

DOCUMENTS IN THIS PACKET INCLUDE:

LETTERS FROM CITIZENS TO THE
UTILITIES ADVISORY COMMISSION

Sewer Line Backup

From Serge Abend <sergabend@gmail.com>

Date Mon 4/28/2025 12:32 PM

To UAC <UAC@PaloAlto.gov>

Cc Abend Serge <sergabend@gmail.com>

CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.

To Utilities Customer,

I am writing to commend the prompt, courteous and thorough work of Jonny Luna who came to our house (2515 South Court) to address our sewer line backup on Sunday morning (April 27).

We are indeed fortunate to have him on the Palo Alto Utilities team.

Thank you for recognizing his outstanding work for us and the city.

Serge and Judith Abend

"PALO ALTO CANARIES," VICTIMS OF UNREPORTED TOXIC SPILL

From ReDoing 2020 <redoing2020@gmail.com>

Date Wed 4/16/2025 3:36 PM

To UAC <UAC@PaloAlto.gov>

Cc Nose, Kiely <Kiely.Nose@paloalto.gov>

CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.

Copied to the Utilities Advisory Commision Board & staff 4/16/25pm

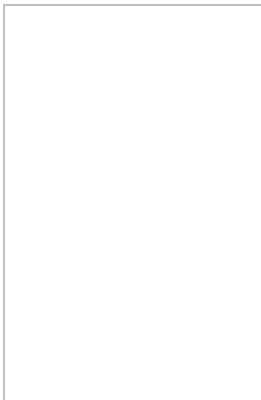
----- Forwarded message -----

From: **ReDoing 2020** <redoing2020@gmail.com>

Date: Tue, Apr 15, 2025, 3:08 PM

Subject: "PALO ALTO CANARIES," VICTIMS OF UNREPORTED TOXIC SPILL

To: <City.council@paloalto.gov>



WHAT ELSE ARE THEY NOT TELLING US? #1

"PALO ALTO CANARIES," VICTIMS OF UNREPORTED TOXIC SPILL

Report to the Palo Alto City Council, April 15, 2025, pm. Northern California, USA

Silicon Valley's Palo Alto residents were faced with an unreported toxic spill in the municipal tap water, caused by lax unprepared utility managers operating an antiquated system that failed to protect residents from the risk of harm by undetected chemicals...who then covered up their bad behavior.

We suggest that the California State Attorney General and the Santa Clara County District Attorney look into this "canaries in the coal mine event," as the D.A. had announced he would do regarding the Tesla spill in Palo Alto that was also kept from the public till the reclusive City Manager was forced to

apologize for secrecy.

Here's what happened, and why it's important:

On June 14, 2024, about 8:30am in the morning, a call came in to the utility department (from a patriotic water user inspired by Flag Day) reporting that their kitchen sink smelled like a swimming pool, a possible hint that a toxic level of a dangerous chemical might be in the tap water pipes in the City of Palo Alto.

Unbeknownst to the water utility staff (that said initially,) an illegal overdose of a disinfectant chemical was later blamed by them as a malfunction of the equipment of the City's wholesale supplier, the City of San Francisco water department (with an outpost on Arastradero Rd.)

It's not clear whether San Francisco was aware of the intrusion or understood that the product they were selling was poisoned. But what is known is that its customer, the Palo Alto water utility, was uninformed and in the dark, while city residents were blindly using a harmful resource to drink, wash, prepare food, make ice cubes, mix baby formula, dress wounds, brush teeth. etc.

Incidentally, the version of chlorine used in the City is "CHLORAMINE" a mix of chlorine and ammonia, whose chemical components don't boil off or dissipate into the air easily as chlorine alone does. (Read more about drawbacks to this Disinfection alternate that lacks long-term safety tests.)

Think of it this way: the same horrific chemical weapon, chlorine, at higher strengths was used as far back as World War 1 to kill enemy soldiers, while modern Russia is said to be using Chlorine in its current battle with Ukraine.

In the United States, currently a weaker Chlorine version is approved as a water disinfectant as long as it conforms to **very strict concentration limits**. But on the day when the water tap smelled bad, the toxic chemical load was later deemed to be a violation of the safety limits, and was tragically being passed off by hapless Palo Alto employees as a safe product when in fact it was not.

Anyone familiar with the habits of bureaucracy knows that there was no way that these public servants were going to admit such an error.

Desperate to cover up a mistake, they said that they contacted the California State bureaucrats, presumably hopeful of securing advice that would protect the City from having to publicly reveal what had happened.

Bingo! It turns out that the rules regarding disclosure of dangerous levels of chemicals in the water supply are modified in the statute to protect water operators who are too poor or too dumb to regularly conform to safe standards.

In fact, as the Palo Alto utilities staff pointed out, they would have had to contaminate the water supply many days for a year to be compelled to disclose their failures.

That's the bureaucrat's dream scheme known as "rolling averages." All the good and bad performance indicators are rolled into one in the annual report.

Impossible to deny at this point, but during the crisis, Palo Alto staff knowingly chose moral

cowardice--they refused to tell its residents about the tap water contamination--the City spokesperson even lied to reporters: "There was no problem," she said.

The municipality hid behind a bureaucratic procedural smokescreen that they interpreted as allowing dangerous levels of toxins to pass without alert into homes, businesses, schools, parks, and municipal facilities. And consequently into humans, pets and through any lead pipes on the premises, where chlorine increases the danger of ingesting horrific leached lead due to its corrosive effect on the piping system.

The City policy is not to report the exact data that reveals the daily water quality. Instead, it approves adding together all the measures over a year's time, and issues the results in a single number as if it was in effect for the full year.

For example, in the summertime when cancer causing trihalomethanes levels rise above the federal maximum, the City leadership decided that there's no legal need to warn the public to take precautionary measures, as long as the lower carcinogen levels in the cooler months are averaged into the annual municipal report to the community.

Rolling averages policies, as a politically contrived convenience, are keeping the public from knowing when, how, and to what extent they should be protecting themselves from harmful consequences. (i.e. get faucet filters, water treatment pitchers, bottled water, whole house systems, lab tests etc.)

The despicable performance of the bureaucrats at the time of the spill was based on the choice they made between decades old Federal rules promulgated in the 1970's that facilitates business practices of water suppliers, and otherwise the absolute obligation of public employees to protect residents from unsafe and unhealthy conditions.

There should have been no doubt about which path to take on Flag Day, especially when there was still time to warn the possible victims so they could take steps to lessen their risk (not use nor store the water.) But the Palo Alto representatives elected to hide the truth from the public in favor of hoping to save their jobs and reputation or employing whatever twisted motive was on their minds at the time.

Returning to the water contamination event: The City employees were unprepared for such a calamity, despite the fact that pipe intrusions are possible. They had no workable emergency plan or equipment to be able to detect that residents were being put in harm's way.

Only an alert resident who phoned in to say that their sink water stinks, saved the day. The damage caused by the lax utility controls was limited at that point, after rushed water lab tests confirmed the EPA violation committed by Palo Alto.

Some emergency procedures were partially instituted--the noxious liquid was flushed from the piping system at the building location of the original report, but not at other affected properties.

Oddly, no other sites that were fed by the same polluted wholesale water source were contacted, including schools, private homes, businesses and multifamily residences, according to the City's utility officials who made excuses for neglecting to alert all the other vulnerable water users.

Sorry to say, anyone present in those other locations at the time no longer merited the protection of

their government, decided the staff. As a result, most of the dangerous water was permitted to remain in place, to be used by the unprotected community, despite the fact that the insiders, (City officials and staff,) knew that the contaminated water was prohibited for human or environmental use.

Needless to say, the polluted water that was sent to customers, and the gallons wasted in the flushing of the pipes, was also billed for by the municipal revenue department, trained to to never let a drop go to waste in their zeal for soaking residents.

