BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING

January 9, 2025

Correspondence and media coverage of interest between December 12, 2024 and January 8, 2025

Correspondence

From: Tom Smegal, BAWSCA CEO/General Manager
To: State Water Resources Control Board
Date: January 8, 2025
Subject: Comment Letter – Draft Sacramento/Delta Bay-¬Delta Plan Updates

From: Peter Drekmeier, Policy Director, Tuolumne River Trust
To: Chair Chambers and Members of the BAWSCA Board
Date: January 8, 2025
Subject: SFPUC's Alternative Water Supply Plan

From: Dave Warner
To: BAWSCA Board of Directors
Date: January 8, 2025
Subject: Lower Population Growth Lower Demand and Higher Rates?

From: Diana Waters – Torrance, Ca
Glorhea Matthews – Carson, Ca
To: BAWSCA Board of Directors
Date: January 8, 2025 and December 12, 2024
Subject: Restore Remote Public Comment at BAWSCA

Press Release

From: Los Vaqueros Reservoir JPA
Date: January 8, 2025
Subject: Statement from Chair Anthea Hansen at the January 8 Los Vaqueros Reservoir JPA Board Meeting

From: Modesto Irrigation District, San Francisco Water Power Sewer, Turlock Irrigation District
Date: December 13, 2024
Subject: Tuolumne River Partners Complete Habitat Restoration Project
Pioneering Project includes 10 acres of native species habitat

From: California Department of Water Resources
Date: December 23, 2024
Subject: State Water Project Allocation Increases Following Recent Storms in Northern California

Water Supply Conditions:

Date: January 5, 2025
Source: SF Gate
Article: Last year, 96% of California was drought-free. A new map is far more grim

Date: January 2, 2025
Source: Maven's Notebook
Article: After a warm, dry fall, recent storms provide boost to snowpack but return of dry Conditions loom

Date: December 27, 2024
Source: SF Gate
Article: As Southern California readies for drought, the Bay Area breaks rain records Los Angeles and San Diego are historically dry

Water Policy:

Date: January 7, 2025
Source: Maven
Article: Delta Science Plan update: Crafting solutions for the Delta's 'Grand Challenges'

Date: December 26, 2024
Source: Imperial Valley Press
Article: More water for urban areas, some farms: Biden, Newsom officials announce Long-awaited new water delivery rules

Water Infrastructure:

Date: January 6, 2025
Source: California Natural Resource Agency
Article: San Francisco Bay Sea Level Rise Study Included in Water Resources Development Act of 2024 (WRDA)

Bay Area Water Supply & Conservation Agency

January 8, 2025

State Water Resources Control Board
Division of Water Rights
Attn: Bay- Delta & Hearings Branch
P.O. Box 100 Sacramento, CA 95812-2000
Email: SacDeltaComments@waterboards.ca.gov

RE: Comment Letter – Draft Sacramento/Delta Bay-Delta Plan Updates

Dear State Board:

The Bay Area Water Supply and Conservation Agency (BAWSCA) submits the following comments on the draft updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed (Bay-Delta Plan). The updates are focused on portions of the Plan relevant to the Sacramento River watershed, Delta eastside tributaries (including the Calaveras, Cosumnes, and Mokelumne Rivers), interior Delta, and Delta (Sacramento/Delta) for the reasonable protection of fish and wildlife beneficial uses. The draft updates include provisions based on voluntary agreements (VAs) proposed by public water agencies and state and federal agencies known as the Healthy Rivers and Landscapes Proposal and which are referred to as the "VA pathway" or "VA provisions" that would be regulatory provisions if incorporated into the Bay-Delta Plan. BAWSCA fully supports the VA pathway.

