like, and I would be remiss if I did not channel my inner economist here, who says it’s the farmers who do the best job of working this out. Sometimes, they make mistakes; it’s a risk-based industry. When almonds were fetching such a tremendous return as the commodity prices were high, we probably over-planted those. But that happens in agriculture all the time, and it self-corrects.”

“But in this case, we now have this added burden of trying to come to balance with the use of water. And we have argued repeatedly that really smart choices here during how you retire some lands, and water markets, definitely. With an organized transition, you can really reduce the economic impact in the valley. And that’s why we keep saying that the people who work that out best of the farmers, but it must be at the county level. There’s got to be a tremendous amount of coordination at the county level to get that to work.”

Aaron Fukuda, Tulare Irrigation District, said, “We were the last state to implement a groundwater. So, prior to that, you could buy a piece of ground and put what you wanted on it. And you’re right. The county could have had some regulations on cropping, but we don’t operate that way.

“There were large companies that were coming in, and if you’re a large corporation, you have a big portfolio of investments. You’re buying ground for \$1,000 an acre and getting a grant from the state to put in a drip system because that was the big deal – let’s efficiently create agriculture. ... So corporate America came into California like you couldn’t imagine. They bought up that white area (undistricted or groundwater-dependent areas). It was cheap ground. They could get a grant for a drip system. They could put in an almond orchard; if they lost money for the first three years while the crops were coming up, they just wrote that off against other things. It’s just a write off at that point; then they get in the money. So the only people that will survive California agriculture is corporate farming.

“Our small growers, if you go to them right now, they’re done. They’re out of here. Our small growers are either consolidating or selling out to bigger corporations. So we have a concern. The opposite is giving some tools and flexibility. My goal in our subbasin is to give our growers as many tools in their toolbox as they can and let them go to work. Because if you can imagine, if you run an 80-acre plot of trees, that’s 1000s of individual biological units, you have to take care of. I’m not doing that. I can’t even do my vegetable garden. So, so long answer, sorry, but I’m passionate about it.”

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New high-tech maps developed by Stanford could fast track groundwater recharge: Here's how it works

KGO | June 1, 2025 | Spencer Christian and Tim Didion



New high-tech maps by Stanford could fast track groundwater recharge

Researchers at Stanford are hoping to jump start a water revolution in California by returning millions of gallons back into the ground in a new way.

SAN JOSE, Calif. (KGO) -- Researchers at Stanford are hoping to jump start a water revolution in California.

The goal is to rapidly expand the areas where we store water -- not by building reservoirs, but by returning millions of gallons back into the ground in a new and efficient way.

You could say San Jose is a city on the way up. We're not talking tech jobs or housing prices, but its geology.

A recent study found the elevation of San Jose has risen slightly over the decades, while dozens of other cities around the country are steadily sinking. One common factor is groundwater.

Just ask Jason Gurdak, hydrologist with Valley Water.

"Well, here in Santa Clara County, we've had subsidence that was first measured in 1915. We were actually the first city in the United States that had subsidence caused by groundwater over pumping," Gurdak said.

But, that early warning set water managers on a decades-long road to recharge. Valley Water manages a sophisticated system of ponds and groundwater injection wells to help replenish the area's aquifers. While sites, like the Laguna Seca basin at Coyote Valley are being conserved as open space, allowing additional stormwater to sink into the water table. These are long term strategies that are paying off.

"So, we've known about subsidence well before other cities, and we've been working with sustainable groundwater management through creating diverse water supply. These recharge facilities importing

water to raise the groundwater levels, and we've stopped subsidence by the 1970s. So today, there's no permanent subsidence in San Jose," Gurdak said.

And now, researchers at Stanford's Doerr School of Sustainability are hoping to use ground-breaking technology to expand groundwater recharge across California's Central Valley. Using airborne electromagnetic sensors that we first profiled here on ABC7 news, the Stanford team has been mapping what you could call the state's groundwater highways. Lead scientist Rosemary Knight, Ph.D., describes them as a loose, gravelly soils that allow the water to effectively reach the aquifers deep underground.

"We took those data and have now analyzed them to see what's below the surface, where they are sands and gravels that water can move down through. Where there are clays that would block that flow. And the kind of information, it gives us is an amazing view into the subsurface," says Knight.

And now, Knight and her team have turned that mapping into an open-source kit for planners, detailing up to 13 million acres of the Central Valley that may be optimal for recharge. It's an area that's been hit hard by sinking ground levels and collapsing aquifers.