Some Federal EPA water rules history:

It's interesting to note that when the original drinking water standards were first drafted, the scientists called for more stringent requirements. But strong lobbying efforts from municipalities and water companies throughout the country succeeded in watering down the levels that must be met. Ignoring health protections. Acting on behalf of the water systems, it allows them to violate safety standards as long as as their cumulative annual records conform to the requirements for averaging (described above).

Therefore, the water customer will not know the actual health risks they face because of this bureaucratic and political escape hatch. Since the water quality records offered to the public are only issued once a year, usually as a marketing piece, a local water company can boast of winning results that in fact are only averages; despite the truth that may be different.

As a result, residents, as water customers are not getting an actual picture of the consequences of their daily water intake and use. To compound the sorry lack of the public's information, the Palo Alto utility department won't even come to homes anymore as they once did, to test repulsive or funny looking water from the tap. The modern response is for callers to be told that they should hire a lab at their own expense. Moreover, the City doesn't even bother to automatically mail the slick annual report to all residents. You need to call or go online.

And in the case of a potential water accident Palo Alto hadn't incorporated the capability to use real time equipment to monitor or measure chemical pollution before it entered buildings and customer faucets. Poorly trained yet highly paid City employees were satisfied to rely on calls that might come from customers when the tap water looked bad, smelled funny, or tasted awful...already too late to protect users.

The cost savings for not purchasing available monitoring technology was measured against the inevitable risk to human health when older water systems stumble or fail...as happened on Flag Day.

By the time the public reads of the event described in this report, the City will have allegedly already purchased the monitoring equipment after the fact, to install the technology at a few locations. But by December 2024, six months after the intrusion catastrophe, staff said it was not yet activated, still casually displaying their lack of urgency in their mandate to protect resident health and safety.

We hope that disclosure of the secretive operating practices of the Palo Alto Utility department and the skewed focus of the Utilities Advisory Commission, coupled with irresponsible City administrators, is a wake-up call for urgent action necessary to strengthen public service to the community, especially in light of the current reported authoritarian chaos of the Federal government that aims to dismantle service protections without concern for individual rights, safety, or well being.

Note: The comments in this report are first hand observations made at the time of the toxic spill event, and from contemporaneous notes made during conversations with government staff. The City representatives may have additional information to clarify their actions that a followup hearing can reveal.

Corrections or updates to:

Redoing2020@gmail.com (please first read notes below)

NOTE TO READERS: If you are a working reporter or government investigator, or not-for-profit organization, that wants to followup on this reported incident, please send your professional credentials, contact information, and an idea of your interests, and we will contact you. Ditto for City or State or County officials that have jurisdiction. (Should you issue additional information, we'd appreciate a copy.)

ABOUT US: We are a volunteer source for original important civic and consumer facts designed to help combat a variety of fraudsters that unjustly profit from taking advantage of the public's naivety and/or lack of knowledge.

WE DON'T OPEN ATTACHMENTS OR UNREQUESTED MATERIALS. Please don't send attachments with images, or long stories of suffering, including abusive practices by Palo Alto government or its multi-family housing owners/managers (a common source of stress for about half the population that are renters.)

However, if you have well documented evidence of Palo Alto municipal misdeeds similar to our report, send a short paragraph in 100 words or less, with your confidential contact information and permission for us to connect you with professionals and investigators who are following up. Otherwise, if coverage in our planned future editions is related to your specific knowledge we may contact you.

COMMENTS -- 05-05-07 UAC meeting -- Item 3 -- FTTP

From Jeff Hoel <jeff_hoel@yahoo.com>

Date Sun 5/4/2025 2:15 PM

To UAC <UAC@PaloAlto.gov>

Cc Hoel, Jeff (external) <jeff_hoel@yahoo.com>; Council, City <city.council@PaloAlto.gov>

CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.

Commissioners,

Below is a copy of the staff report for Item 3 on UAC's 05-07-25 agenda ("Fiber Rates and Packages"), to which I have added my COMMENTS (paragraphs in red beginning with ###).

Thanks.

Jeff

Jeff Hoel
731 Colorado Avenue
Palo Alto, CA 94303

PS: I will not be able to attend the meeting, unfortunately.

=====

05-07-25: UAC meeting agenda:

<https://cityofpaloalto.primegov.com/Portal/Meeting?meetingTemplateId=17424>

* Item 3: Utilities Advisory Commission Finance Subcommittee Recommends the Commission Recommend City Council Approve the FY 2026 Fiber Rates and Packages

ACTION

I hope the UAC commissioners can take advantage of this ACTION item to tell Council what they really think.

6:55PM -- 7:35PM

40 minutes is not a lot of time.

Staff: Dave Yuan, Utilities Strategic Business Manager

=====

STAFF REPORT

--- page 1 ---

Utilities Advisory Commission
Staff Report

From: Kiely Nose, Interim Director Utilities

Lead Department: Utilities

Meeting Date: May 7, 2025
Report #: 2407-3228

TITLE

Utilities Advisory Commission Finance Subcommittee Recommends the Commission Recommend City Council Approve the FY 2026 Fiber Rates and Packages

RECOMMENDATION

Staff recommends that the Utilities Advisory Commission (UAC) advance a recommendation that Council approve the Fiber Rates and Packages for the City of Palo Alto to provide fiber broadband internet.

EXECUTIVE SUMMARY

Staff is recommending the Utilities Advisory Commission (UAC) advance a comprehensive rate range and service package for Council to consider and authorize to support the continued implementation of the City's Fiber-to-the-premises (FTTP) project pilot area of approximately 1,000 homes. The proposed broadband services and rates are based on extensive market research, evaluation f

of

customer needs and competitive benchmarks. The rate range and service package allows flexibility to structure rates for special promotions,

Many successful municipal FTTP networks don't have special promotions. Rather, they take pride in saying that their customers like the fact that they don't have to search for special deals.

service packages, and other means to be competitive in offering fiber services to our pilot customers. A well-defined and adaptable rate structure for fiber internet services is essential for the success of the FTTP project. Recognizing the evolving and competitive marketplace, staff will continue to learn from this initial phase and incorporate new service delivery strategies. Staff continues to advance the City's electrical grid modernization project and Palo Alto Fiber together, saving time, creating efficiencies and reducing costs.

Staff presented the fiber rates and packages to the UAC Budget Subcommittee.

This year, Commissioners Croft, Gupta, and Phillips served on the UAC Budget Subcommittee.
<https://www.paloalto.gov/Departments/Utilities/Utilities-Advisory-Commission>
As far as I know, the public doesn't know what staff presented there or what was discussed.

The subcommittee unanimously approved the proposed fiber rates structure and product offerings.

BACKGROUND

On December 19, 2022 Council directed staff to proceed with the fiber backbone, a phased FTTP infrastructure build approach, and a hybrid business model for providing fiber internet services. Work continues to advance in several areas to launch a pilot service area including development and implementation of a new Operations Support System/Business Support

--- page 2 ---

System (OSS/BSS) [1], engineering design and construction planning, material procurement, marketing, service delivery, and the strategic allocation of staffing resources through either hiring external expertise or training and assigning internal personnel to support these efforts.

On June 19, 2023, Council approved the FY 2024 CIP Budget with the new FTTP project "FTTP", and Grid Modernization for Electrification Project "Grid Mod". The approval of the Grid Mod project accelerated efforts to align electric and fiber construction, which impacted FTTP construction.

Is this saying that FTTP construction was delayed by having to coordinate with Grid Mod?

Deployment continues to minimize utility engineering pole make-ready work, pole replacements, noise disruption, and construction activity in neighborhoods.

Following the June 2023 Council approval of the FY 2024 CIP Budget for the FTTP project, staff has been actively laying the groundwork for implementation.

Is this saying that no part of the FTTP project has been implemented so far? Has any part of the new backbone network been implemented so far?