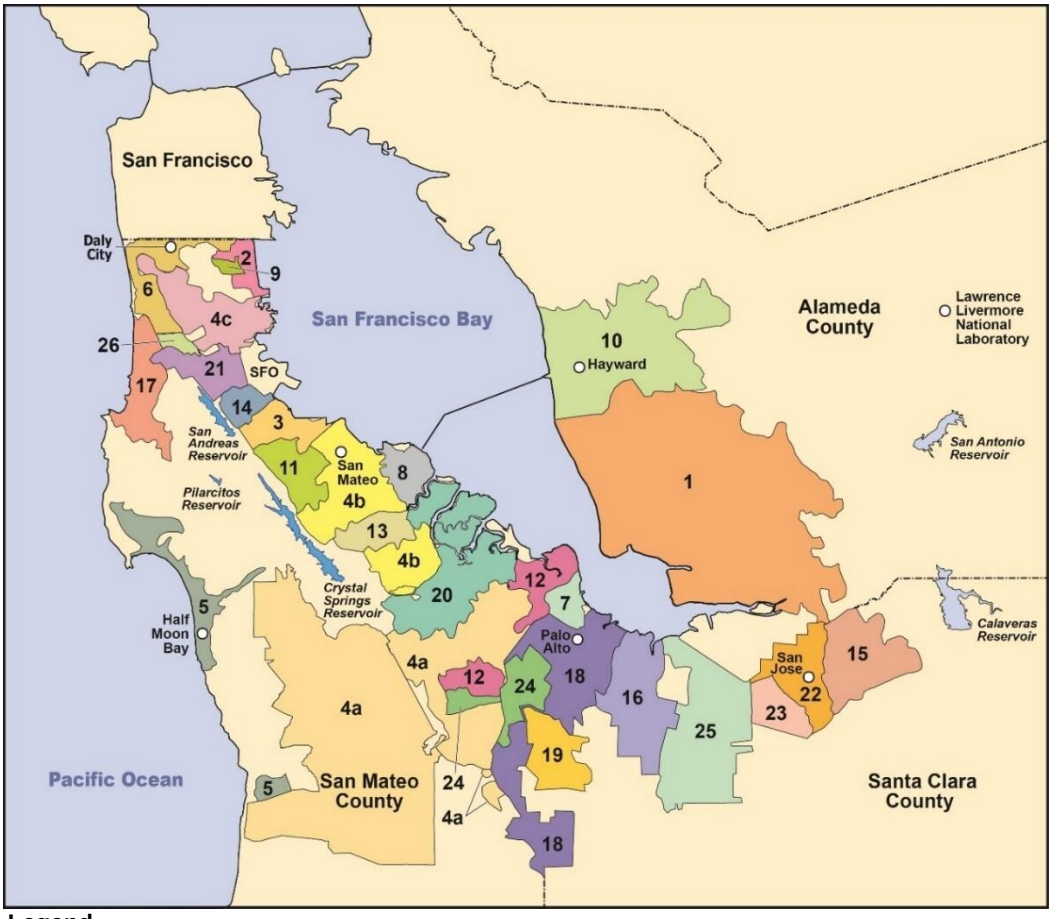
A. BAWSCA's Interest in the Bay-Delta Plan Updates

BAWSCA is a special district that represents the interests of twenty-four cities and water districts and two private utilities that are long term purchasers of wholesale water from the City and County of San Francisco's (CCSF) Regional Water System (RWS), including water originating on the Tuolumne River. The California Legislature created BAWSCA 22 years ago (AB 2058) to protect and assure a reliable water supply for its constituents. (Wat. Code, § 81300 *et seq*.) BAWSCA's governing Board includes representatives from each of its twenty-six member agencies and these twenty-six agencies are hereinafter referred to as "BAWSCA member agencies." BAWSCA member agencies purchase two-thirds of the water delivered by the RWS—meaning, the BAWSCA member agencies are the primary recipient of water from the San Francisco Public Utilities Commission (SFPUC).[1] The BAWSCA member agencies, in turn, provide water to 1.8 million residents, 40,000 businesses, and hundreds of communities in Alameda, San Mateo, and Santa Clara counties. Figure 1 illustrates the BAWSCA service area and member agencies.

[1] Deliveries to BAWSCA member agencies are made annually according to a contractual agreement between each BAWSCA agency and the CCSF. Fifteen of the BAWSCA agencies rely on the RWS for 100 percent of the potable water they distribute and all but one of the BAWSCA agencies obtain more than 50 percent of their supply from the RWS.

In December 2018, as part of the Bay-Delta Plan update, the State Water Resources Control Board (State Board) adopted new and revised flow objectives for the lower San Joaquin River and its tributaries, the Stanislaus, Tuolumne, and Merced Rivers, for the reasonable protection of fish and wildlife beneficial uses and revised salinity water quality objectives for the reasonable protection of southern Delta agricultural beneficial uses—as well as a program of implementation for these objectives (Lower San Joaquin River/southern Delta Plan amendments).

Figure 1: BAWSCA Member Agency Service Area



Legend

1	Alameda County Water District	9	Guadalupe Valley MID	19	Purissima Hills Water District
2	City of Brisbane	10	City of Hayward	20	City of Redwood City
3	City of Burlingame	11	Town of Hillsborough	21	City of San Bruno
4a	CWS – Bear Gulch	12	City of Menlo Park	22	San Jose Municipal Water
4b	CWS – Mid-Peninsula	13	Mid-Peninsula Water	23	City of Santa Clara
4c	CWS – South San Francisco	14	City of Millbrae	24	Stanford University
5	Coastside County Water District	15	City of Milpitas	25	City of Sunnyvale
6	City of Daly City	16	City of Mountain View	26	Westborough Water District
7	City of East Palo Alto	17	North Coast County Water		
8	Estero Municipal Improvement	18	City of Palo Alto		

Source: BAWSCA FY 2021-22 Annual Survey

BAWSCA fully participated in the State Board's process leading up to the 2018 adoption of amendments to the Bay-Delta Plan and its associated Substitute Environmental Document (SED). On March 17, 2017, BAWSCA submitted detailed comments on the 2018 SED and the Plan's adoption (BAWSCA SED Comments).[2] BAWSCA's comments pointed out a number of adverse impacts from the Bay-Delta Plan's Lower San Joaquin River (LSJR) flow objectives. Following the State Board's adoption of the Bay-Delta Plan amendments in December of 2018, BAWSCA intervened in a lawsuit challenging the Plan's adoption and the SED. *San Joaquin Tributaries Authority, et al v. SWRCB* (Tuolumne Superior Court Case No. CV62094). That case was coordinated with 11 other cases in Sacramento Superior Court in what is called the *State Water Board Cases* (Case No. 5013), and is currently on appeal in the Third Appellate District (Case No. C101232).