"So the volume we can store underground is, like I said, 170 kilometers cubed, and that's about nine Lake Shasta's. There's 20% to 60% of the land area we've estimated to be suitable for recharge, and that comes down to between 2,000,007 million acres. So, we have the space. What we need is the willing landowners," Knight said.

She believes the data could help fast track recharge projects like this one we profiled along the Kings River. It allows farmers and ranchers to pinpoint fields and orchards that could be used to absorb diverted floodwater during heavy storm years, without damaging crops.

"So, the volume we're talking about, we can easily accommodate that extra or excess surface water in wet years. And, I want to be very clear on this point. When we talk about excess surface water, we're not stripping all the water from the streams, from the salmon, from the ecosystems. That's a very thoughtful estimate that says the environment is taken care of and our ecosystems have the water they need," Knight said.

The mapping does not currently include urban areas, because of restrictions on the aerial survey flights. But water managers in areas like Santa Clara County have also invested in their own research and point to the success of their recharge program.

"The geology makes all the difference. All of our research facilities are located on the edge of our groundwater basin, where we know there's more sand and gravel. So, the water that is in those recharge facilities easily can flow down to the aquifer and recharge the aquifer," Gurdak said.

It's a vision of stabilizing California's water future on a vast scale. It is recharging invisible reservoirs we will never see with water we desperately need -- the same groundwater that provides roughly 70% of the water used in the Central Valley during drought years.

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Governor Newsom Attempts To Fast-Track Delta Conveyance Project Water Tunnel *Zone 7 Supports Proposal, Which Faces Strong Opposition Elsewhere*

The Independent | May 29, 2025 | David Jen May 29, 2025



The Harvey O. Banks pumping plant in Byron currently serves as the only mechanism to lift Delta water, lower left, into the California Aqueduct. (Photo courtesy of DWR)

TRI-VALLEY — Gov. Gavin Newsom's latest budget revision, released May 14, includes a proposal to fast-track the Delta Conveyance Project — the 45-mile-long, 36-foot-wide tunnel that would carry water up to 6,000 cubic feet per second from the Sacramento River to the Bethany Reservoir near Mountain House. Previous project reports estimated its completion in 2045.

Among other changes, Newsom's proposal would eliminate certain deadlines from existing water-rights permits and narrow judicial reviews of future challenges against the project.

"For too long, attempts to modernize our critical water infrastructure have stalled in endless red tape, burdened with unnecessary delay," Newsom said in a statement. "We're done with barriers — our state needs to complete this project as soon as possible, so that we can better store and manage water to prepare for a hotter, drier future. Let's get this built."

In response, representatives of the 4 million Sacramento-San Joaquin Delta region residents have called for united opposition against the additional clause in the bill that would enable it to move forward without the normal guardrails in the approval process. The critics, who have formed the Delta Caucus organization, describe the project as too damaging and too expensive. They believe that other alternatives exist to address the state's water issues.

“The governor’s trailer bill would do far more than fast-track this unprecedented water-conveyance project. It would create an entirely new law specific to the State Water Project (SWP), allowing the state to perpetually hold onto water permits granted 50 years ago, despite the state’s failures to construct facilities, perfect its water rights, or pursue timely extensions,” Stephanie Safdi, director at the Yale Environmental Justice Law and Advocacy Clinic, said in a statement made at the Delta Caucus press conference and quoted in a press release.

Both the governor and the California Department of Water Resources (DWR) — which manages the design, construction and operation of the project — said the tunnel’s added flow capacity is a necessary adaptation to climate change, allowing the SWP to capture increasingly intense rain events to carry the state through longer droughts.

According to DWR, the SWP could have captured an additional 952,000 acre-feet of water, enough to supply 10 million people for a year, had the new tunnel been operational during the state’s most recent water year, which runs from October through May. Similarly, the SWP missed out on an average of 468,000 acre-feet of water per year during the previous three water years, the DWR stated in one of its fact sheets.

In addition, the DWR report notes that the location of the tunnel’s intakes, farther upstream than the SWP’s current delta intake, would also make the state’s water supply more resilient to earthquakes, fish migrations and saltwater intrusion from San Francisco Bay,

The SWP operates 20 reservoirs and some 700 miles of canals to supply water to the majority of California. Included is the Zone 7 Water Agency, which manages the Tri-Valley water supply. Zone 7 supports the tunnel project.

“What the Delta Conveyance would do for us is basically make (the supply) more reliable,” Zone 7 Director Sarah Palmer said. “We won’t have any more water rights. Nobody would have more water rights from that.”

Palmer added that Zone 7 receives up to 90% of its water from the SWP, tying the Tri-Valley’s water reliability to the SWP’s.