Activities include leveraging existing contracts and resources, securing the necessary approvals and permits to install a new fiber data hut,

How many necessary approvals and permits remain to be obtained to install the new fiber data hut? Of these, how many must be obtained from an entity other than the City itself? Can they be expedited?

and establishing the operational frameworks and workflows required to support future service areas. These efforts are proceeding in parallel with the ongoing pilot program aimed at optimizing the alignment of fiber deployment with the City's grid modernization initiatives.

ANALYSIS

In February 2025, the City retained Brightscape Networks

Brightscape Networks

<https://www.brightscapenetworks.org/why.brightscape.html#origin>

It's a subsidiary of CENIC, the Corporation for Education Network Initiatives in California.

<https://cenic.org/>

Since Palo Alto isn't exactly building an educational network, why are they looking to a CENIC subsidiary for advice?

/GoMo,

GoMo Consulting

https://rocketreach.co/gomo-consulting-profile_b778a560c51be3a8

GoMo is based in Seattle, WA. It employs 2 people. One is Tom George.

https://rocketreach.co/tom-george-email_15349803

Who recommended these consultants? What's happened to Magellan?

fiber industry experts, to analyze the residential broadband coverage, competitive landscape, and potential service offering with the pilot area along with an operational assessment. In March 2025, Brightscape provided a summary of their market review of the pilot area, which revealed a duopoly between two major wireline incumbent providers Xfinity and AT&T, with Xfinity holding 100% coverage

I suppose this means that Xfinity's coverage in Palo Alto is 99.5 percent or greater. But it's certainly possible to find unpassed premises on FCC's broadband map.

https://broadbandmap.fcc.gov/location-summary/fix?id=061401c9-fd6c-4028-a5b8-a2bfd18fe9dd&addr1=2600+COLUMBIA+ST+BLDG+2&addr2=PALO+ALTO%2C+CA+94304&zoom=15.13&vlon=-122.151041&vlat=37.416431&br=r&speed=250_25&tech=2

(FCC's broadband map lets you specify technology (e.g., "cable") and speed (e.g., 250/25 Mbps). Green dots indicate covered premises. Red dots indicate premises not covered.)

(The FCC broadband map relies on data provided by the ISPs.)

via cable (offering speeds up to 2 Gbps

It's important to pay attention to both upload speeds and download speeds.

In Palo Alto, Xfinity can offer speeds up to 1200/35 Mbps in most places and 2000/200 Mbps in a few places.

https://broadbandmap.fcc.gov/location-summary/fix?id=061401c9-fd6c-4028-a5b8-a2bfd18fe9dd&addr1=2600+COLUMBIA+ST+BLDG+2&addr2=PALO+ALTO%2C+CA+94304&zoom=15.13&vlon=-122.151041&vlat=37.416431&br=r&speed=1000_100&tech=2

(Here's what the map looks like, specifying cable technology and 1000/100 Mbps, which excludes Xfinity's 1200/35 Mbps coverage.)

with data caps and contracts) and AT&T covering 89% with symmetrical fiber (FTTH) options up to 5 Gbps without data caps or contracts. Brightscape recommended Palo Alto offer symmetrical speeds ranging from 500 Mbps to 1 Gbps,

What was the rationale for this recommendation?

-- Why wouldn't it make sense to offer a slower speed for people who ask for rate assistance?

-- Why wouldn't it make sense to offer higher speeds for people who want them (since the 10-Gbps infrastructure can support it)?

focusing on a few plans to offer at competitive, contract-free rates with no data caps. They highlighted the need to address challenges in serving multi-family residents where incumbents have a long-standing presence and partnerships which limit competition.

With two major incumbent providers in the pilot area, the City would need to overcome the hurdles of new customer acquisition, such as switching aversion - when subscribers express dissatisfaction with their current internet service provider, the perceived hassle of switching may prevent them from taking action. To overcome challenges like this, through staff recommendations Palo Alto Fiber can provide basic services which are easy to understand and competitively priced, with marketing and outreach that differentiates our services from other providers, such as being a locally available municipality they can speak to in person.

[1] Operations support systems (OSS) manage telecom network infrastructure, ensuring reliable operations through functions like fault management and service assurance. Business support systems (BSS) streamline customer-facing activities, such as billing, subscriptions, and customer relationship management, to improve customer experiences. Together, OSS and BSS enhance telecom operations by connecting efficient network management with seamless customer interactions.

--- page 3 ---

To optimize deployment within this competitive landscape, staff recommends an initial offering focused on simple, easy to understand and fulfill service packages. Staff also recommends approval for a range of rates and packages which can be easily adapted. This strategic approach offers several key advantages. First, limiting the number of core packages simplifies the initial deployment and provisioning processes, allowing staff to grow in-house expertise while relying on contracted services to concentrate on efficient installations and customer onboarding. Second, it reduces complexity in our customer support efforts and marketing and outreach, enabling us to clearly communicate the value proposition of each plan and focus on providing services. In a market where customers are often overwhelmed by numerous offerings, simplicity and transparency can be a significant differentiator. With a well-defined range for the rates and packages, staff can quickly adapt offerings to target different customer segments.

Staff recommends UAC adopt the following range of rates for Council consideration and approval the below range for the rates:

What's the intent of the ranges specified? Will the high-end price apply unless there's a promotional special?

Residential Service Plan	Pricing	Comments
500 Mbps - Rate Assistance	Up to \$30 Monthly;	Free installation and router

How many homes would qualify for this rate assistance? How would this program affect the financial viability of the FTTP network?

Would it make sense to specify rate assistance as the discount from standard pricing, e.g., up to \$45 monthly?

500 Mbps	Up to \$75 Monthly;	Free installation and router
1 Gbps	Up to \$95 Monthly;	Free installation and router

I assume that the "router" mentioned here is the thing that allows the customer to connect to the CPE (FTTP customer premises electronics) via Wi-Fi while inside the premises.

Many municipal FTTP networks charge extra for this feature. This kind of Wi-Fi is notorious for requiring additional customer service.

Some municipal FTTP networks also charge even more to provide extra Wi-Fi equipment within the premises to make sure that Wi-Fi coverage within the premises is reliable throughout.

2 Gbps	Up to \$175 Monthly;	Free installation
--------	----------------------	-------------------

5 Gbps Up to \$265 Monthly; Free installation

I have the impression that most of the City's costs for providing an FTTP connection are for infrastructure and operations and customer service, NOT for bandwidth. So, could the prices for 2 Gbps and 5 Gbps be reduced?

Commercial Internet Service Plan

	Pricing	Comments
500 Mbps	Up to \$125 Monthly;	Free installation and router
1 Gbps	Up to \$185 Monthly;	Free installation and router
2 Gbps	Up to \$195 Monthly;	Free installation
5 Gbps	Up to \$295 Monthly;	Free installation

Additional Equipment

	Pricing	Comments
Calix GigaSpire		
	Up to \$5	Monthly
Calix Blast Mesh Extender		
	Up to \$5	Monthly
Calix Gig Wan Port		
	Up to \$600	One time purchase

I guess this means that Palo Alto has selected Calix as its OLT/ONT vendor. Right? Has the City executed a purchase order with Calix yet?

--- page 4 ---

Other Service Offerings

	Pricing	Comments
Fixed wireless - 100 Mbps		
	Up to \$75/Month	Monthly; Free installation and router

I don't understand what this item is. Whatever it is, why is it only 100 Mbps? (Symmetrical?)

Protect IQ	Up to \$10/Month	Network level security to protect against malicious threats and intrusions.
Experience IQ	Up to \$10/Month	Advanced parental controls with content access and usage schedules
Smart Home - Calix		
	Up to \$10/Month	Tools to manage and secure including features like network security, parental controls, and smart home automation.
Smart Biz - Calix		
	Up to \$30/Month	Suite of features to support small businesses.
Smart MDU - Calix		
	Up to \$10/Month per subscriber	Calix solution for MDU's that ads

adds?

features like community wide managed wi-Fi for the complex.