Most BAWSCA member agencies receive the majority of their water from SFPUC's Hetch Hetchy system on the Tuolumne River, which is subject to the Bay-Delta Plan's LSJR flow objectives. A number of BAWSCA member agencies, however, also receive water from Sacramento/Delta supplies. Specifically, the Alameda County Water District (ACWD), a BAWSCA member agency, is a contractor for State Water Project (SWP) supplies from the Delta. Similarly, BAWSCA member agencies such as the Cities of Sunnyvale, Santa Clara, Mountain View, and Milpitas receive some water supplies from the RWS but also wholesale water supplies from Santa Clara Valley Water District (Valley Water), which has contracts with both the Central Valley Project (CVP) and SWP.

On January 19, 2024, BAWSCA submitted comments on the draft Staff Report/Substitute Environmental Document in support of Sacramento/Delta updates to the Bay-Delta Plan (Staff Report). As its comments explained, the draft Staff Report recognized that approximately half of the Bay Area region's water supply is derived from the Sacramento/Delta. (Staff Report at pp. 7.20-13, 7.20-36)[3] It also recognized that some municipalities in the Bay Area region may not have adequate existing water supplies to meet demand in 2030 during multiple dry years. These municipalities likely would need to obtain new water supplies to prevent dry year shortages. (*Id*. at p. 7.20-38, see also Table 7.20-16.) Modeling results in the Staff Report show that, under the 55 percent unimpaired flow scenario, Sacramento/Delta deliveries to the Bay Area would be reduced by about 25 percent on average, which represents about 15 percent of overall municipal use in the region. (*Id*. at pp. 7.20-36 – 7.20-37; see also Table 7.20-8.) Further, "[i]mplementation of the LSJR/Southern Delta update to the Bay-Delta Plan could be a further constraint on supplies for water users that receive water from the Lower San Joaquin River tributaries." (*Id*. at p. 7.20-38.)

BAWSCA is not only concerned about the Bay-Delta Plan's impact on its member agencies' water supplies derived from the Sacramento/Delta, but it is also concerned about compounded impacts to the greater Bay Area and its service area from the combined requirements of the LSJR flow objectives and the proposed Sacramento/Delta portion of the Bay-Delta Plan. To lessen these impacts while still providing for the reasonable protection of fish and wildlife,

---

[2] BAWSCA Comments on the 2016 Draft Revised Substitute Environmental Document In Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality, *available at* https://www.waterboards.ca.gov/public_notices/comments/2016_baydelta_plan_amendment/nicole_sandkulla.pdf. ("BAWSCA SED Comments")

[3] 2023 Draft Staff Report, *available at* https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/staff_report.html.

BAWSCA fully supports the State Board's thorough evaluation of proposed Voluntary Agreements as an alternative for the Sacramento/Delta update and as a potential Bay-Delta Plan update for the Tuolumne River.[4]

B. BAWSCA Supports the State Board's Thorough Evaluation of Voluntary Agreements as an Alternative to the Bay-Delta Plan Update

While BAWSCA opposed the 2018 adopted Plan, it has consistently supported the evaluation of voluntary agreements as a potential alternative. Fortunately, the State Board's planning process provides a policy and legal pathway for voluntary agreements to be evaluated as an alternative to a prescribed unimpaired flows-only approach. The draft changes to the Bay-Delta Plan include options for incorporating either a regulatory pathway that would not include VAs, or a pathway that would include VAs with regulatory provisions applying to parties not covered by the VAs and to VA parties if the VAs are approved but later discontinued.

The proposed VAs, also called the "Agreements to Support Healthy Rivers and Landscapes," were developed by State, federal, and local agencies working collaboratively to advance a transformational, watershed-wide approach to increase river flows, restore ecosystems and strengthen water supply reliability across the state. The approach proposes a comprehensive, multi-year solution that brings together dozens of water agencies with the State and federal governments to pool resources and take concrete actions to provide targeted river flows and expand habitat in the Sacramento and San Joaquin Rivers and Bay Delta. These environmental improvements are guided by scientific monitoring and collaborative decision making.

This new approach will also allow water managers to adapt operations based on real-time conditions and enable broad coordination across watersheds to manage flows for maximum benefits. This more flexible, adaptive management is critical as climate change increases uncertainty and drives extreme conditions. Specifically, the VAs through flow and non-flow habitat actions propose (1) a new narrative objective to achieve the viability of native fish populations; and (2) to provide the participating parties' share, during implementation of the VAs, to contribute to achieving the existing Narrative Salmon Protection Objective by 2050. The proposed VAs also identify the development of governance and science programs to direct flows and habitat restoration, conduct assessments, and develop strategic plans and annual reports.