But opponents of the project have pointed to the possible consequences of diverting so much water from the Sacramento River. Legislators representing the Delta region spoke out against the project’s acceleration, calling it overly expensive and harmful to the tribal and natural resources in the Delta.

At a May 20 news conference for the Leaders of the Legislative Delta Caucus, State Sen. Jerry McNerney said, “The governor is saying it’s going to be \$20 billion, but we know it’s going to be a lot more than that; this cost is unaffordable.”

McNerney represents the 5th district, which includes Livermore, Pleasanton, Dublin and Sunol, as well as San-Joaquin County.

“The project would have to be paid for by ratepayers who are already overburdened with soaring utility costs and aren’t even aware of how the cost of this is going to impact them in their pocketbooks,” McNerney said. “The 45-mile-long tunnel project will destroy thousands of acres of prime farmland and the fragile Delta region.

“We call for the governor to bring this proposal through the regular legislative process, as any other policy. The Delta Caucus is urging the legislature and governor to pursue far less costly measures than the Delta Tunnel by increasing groundwater storage, expanding water recycling and improving water efficiency.”

McNerney serves as co-chair of the Delta Caucus. U.S. Congressman Mark DeSaulnier, whose district includes East Dublin along with cities within the Delta, joined Reps. Mike Thompson, John Garamendi, Josh Harder and Doris Matsui in setting forth the Delta’s plight.

“The Bay-Delta is one of the most ecologically significant estuaries on the West Coast and supports thousands of fishing jobs, vital agricultural lands, tribal and environmental justice communities, and some of the most vulnerable ecosystems in the state,” the group said in a statement. “From exacerbating water-quality issues for our local agriculture and wildlife to creating water scarcity, this project’s unintended consequences will be a calamity in our communities.”

While other tunnel opponents, such as the Sierra Club, have said that increased freshwater diversions would allow more saltwater in from the Bay and harm Delta communities, Palmer said that the new diversions would happen only during high-rainfall events. Although the DWR has yet to say how the governor’s change might affect the project timeline, a 2024 analysis estimated that preconstruction would span from 2026 to 2028, and construction from 2029 through 2044.

Palmer, who previously served as president of the Delta Conveyance Design & Construction Authority, stressed that the decision to build the Delta Tunnel is not an either-or question against other water projects.

“This project is not a standalone project; it’s not a project that’s going to be a silver bullet,” Palmer said, adding that the state must continue to maintain the Delta levees and explore other water-supply solutions, such as desalination, even with the tunnel. “It’s truly important to have redundancy, to have resiliency to answer to the challenges of climate change because they’re severe.”

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California's water security demands action, not more delays

Capitol Weekly | May 29, 2025 | Jennifer Pierre



The California aqueduct flows in Palmdale, California near Godde Hill road. Image by Jim Keller

OPINION – California's water infrastructure is buckling under the weight of inaction.

The State Water Project — the backbone of water delivery for 27 million Californians and 750,000 acres of farmland — is being pushed to the brink by climate change, extreme weather swings and seismic vulnerabilities. Without action, we're facing a future of increased water shortages, higher costs and diminished reliability for communities and farms alike.

The Delta Conveyance Project is the critical upgrade we need. It's a well-studied, extensively vetted and urgently needed modernization of the very infrastructure that underpins the health, safety and prosperity of much of California.

But despite its importance, the DCP has been stalled for nearly two decades by duplicative permitting, frivolous lawsuits and a maze of redundant bureaucratic hurdles — all while our climate risks mount and our water delivery system grows more fragile. That's why Governor Newsom's proposal in the May Revise budget to streamline administrative process is exactly the right move at exactly the right time.

This proposal doesn't greenlight construction or bypass environmental protections. It doesn't silence the public or shut out review. It's not even an exclusive benefit to the DCP. What it does is cut through broken processes that will help multiple state agencies and entities deliver critical infrastructure projects that have become more about delay than debate. It enables long-overdue planning and decision-making so that California can adapt before the next crisis hits.

The State Water Project supplies water at a scale and affordability no alternative can match. Desalination, recycling and groundwater storage are all part of the solution — and State Water

Contractors actively support and invest in these strategies — but they can't replace the volume or reliability of the SWP.

Opponents argue that this project only benefits corporate agriculture or development interests. That's false. The DCP protects water security for the vast majority of California's disadvantaged communities and supports public health, small businesses and food production. It helps cities and counties respond to both drought and flood, while also ensuring environmental protection for species and habitats in the Delta.