Commercial Dedicated 1 Gbps Internet Access (DIA)
Up to \$1,500/Month 1 Gbps Dedicated Internet Access (DIA) service to deliver dedicated bandwidth, reliable, high-performance connectivity, and throughput consistency.

What infrastructure is required to support this dedicated internet access (DIA) product?

Commercial Dedicated 10 Gbps Internet Access (DIA)
Up to \$7,500/Month 10 Gbps Dedicated Internet Access (DIA) service to deliver dedicated bandwidth, reliable, high-performance connectivity, and throughput consistency.

What infrastructure is required to support this?

Other Contract Terms

Data Allowance - Unlimited
Month to month contract term

FISCAL/RESOURCE IMPACT

This report is for discussion purposes

Not exactly. It's in support of an ACTION item.

so there is no resource impact. Based on UAC and Council input, staff will recommend Council approve fiber internet rate ranges and packages. With necessary approvals, rates would be included in the June 16, 2025 Council budget adoption.

STAKEHOLDER ENGAGEMENT

On November 2, 2022, the UAC unanimously recommended to build fiber backbone and FTTP under a phased approach with existing funds. The UAC expressed the goal of building FTTP is to provide ubiquitous or citywide high-speed internet access to all residents and businesses in Palo Alto. If financially self-sustaining, and deemed successful, the first phase of FTTP can become a springboard to a citywide FTTP deployment.

--- page 5 ---

On December 19, 2022, City Council directed staff to proceed with the Fiber Expansion Plan to implement the Fiber Rebuild project and Phase 1 of the Fiber-to-the-Premises (FTTP) project without debt financing. Included in the Council's motion was to a) maximize number of homes and businesses passed; b) consider promotional rates to increase take rate; c) define leading indicators and metrics to determine success; and d) recommend Council accelerate expansion if metrics are positive, including a potential bond to streamline construction and compress construction time as much as feasible.

On June 19, 2023, the City Council approved the FY 2024 CIP Budget for the new FTTP project, and Grid Modernization for Electrification Project. The approval of the electrification project accelerated efforts to align electrification and fiber construction, which impacted the Fiber Expansion Plan. Staff is deploying a pilot to determine how to align the grid modernization project and projects under the Fiber Expansion Plan to help minimize utility engineering pole make-ready work, pole replacements, noise disruption, and construction activity in neighborhoods. The pilot design was recently modified to streamline construction, and is currently undergoing material purchasing before starting fiber construction.

When can fiber construction begin?

When can the FTTP hut at the Colorado Electric Substation be installed?

-- When can the concrete slab for the hut be poured?

-- When can the substation's fence be modified to accommodate access to the hut?

Since that time, staff has engaged UAC at their public meetings, and taken community input on various aspects of the staff's work to date. Additionally, a project website is live and offers information and status updates on this effort. Project updates will continue to be provided at <http://www.PaloAlto.gov/PaloAltoFiber>

As far as I can see, the latest "Palo Alto Fiber Project Status" provided by this web page was 11-07-23.

Six months ago, staff said they hoped the first FTTP customers could begin being served in June 2025. What does staff say they hope now?

ENVIRONMENTAL REVIEW

The UAC's recommendation for a rate and package is not a project requiring California Environmental Quality Act review, because it is an administrative governmental activity which will not cause a direct or indirect physical change in the environment.

ATTACHMENTS

Attachment A: Presentation

AUTHOR/TITLE:

Kiely Nose, Interim Director of Utilities

Staff: Dave Yuan, Utilities Strategic Business Manager

=====

0507-25: 12-month rolling calendar:

<https://www.paloalto.gov/files/assets/public/v/1/agendas-minutes-reports/agendas-minutes/utilities-advisory-commission/archived-agenda-and-minutes/agendas-and-minutes-2025/05-may/05-07-25-rolling-calendar.pdf>

Here are the FTTP-related items:

- * May -- UAC -- Fiber Rates/Packages and FTTP Update
- * June -- Finance Committee -- Fiber Rates/Packages
- * June -- City Council -- Fiber Rates/Packages

Will the Finance Committee and City Council get an "FTTP Update" when the "Fiber Rates/Packages" item is considered?

Complaint Filed Against SFPUC

From Peter Drekmeier <peter@tuolumne.org>
Date Fri 5/2/2025 12:29 PM
To UAC <UAC@PaloAlto.gov>
Cc Burton, Kaylee <Kaylee.Burton@paloalto.gov>

 1 attachment (4 MB)

TRT Complaint - SFPUC Unreasonable Use_FINAL.pdf;

Dear Chair Scharff and UAC Commissioners:

Thank you for your great service to the City!

Attached, please find a complaint I filed with the State focusing on the SFPUC's unreasonable use of water. As you'll see, the complaint addresses how water is managed, not how it is used. Managed correctly, we have plenty of water available for both human needs and the environment.

Thank you.

-Peter

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

Unreasonable Use of Water Complaint Against the SFPUC

Earth Day – April 22, 2025

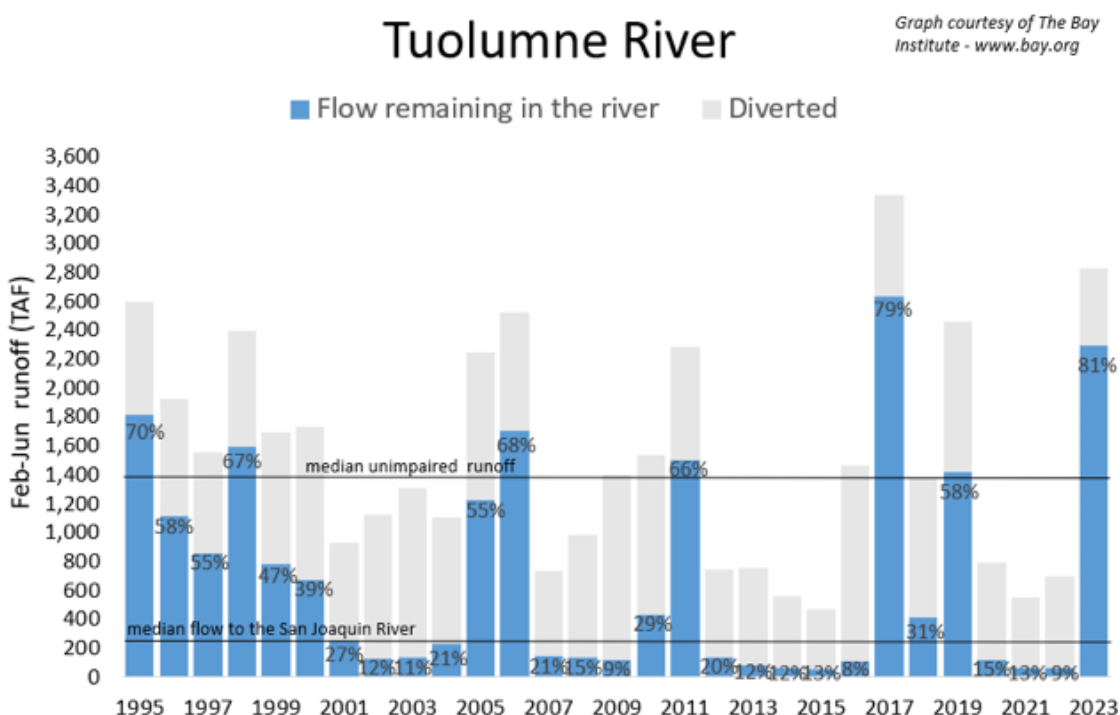
Submitted by Tuolumne River Trust: Peter Drekmeier, peter@tuolumne.org, (650) 248-8025.