State Board Resolution No. 2018-0059 adopted changes to the Bay-Delta Plan, including new and revised narrative and numeric flow water quality objectives for the LSJR. In so doing, the State Board in 2018 directed staff to provide appropriate technical and regulatory information to assist the California Natural Resources Agency in completing a Delta watershed-wide agreement, including potential flow and non-flow measures for the Tuolumne River, and associated analyses. (Resolution No. 2018-0059, ¶ 7.)[5] The State Board encouraged

[4] In 2022, the State Board issued a Notice of Preparation (NOP) for a proposed regulation to implement the Lower San Joaquin River/Southern Delta updates to the Bay-Delta Plan. Separately, the State Board is also considering possible updates for a proposed Voluntary Agreement (VA) for the Tuolumne River. In April 2023, an NOP was issued for a draft Staff Report/Substitute Environmental Document needed to support possible amendments to the Bay-Delta Plan to incorporate the proposed Tuolumne River VA.

[5] State Water Resources Control Board Resolution No. 2018-0059, Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental

stakeholders to continue working together to reach voluntary agreements. It also recognized that "robust voluntary agreements can help inform and expedite implementation of the LSJR flow objectives and provide durable solutions in the Bay-Delta watershed while also providing reasonable protections for fish and wildlife." (*Id*., Recital 21.)

Despite direction to complete a Delta watershed-wide agreement, including an agreement for potential flow and non-flow measures for the Tuolumne River, staff is proposing to bifurcate the VA review and approval process by considering VAs for the Sacramento Delta separately from the Tuolumne River. The VAs were developed to increase river flows and expand habitat in the both the Sacramento and San Joaquin Rivers, their tributaries, and the Bay-Delta. And Tuolumne River flows are specifically included in the VA assets and contribute to Delta inflows and outflows. The Tuolumne River VA is a critical part of the overall proposal and an integral part of improving conditions in the Bay-Delta. BAWSCA urges the State Board to thoroughly evaluate the VAs as an alternative to the Bay-Delta Plan updates, both for the Sacramento/Delta and for the Tuolumne River.

While a comprehensive Plan update was contemplated, BAWSCA supports the objectives of the Bay-Delta Plan and is committed to working with other stakeholders to protect water quality in the Bay-Delta for humans, fish, and other wildlife. BAWSCA strongly believes that a voluntary agreement regarding the required flows that assigns responsibility for those flows is a better option for meeting the objectives of the Bay-Delta Plan than prescribed unimpaired flow requirements. As described in BAWSCA's comments on the SED for the LSJR flows, regulation through an unimpaired flow-only approach will have severe impacts that are excessive, are unacceptable, and will lead to significant economic and environmental impacts in the Bay Area.[6] A voluntary agreement reached with the water right holders is a far better and more equitable option than forced regulation of water rights, which will inevitably lead to prolonged litigation and will prevent the timely implementation of both flow and non-flow measure improvements for the fisheries sought by all who depend on water supplies from the Bay-Delta.

C. As Part of the Bay-Delta Plan Approval, the State Board Must Evaluate the Need for Developing Housing in the Bay Area as Required Under the Porter-Cologne Act

One of BAWSCA's main concerns with the Bay-Delta Plan updates is that it will reduced municipal water supplies to the Bay Area, which in turn has a substantial impact on the need for developing housing in the Bay Area. The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) requires that the State Board consider certain factors in establishing water quality objectives, including "[t]he need for developing housing within the region." (Wat. Code, § 13241(e).) Further, the principles, guidelines, and objectives of State policy for water quality control "shall be consistent *with the state goal of providing a decent home and suitable living environment for every Californian*." (Wat. Code, § 13142, emphasis added.) "The availability of housing is of vital statewide importance" (Gov. Code, § 65580(a)) and "California has a housing

Document, *available at* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0059.pdf

[6] BAWSCA SED Comments, *available at* https://www.waterboards.ca.gov/public_notices/comments/2016_baydelta_plan_amendment/nicole_sandkulla.pdf.

supply and affordability crisis of historic proportions" (*id*. § 65589.5(a)(2)(A)). The Bay Area in particularly continues to suffer from a severe housing shortage. (Plan Bay Area 2050 at p. 33.)[7]

In 1969, the State mandated that all California cities, towns, and counties must plan for the housing needs of their residents—regardless of income. This State mandate is called the Regional Housing Needs Allocation (RHNA). As part of RHNA, the California Department of Housing and Community Development (HCD) determines the total number of new homes the Bay Area needs to build—and how affordable those homes need to be—in order to meet the housing needs of people at all income levels. The Association of Bay Area Governments (ABAG), working with the Housing Methodology Committee (HMC), then distributes a share of the region's housing needs to each city, town, and county in the region. Each local government must then update the Housing Element of its respective general plan to show the locations where housing can be built and the policies and strategies necessary to meet the community's housing needs.