This isn't a proposal to revive the water projects of the past. The DCP has been significantly redesigned to be smaller, more efficient and more responsive to community and environmental concerns. It will allow water managers more flexibility to move water only when it's available — which helps protect fisheries and improve ecological outcomes in the Delta. We don't have this kind of operational flexibility with today's aging infrastructure.

According to the Department of Water Resources, the State Water Project could lose up to 23% of its supply in the next 20 years if we fail to modernize. Meanwhile, every year of delay on the DCP costs California water ratepayers an estimated \$500 million. We are hemorrhaging time and resources while our infrastructure grows more outdated and less resilient.

Governor Newsom's streamlining proposal restores balance and common sense. It enables the state to do what it must: prepare. It gives the Department of Water Resources the ability to complete critical planning and engineering work, efficiently and effectively, without the current layers of unnecessary duplication.

State legislators have a clear choice. Continue the cycle of gridlock and inaction or take a meaningful step toward water security for future generations.

We urge the Legislature to pass the Governor's proposal to reduce administrative delays for the Delta Conveyance Project.

Let's stop letting bureaucracy block progress. Let's cut through the noise and move forward. Our communities — and our future — can't wait.

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Jennifer Pierre is the General Manager of State Water Contractors, an association formed of 27 of the public water agencies and represents the legal, policy and regulatory interests of the State Water Project contractors, who are responsible for the capital and operations and maintenance costs of the SWP.

After half a century, California legislators on the verge of overhauling a landmark environmental law

LA Times | June 2, 2025 | Liam Dillon



Construction on a 48-unit apartment building at Crenshaw Boulevard and 54th Street in Los Angeles near the Metro K line in November. (Myung J. Chun / Los Angeles Times)

- Long celebrated and derided, the California Environmental Quality Act is facing its strongest overhaul in generations.
- Buoyed by national criticism that the state can no longer build sufficient housing and public infrastructure, Gov. Gavin Newsom and lawmakers said now is the time for major changes.
- Negotiations could lead to new laws taking effect within weeks.

When a landmark state environmental law threatened to halt enrollment at UC Berkeley, legislators stepped in and wrote an exemption. When the Sacramento Kings were about to leave town, lawmakers brushed the environmental rules aside for the team's new arena. When the law stymied the renovation of the state Capitol, they acted once again.

Lawmakers' willingness to poke holes in the California Environmental Quality Act for specific projects without overhauling the law in general has led commentators to describe the changes as "Swiss cheese CEQA."

Now, after years of nibbling at it, Gov. Gavin Newsom and the Legislature are going in with the knives.

Two proposals have advanced rapidly through the Legislature: one to wipe away the law for most urban housing developments, the other to weaken the rules for most everything else. Legal experts say the efforts would be the most profound changes to CEQA in generations. Newsom not only endorsed the bills last month, but also put them on a fast track to approval by proposing their passage as part of the state budget, which bypasses normal committee hearings and means they could become law within weeks.

“This is the biggest opportunity to do something big and bold, and the only impediment is us,” Newsom said when announcing his support for the legislation.

Nearly the entire 55-year history of the California Environmental Quality Act has featured dueling narratives about its effects. On its face the law is simple: It requires proponents to disclose and, if possible, lessen the environmental effects of a project. In practice, this has led to tomes of environmental impact reports, including volumes of soil testing and traffic modeling studies, and sometimes years of disputes in court. Many credit CEQA for helping preserve the state’s scenic vistas and waterways while others decry its ability to thwart housing and infrastructure projects, including the long-delayed and budget-busting high-speed rail.

On the latter point, evidence supports both sides of the argument. One study by UC Berkeley law professors found that fewer than 3% of housing projects in many big cities across the state over a three-year period faced any litigation. But some contend that the threat of a lawsuit is enough to chill development, and examples continue to pile up of CEQA stalling construction of homeless shelters, a food bank and child-care center.

What’s clear is that CEQA has become embedded as a key point of leverage in California’s development process. Los Angeles Mayor Karen Bass once recalled that when she worked as a community organizer in the 1990s, Westside land-use attorneys who were successful in stopping development in their communities taught her how to use CEQA to block liquor stores in South L.A.

Organized labor learned to use the law to its advantage and became one of its most ardent supporters, alongside environmentalists — major constituencies within Democratic politics in the state. Besides carve-outs for individual projects in recent years, lawmakers have passed CEQA streamlining for certain kinds of housing and other developments. These fast-track measures can be used only if proponents agree to pay higher wages to construction workers or set aside a portion of the project for low-income housing on land considered the least environmentally sensitive.

Labor groups’ argument is simple, said Pete Rodriguez, vice president-Western District of the United Brotherhood of Carpenters and Joiners: CEQA exemptions save time and money for developers, so some benefit should go to workers.