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/6806d67dc6d60507fbed5/1745278591397/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

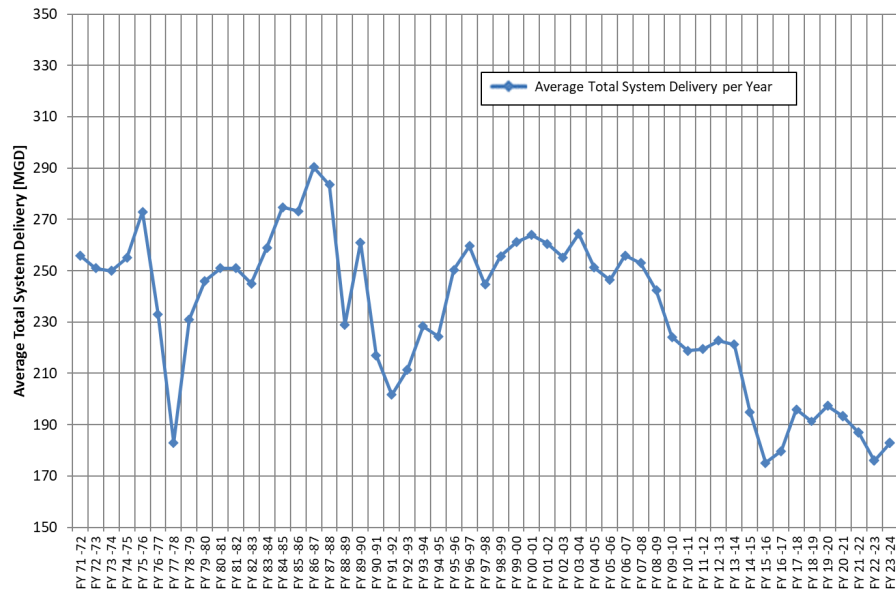
Table 3-9. Extracted Drought Events from Historical Tuolumne Flow at La Grange for Two Different Thresholds.
For each threshold, the drought events are sorted by decreasing severity.

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

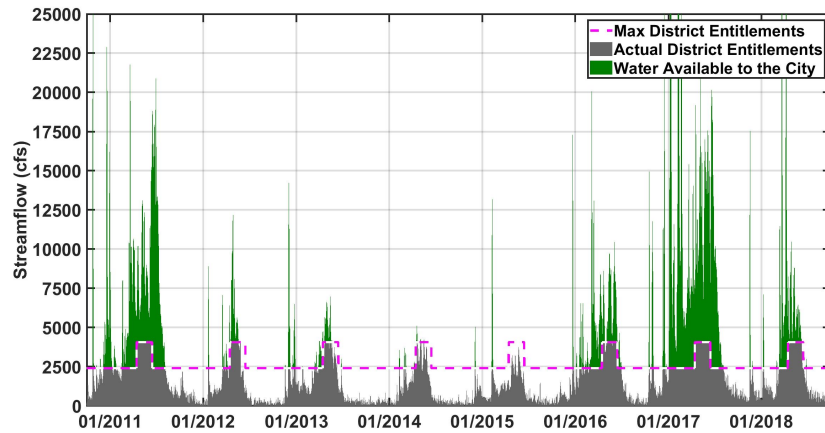
SFPUC Average Total System Delivery per Year
Fiscal Years 1971 - 2024



Source: SFPUC

2

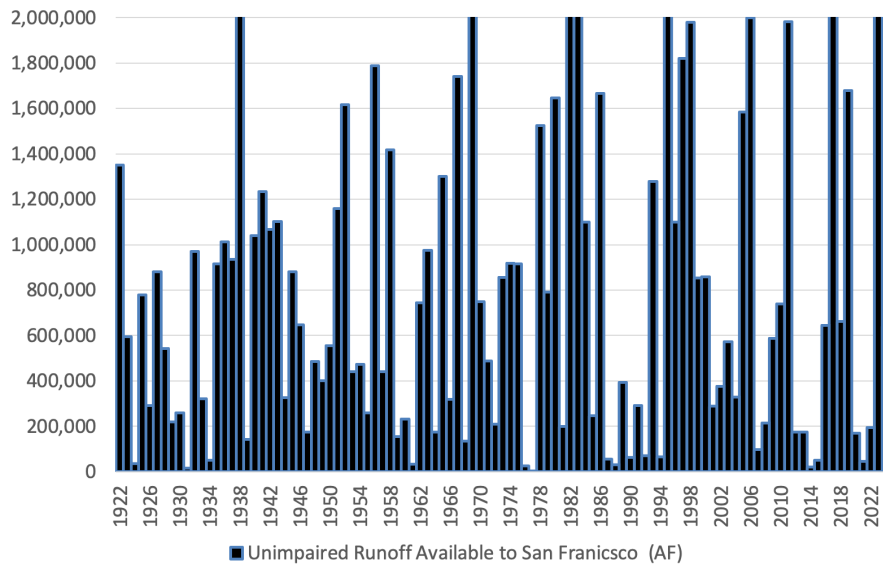
Tuolumne River Water Entitlements



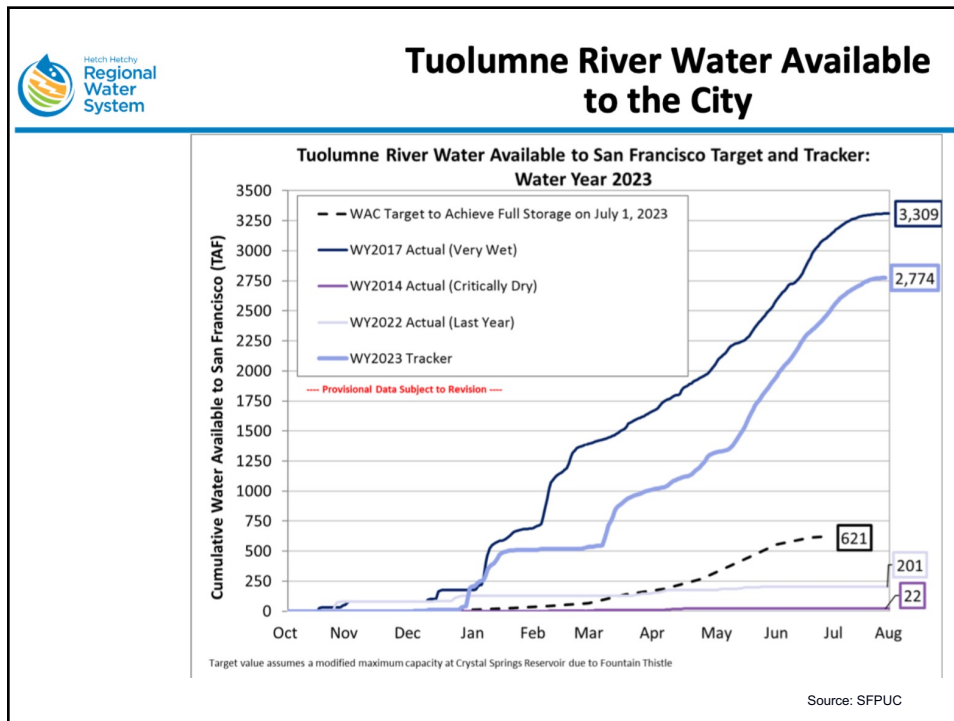
The SFPUC's water rights are poor in dry years, but exceptional in normal and wet years.