On October 21, 2021, the Metropolitan Transportation Commission and ABAG jointly adopted Plan Bay Area 2050 and its related supplemental reports. Plan Bay Area 2050 connects the elements of housing, the economy, transportation, and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. By 2050, the best estimates suggest the Bay Area's population will grow to just over 10 million residents, and that the number of jobs within the nine counties will climb to more than 5 million. (Plan Bay Area 2050 at p. 3.) The Bay Area has 2.5 million homes and counting throughout its nine counties. Significantly more housing will need to be built throughout the region in order to accommodate a growing population expected to reach 10 million by 2050. (*Id*. at p. 24.) For the period from 2023 to 2031, HCD has identified a need of more than 441,000 housing units in the Bay Area—more than double the amount from the last eight-year cycle (187,000 units between 2015 and 2023). (*Id*. at p. 34.) ABAG has determined that this is a challenging prospect given the higher number of new homes needed. (*Id*.)

On December 16, 2021, updated in November 2022, ABAG adopted the Final RHNA Plan: San Francisco Bay Area, 2023-2031.[8] That adoption was the final step in ABAG's RHNA process that began in October 2019. HCD required the Bay Area to plan for and revise local zoning to accommodate 441,176 additional housing units during the 2023-31 period.[9] Each local government in the Bay Area, including those that lie within the BAWSCA service area, were required to update the Housing Element of its general plan and its zoning to demonstrate how it can accommodate its mandated RHNA numbers pursuant to State law. Housing Element updates were due to HCD by January 31, 2023.

To comply with Water Code section 13241's requirement of considering the need for developing housing within the region, the State Board must consider how RHNA requires that the Bay Area provide for a significant increase in regional housing between now and 2031. The approved final

---

[7] Plan Bay Area 2050, *available at* https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.

[8] Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031, *available at* https://abag.ca.gov/sites/default/files/documents/2022-12/Final%20RHNA%20Methodology%20Report%202023-2031_update_11-22.pdf

[9] RHNA - Regional Housing Needs Allocation, *available at* https://abag.ca.gov/our-work/housing/rhna-regional-housing-needs-allocation.

RHNA plan distributes this requirement among the region's nine counties and 101 cities and towns. From the information provided by ABAG, RHNA requires that the communities that BAWSCA member agencies serve must develop 130,584 total new housing units (22,213 for Alameda County agencies, 44,854 for San Mateo County agencies, and 63,517 for Santa Clara County agencies).[10] That increased housing requirement in turn means increased water demand that the State Board must consider before it approves a Plan update that will reduce water supplies.

The Bay Area housing supply crisis is a major concern that has real impacts for BAWSCA member agencies, especially considering the drastic water supply shortages expected from the Bay-Delta Plan updates. As a condition of tentative map approval, for instance, residential housing subdivisions require verification of a "sufficient water supply." (Gov. Code, § 66473.7(b)(1).) By further example, large residential housing projects require water supply assessments that consider whether the applicable Urban Water Management Plans (UWMP) consider the added demand the project will impose. They also must confirm whether water supplies can meet the housing project's current and future demand. (Wat. Code, § 10910.) These verification and assessment requirements each require that local agencies consider whether a public water system's total projected water supply available during normal, single dry, and multiple dry water years during a twenty-year project will meet the proposed housing project's water demand. (Gov. Code, § 66473.7(a)(2); Wat. Code, § 10910(c)(3).) Consequently, disrupting water supply availability has a direct impact on the Bay Area cities' ability to develop housing.

Yet, despite the Porter-Cologne Act's requirements under section 13241, the State Board's update for the Bay-Delta Plan does not reflect that it considered the need to develop housing anywhere, let alone in the Bay Area. Approximately 18 percent of Californians reside in the Bay Area, which is the second most populous region in California. (Staff Report at p. 7.20-13.) The Staff Report recognizes that Bay Area grew at a rate of 7.5 percent between 2010 and 2016. This increase is higher-than-statewide growth rate and is expected to continue in the future. (*Id.*, at p. 7.16-3.) A major concern of BAWSCA and its member agencies is how the reduced water supplies from implementing the Bay-Delta Plan will prevent the region that BAWSCA member agencies serve from meeting the State-prescribed housing requirements. Put otherwise, BAWSCA is seriously concerned over how the Bay-Delta Plan does not evaluate how it will exacerbate the existing housing crisis in the Bay Area. (See Plan Bay-Area 2050 at p. 98 [indicating that drought and water supply are major environmental concerns for the Bay Area looking out to the mid-21st century].)[11] For more information on these concerns, BAWSCA's January 2024 comments on the draft Staff Report describe in detail the deficiency in the mandated analysis of the need to develop housing in the Bay-Area.