“When you expedite the process and you let a developer get the TSA pass, for example, to get quicker through the line at the airport, there should be labor standards attached to that as well,” Rodriguez said at a Los Angeles Business Council panel in April.

The two bills now under debate — Assembly Bill 609 by Assemblymember Buffy Wicks (D-Oakland) and Senate Bill 607 by Sen. Scott Wiener (D-San Francisco) — break with that tradition. They propose broad CEQA changes without any labor or other requirements.

Wicks' bill would exempt most urban housing developments from CEQA. Wiener's legislation, among other provisions, would in effect lessen the number of projects, housing and otherwise, that would need to complete a full environmental review, narrowing the law's scope.

"Both are much, much more far-reaching than anything that has been proposed in living memory to deal with CEQA," said Chris Elmendorf, a UC Davis law professor who tracks state environmental and housing legislation.

The legislation wouldn't have much of an effect on rebuilding after L.A.'s wildfires, as single-family home construction is exempt and Newsom already waived other parts of the law by executive order.

The environment inside and outside the Legislature has become friendlier to more aggressive proposals. "Abundance," a recent book co-written by New York Times opinion writer Ezra Klein, makes the case that CEQA and other laws supported by Democrats have hamstrung the ability to build housing and critical infrastructure projects, citing specifically California's affordability crisis and challenges with high-speed rail, in ways that have stifled the American Dream and the party's political fortunes.

The idea has become a cause celebre in certain circles. Newsom invited Klein onto his podcast. This spring, Klein met with Wicks and Wiener and other lawmakers, including Robert Rivas (D-Hollister) and Mike McGuire (D-Healdsburg), the leaders of the state Assembly and Senate, respectively.

Wicks and Wiener are veteran legislators and former chairs of legislative housing committees who have written much of the prior CEQA streamlining legislation. Even though it took bruising battles to pass previous bills, the resulting production hasn't come close to resolving the state's shortage, Wicks said.

"We need housing on a massive scale," Wicks said.

To opponents of the bills, including dozens of environmental and labor groups, the effort misplaces the source of building woes and instead would restrict one of the few ways community groups can shape development.

Asha Sharma, state policy manager for Leadership Counsel for Justice & Accountability, said her organization uses CEQA to reduce the polluting effects of projects in neighborhoods already overburdened by environmental problems.

The proposed changes would empower public agencies and developers at the expense of those who would be affected by their decisions, she said.

“What folks aren’t realizing is that along with the environmental regulations comes a lot of public transparency and public engagement,” said Sharma, whose group advocates for low-income Californians in rural areas. “When you’re rolling back CEQA, you’re rolling back that too.”

Because of the hefty push behind the legislation, Sharma expects the bills will be approved in some form. But it remains uncertain how they might change. Newsom, the two lawmakers and legislative leaders are negotiating amendments.

Wicks said her bill will not require developers to reserve part of their projects for low-income housing to receive a CEQA exemption; cities can mandate that on their own, she said. Wicks indicated, however, that labor standards could be part of a final deal, saying she’s “had some conversations in that regard.”

Wiener’s bill was gutted in a legislative fiscal committee last month, with lawmakers saying they wanted to meet infrastructure and affordability needs “without compromising environmental protections.” Afterward, Wiener and McGuire, the Senate leader, released a joint statement declaring their intent to pass a version of the legislation as part of the budget, as the governor had proposed.

Wiener remained committed to the principles in his initial bill.

“What I can say is that I’m highly optimistic that we will pass strong changes to CEQA that will make it easier and faster to deliver all of the good things that make Californians’ lives better and more affordable,” Wiener said.

Should the language in the final deal be anything like what’s been discussed, the changes to CEQA would be substantial, said Ethan Elkind, director of the climate program at UC Berkeley’s Center for Law, Energy & the Environment. Still, he said the law’s effects on housing development were overblown. Many other issues, such as local zoning restrictions, lack of funding and misaligned tax incentives, play a much larger role in limiting construction long before projects can even get to the point where CEQA becomes a concern, he said.

“CEQA is the last resort of a NIMBY,” said Elkind, referring to residents who try to block housing near them. “It’s almost like we’re working backwards here.”

Wicks agreed that the Legislature would have to do more to strip away regulations that make it harder to build housing. But she argued that the CEQA changes would take away a major barrier: the uncertainty developers face from legal threats.

Passing major CEQA reforms would demonstrate lawmakers’ willingness to tackle some of the state’s toughest challenges, she said.

“It sends a signal to the world that we’re ready to build,” Wicks said.

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