3

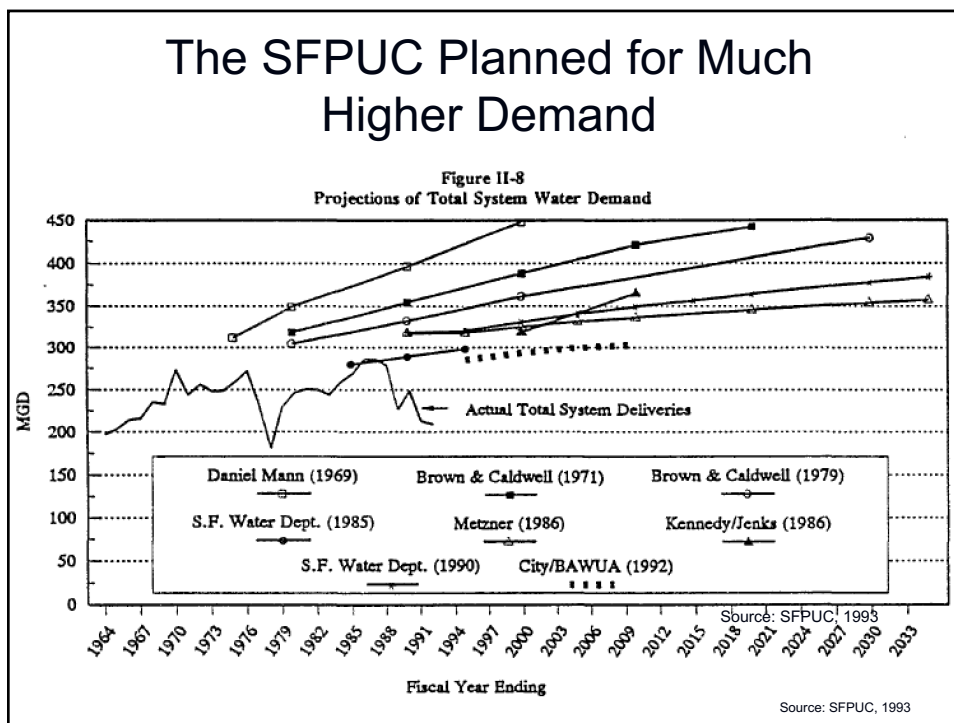
Tuolumne River Water Available to San Francisco
1922-2024



4



5



6



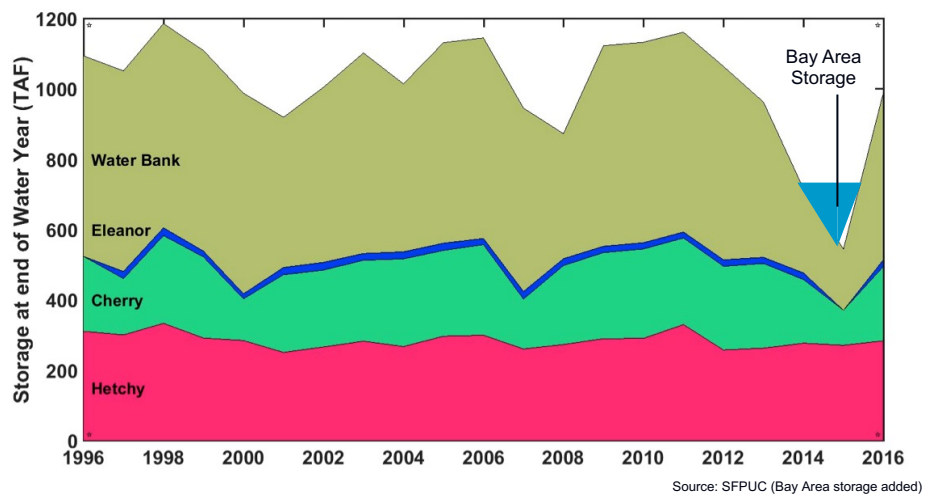
April 14, 2025, Reservoir Storage

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

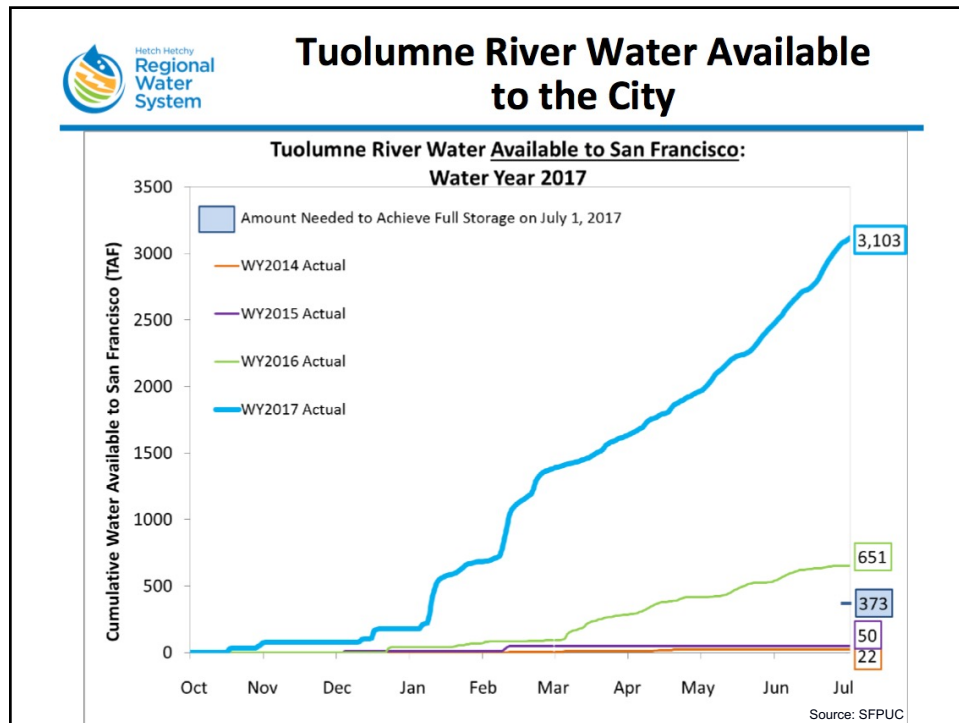
7

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.

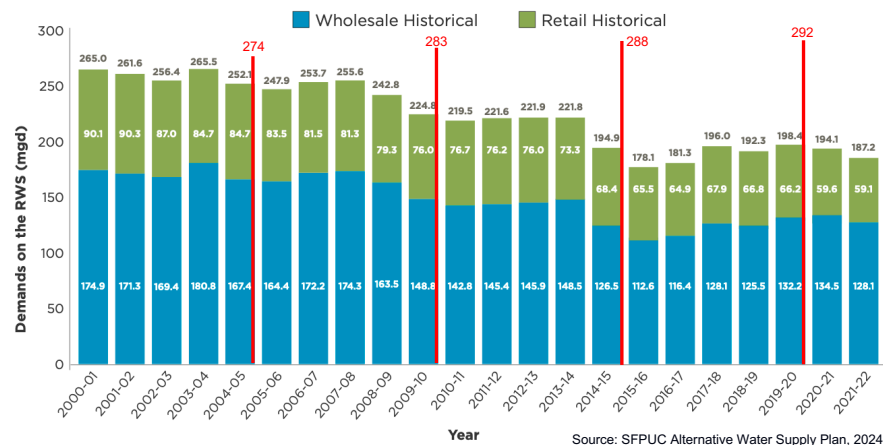
8



9

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

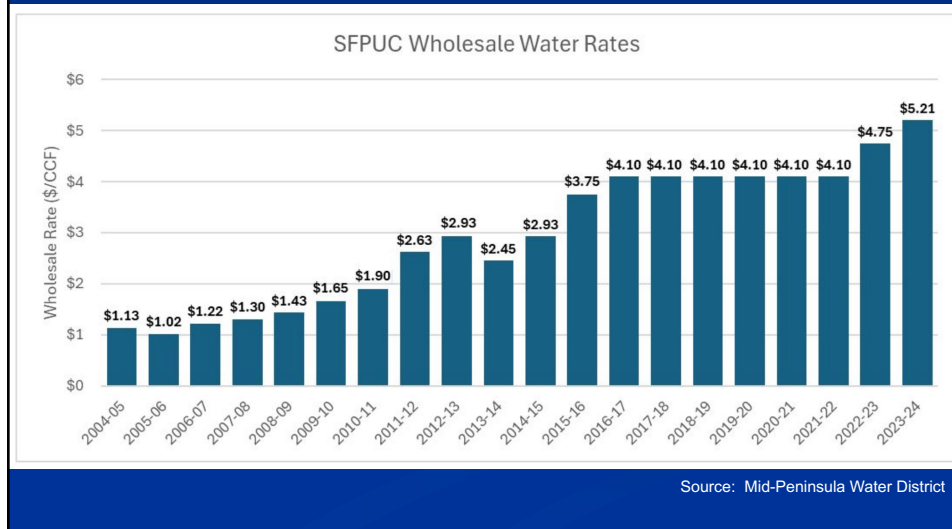
Figure 2-6: Historical Retail and Wholesale Demands on the RWS (2000-2022)