The State Board must consider State-mandated housing needs in the Bay Area under Water Code section 13241. It must determine whether the water supply deficiencies from the Bay-Delta Plan flow objectives would impact the Bay Area's ability to meet those housing needs. Because that was not done, BAWSCA requests that the State Board revisit its analysis and evaluate this critical factor.

---

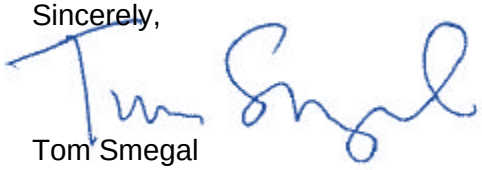
[10] https://abag.ca.gov/sites/default/files/documents/2022-12/Final%20RHNA%20Methodology%20Report%202023-2031_update_11-22.pdf

[11] https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.

D. Conclusion

BAWSCA supports the objectives of the Bay-Delta Plan and remains committed to working with other stakeholders to protect water quality in the Bay-Delta for humans, fish, and other wildlife. This process, however, must include a balancing of all beneficial uses and a consideration of water supply impacts to the Bay Area and resulting economic and housing impacts. BAWSCA believes the Agreements to Support Healthy Rivers and Landscapes is the best option to restore ecosystems and strengthen water supply reliability.

Sincerely,



Tom Smegal
CEO/General Manager

cc: BAWSCA Board of Directors

Tuolumne River Trust

OFFICES
San Francisco

Modesto

Sonora

Mailing Address
P.O. Box 3727
Sonora, CA 95370

Phone
(415) 882-7252

Website
www.tuolumne.org

BOARD MEMBERS
John Kreiter, Chair
Eddie Corwin, Vice Chair
Eric Riemer, Treasurer
Marek Robinson, Secretary
Jose Borroel
Cindy Charles
Harrison "Hap" Dunning
Eric Gonzalez
Camille King
Marty McDonnell
Homero Mejia
John Nimmons
Iris Stewart-Frey
Bart Westcott
Brad Wurtz

January 8, 2025

BAWSCA Chair Tom Chambers and Directors
bawscaboardofdirectors@bawsca.org

Dear Chair Chambers and Directors:

Water rates have quadrupled since the SFPUC's Water System Improvement Program (WSIP) was adopted in 2008 (see slide 1). Now SFPUC wholesale rates are the highest in the state. The WSIP was necessary because the SFPUC had deferred maintenance on the aging Hetch Hetchy Water System for decades.

While we can't reverse past mistakes, we can easily avoid the next big one. The SFPUC's Alternative Water Supply Plan[1] projects the SFPUC might need to develop 92-to-122 million gallons per day (mgd) of extremely expensive alternative water supplies (AWS) (see slide 2) at a cost of $17-to-$25 billion. The water supply needs projection in the AWS Plan is based on inflated water demand projections and the "Design Drought," which might be expected to occur once in 8,000 years.

The SFPUC is experiencing a financial death spiral. As rates increase, consumers use less water, but fixed costs stay the same, so per unit rates must increase further, and the cycle continues. The BAWSCA member agencies should do everything possible to avoid their own death spirals, if it's not already too late.

Here are two simple ways the SFPUC could reduce over-investing in AWS with a stroke of the pen.

- Reducing the Design Drought by one year (it would still be the most conservative planning policy in the state) would reduce the perceived need for AWS by 25 mgd.
- The SFPUC uses two sets of demand projections, one for water supply planning (Water Enterprise) and the other for financial planning (Finance Bureau). If the SFPUC were to use its Finance Bureau sales projections rather than its Water Enterprise projections, this would reduce the perceived need for AWS by another 37 mgd. Both departments have always over-projected demand, but the Finance Bureau has been much closer to actual demand (see slides 3 & 4).[2]

---

[1] SFPUC Alternative Water Supply Plan, February 2024 – https://www.sfpuc.gov/about-us/policies-plans/alternative-water-supply-plan

[2] SFPUC "Water Enterprise and Finance Bureau Water Demand Projections," July 5, 2022 – https://sfpuc.sharefile.com/share/view/sa628ebe9c31e4326b84ffa2976f9f9a3

A Few Key Facts

- Water demand in the SFPUC service area has been under 200 million gallons per day (mgd) for the past 10 years (see slides 5 & 6).

- Hetch Hetchy holds one-quarter of the SFPUC's total system storage. At full system storage, the SFPUC has enough water to last six years (see slide 7).

- In an average year, the SFPUC is entitled to enough water from the Tuolumne River alone (670 mgd) to last three years (based on how Tuolumne water rights are structured), so storage fills quickly after droughts.

The SFPUC's Design Drought

A major problem with current SFPUC planning is that important decisions are based on a manufactured and arbitrary "Design Drought." The SFPUC describes the Design Drought 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."

At first it might seem reasonable to add two years to the worst drought on record for planning purposes, but not when it's the driest two-year period on record. The Design Drought is 72% more severe than the worst drought on record.