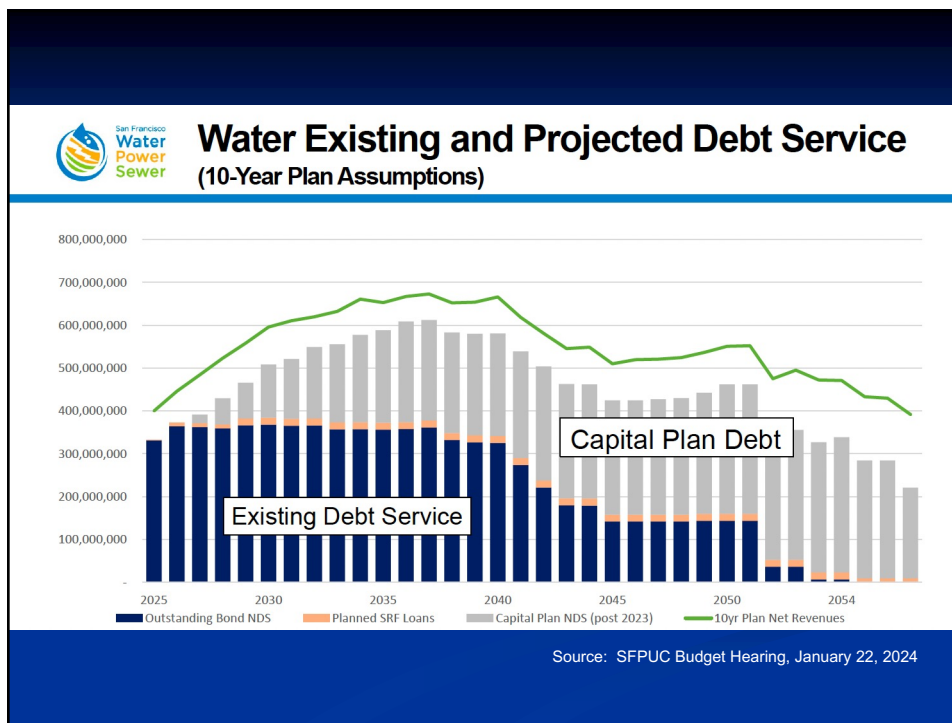
Red lines (added) are projections from the SFPUC's 2000 UWMP.

10

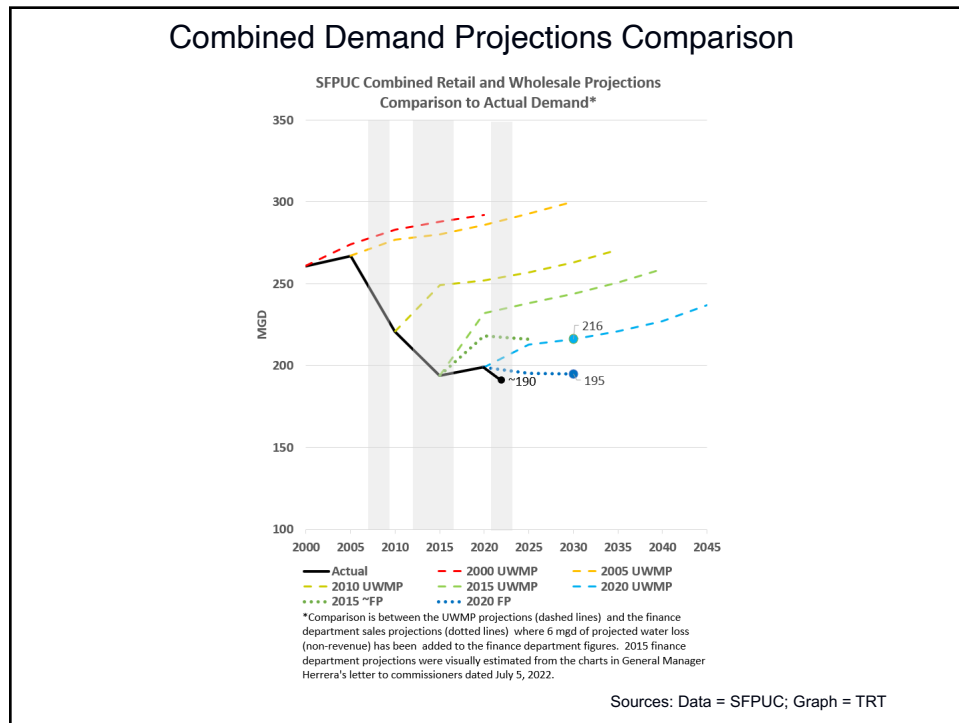
Water rates have quadrupled over the past two decades, primarily to catch up on deferred maintenance and to cover debt service