A table from the SFPUC's 2021 Long Term Vulnerability Assessment (LTVA)[3] (climate change study) shows that the water supply deficit for a drought comparable to 1987-92 (at 269 thousand acre feet per year [TAF/y] or 240 mgd demand) is 707,390 AF (see slide 9). "Deficit" is the difference between water entitlements and demand, or in other words, water that must come out of storage. The deficit for a drought comparable to the 1976-77 drought (the worst two-year drought on record) was 510,180 AF, making the deficit for the Design Drought 1,217,570 AF. Is it reasonable to plan for a drought that is 72% more severe than the worst drought on record?

Evidence from the LTVA suggests it is not. Based on 100 years of observed data, 1,100 years of tree ring data, and 25,000 simulated model runs, the study (which focused on climate change) did not produce a single drought as severe as the Design Drought (see slide 10).

[3] SFPUC Long Term Vulnerability Assessment, 2021 – https://www.sfpuc.gov/about-us/reports/long-term-vulnerability-assessment

The LTVA includes return periods (likelihood of occurrence) for the known droughts, but not for the Design Drought (see slide 11). This is likely because the SFPUC doesn't want to reveal how unlikely the Design Drought is to occur. Using the information available, we estimate the Design Drought might be expected once in 8,000 years.

Inflated SFPUC Water Demand Projections

SFPUC water demand has declined significantly over the past three decades, and has been under 200 mgd for the past 10 years. Yet, the SFPUC continues to over-project future water demand. Since 2000, water demand has been over-projected by an average of 22%. The SFPUC's 2020 Urban Water Management Plan (UWMP) projected that water demand this year would be 216 mgd. In FY 2023/24 demand was only 184 mgd. It's extremely unlikely demand will increase by 32 mgd this year. UWMP projections, along with the Design Drought, were used to produce the AWS Plan.

Leading up to the SFPUC's adoption of the Water System Improvement Program (WSIP) in 2008, total system demand was projected to reach 285 mgd by 2018. To reduce opposition to the WSIP, the SFPUC agreed to cap water sales at 265 mgd until at least 2018 and make up any deficit through water conservation, recycled water and groundwater use. To pay for the WSIP ($4.8 billion plus debt service – see slide 12), the price of water tripled by 2018 (sending a price signal to consumers) and actual demand in 2018 was 196 mgd – 31% lower than the projection.

Skyrocketing water rates will continue to drive efficiency, possibly forever.

Can the SFPUC Unilaterally Impose Extreme Rationing?

Some staff from BAWSCA member agencies agree that the Design Drought doesn't make sense, but they believe that if the SFPUC says it might impose extreme rationing, then they need to be prepared. In reality, it would be very difficult for the SFPUC to impose rationing above 20% without the consent of the wholesale customers. The Water Supply Agreement states:

> "For Regional Water System shortages in excess of 20%, San Francisco shall (a) follow the Tier 1 Shortage Plan allocations up to the 20% reduction, (b) meet and discuss how to implement incremental reductions above 20% with the Wholesale Customers, and (c) make a final determination of allocations above the 20% reduction. After the SFPUC has made the final allocation decision, the Wholesale Customers shall be free to challenge the allocation on any applicable legal or equitable basis."

Imagine what would happen if the SFPUC tried to impose rationing above 20%. People would visit Crystal Springs Reservoir and see that it was virtually full. They might visit Hetch Hetchy or another SFPUC reservoir and witness similar conditions. Prolonged droughts impact the SFPUC's water bank at Don Pedro Reservoir, which was established to maintain high storage in the SFPUC's reservoirs (see slide 8). If the SFPUC were to attempt to impose rationing above

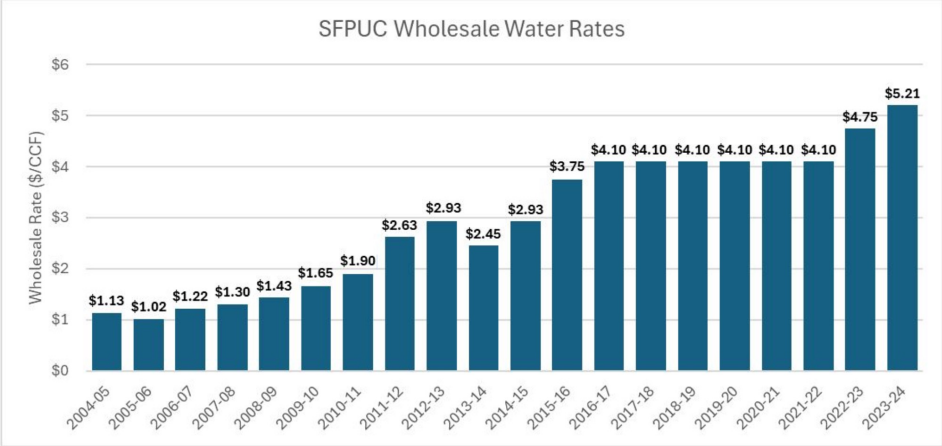
20%, there would be an uproar, and they would be forced to acknowledge how much water they had in storage – likely enough to last at least three years.