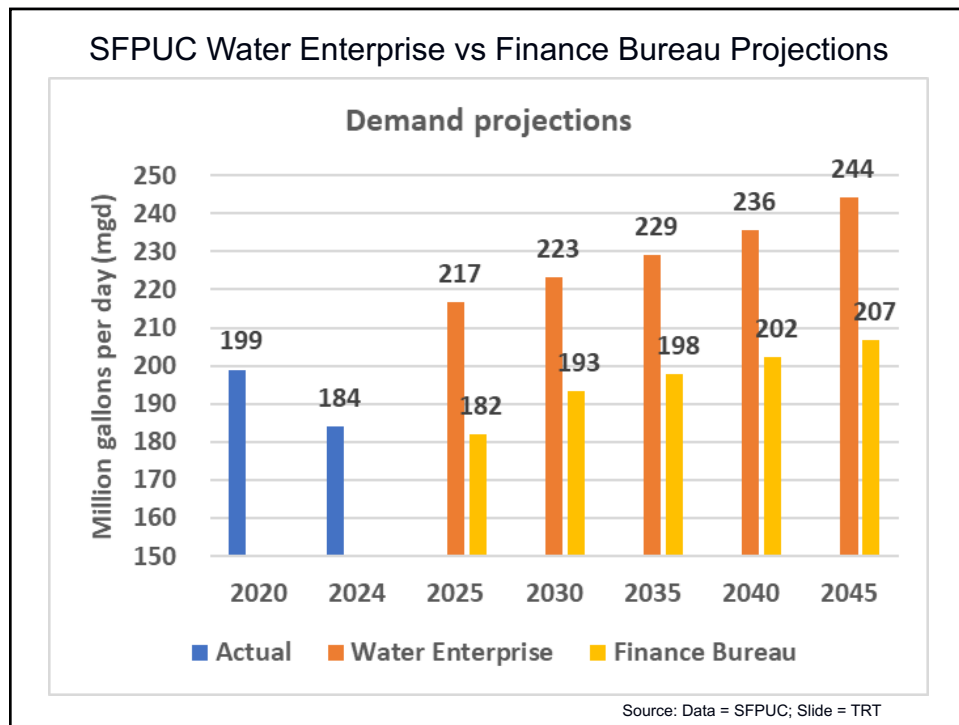
11



12

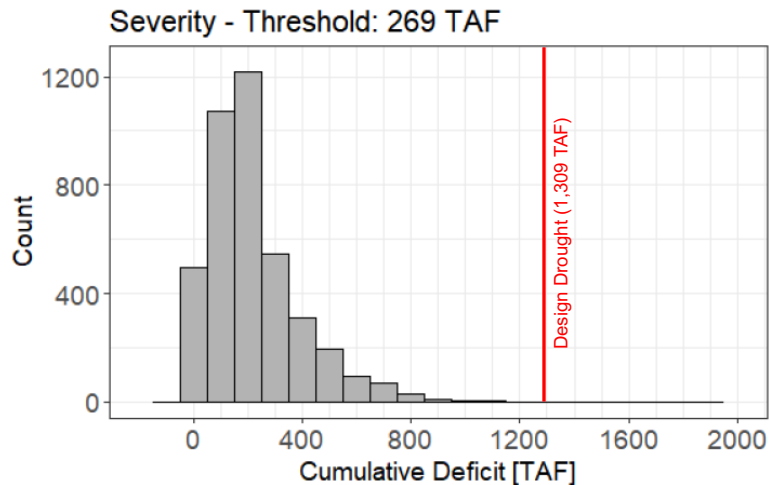


13



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

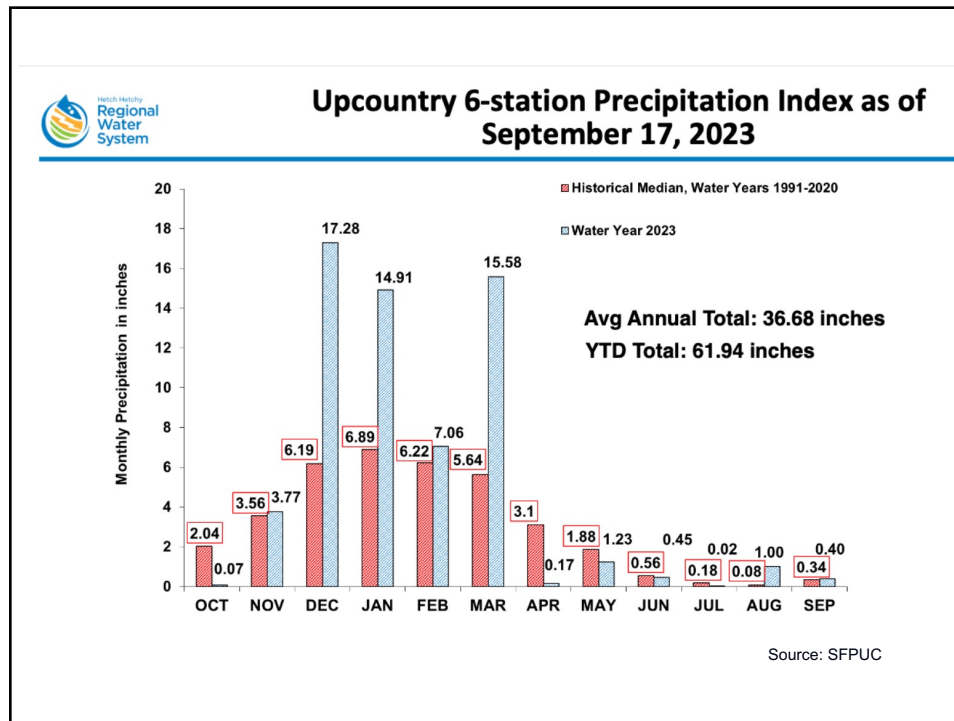
The final LTVA adjusted the return periods for the known droughts downward significantly, suggesting the same should be done for the Design Drought.

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%

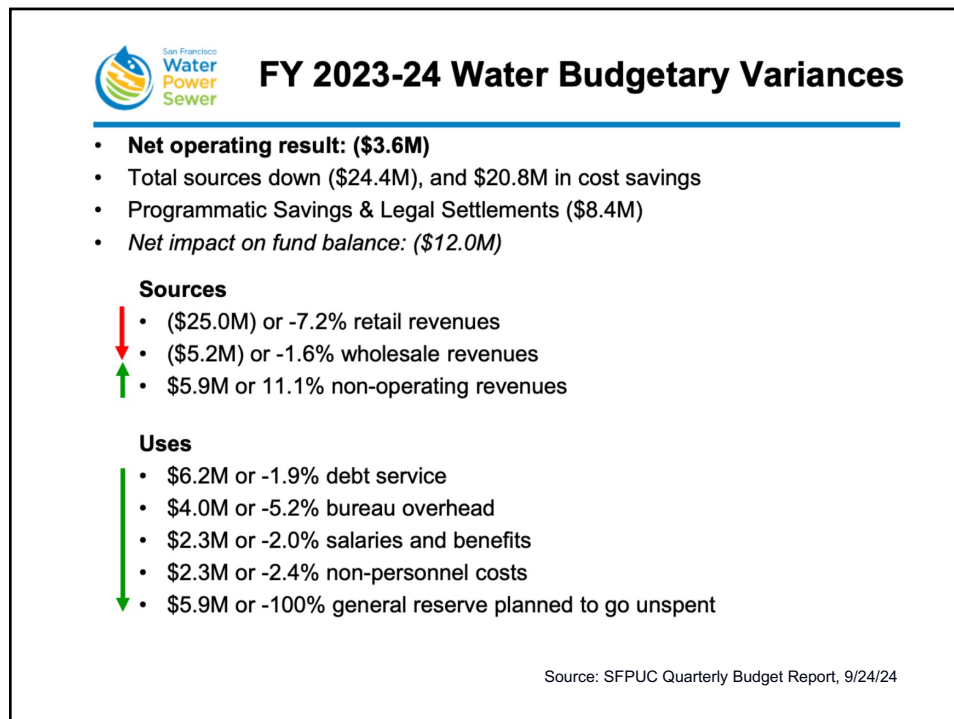
*An adjusted return period for the Design Drought, based on 31% of the return period listed in the 2020 report, suggests it might occur once in 7,841 years.

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

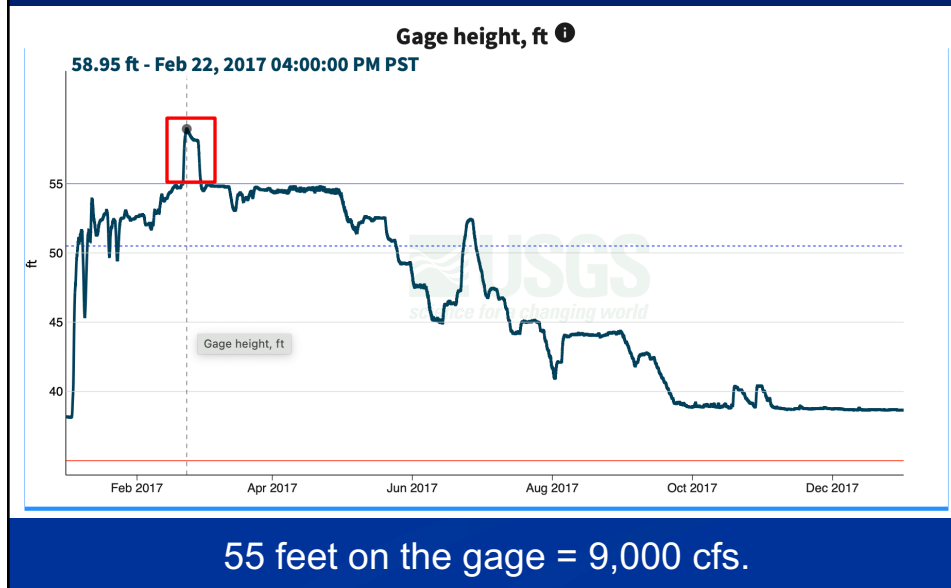
Uses

- ↑ • \$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