Thank you for the opportunity to share my thoughts.

Sincerely,

Peter Drekmeier
Policy Director
peter@tuolumne.org

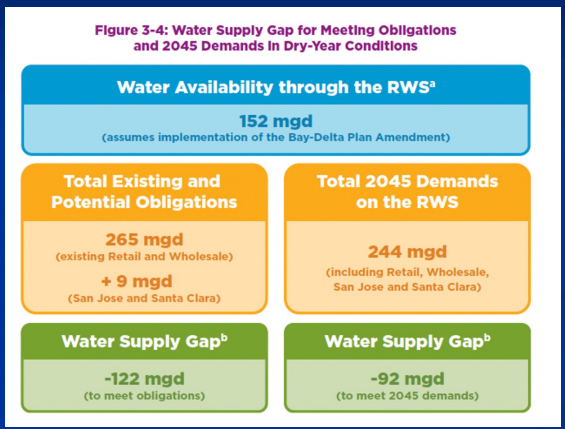
Water rates have more than quadrupled over the past two decades, primarily to catch up on deferred maintenance and to cover debt service.



Source: Mid-Peninsula Water District

1

The SFPUC's 10-Year Capital Plan does not include the Alternative Water Supply Plan



Developing 92 mgd (SFPUC inflated demand) would add $17 billion to the budget.

Developing 122 mgd (contractual obligations plus San Jose and Santa Clara) would add $25 billion to the budget.

2

"Water Enterprise and Finance Bureau Water Demand Projections"

Water Enterprise

"…**the 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."

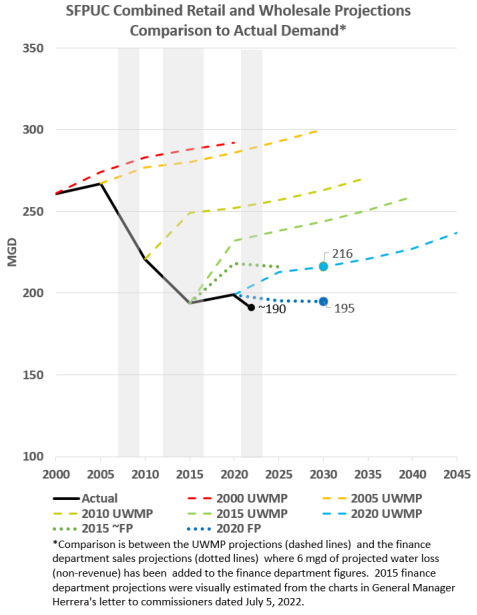
Finance Bureau

"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**."

Source: SFPUC, July 5, 2022

3

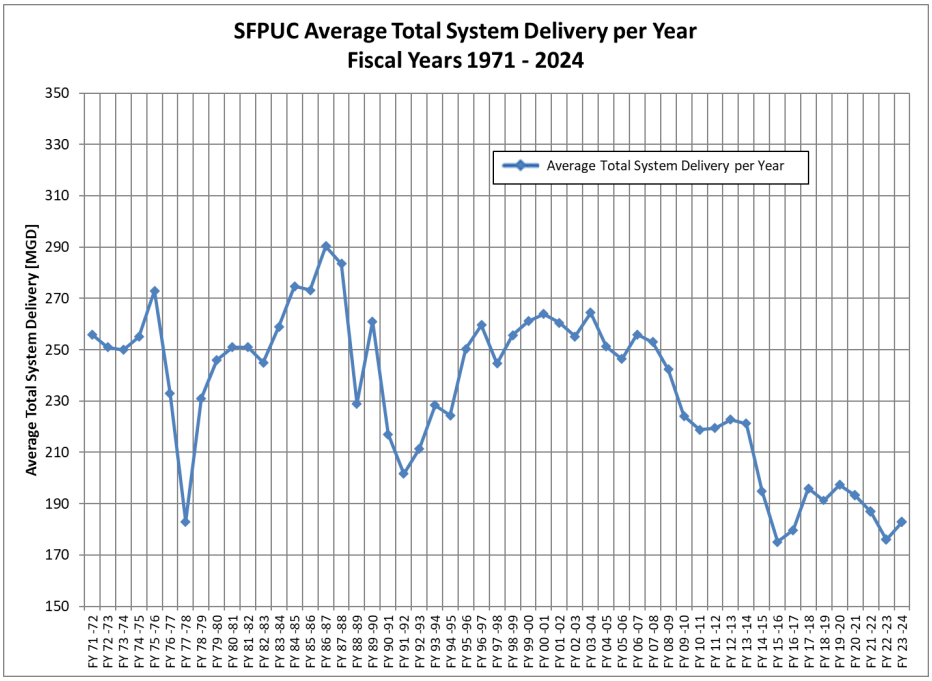
Combined Demand Projections Comparison



*Comparison is between the UWMP projections (dashed lines) and the finance department sales projections (dotted lines) where 6 mgd of projected water loss (non-revenue) has been added to the finance department figures. 2015 finance department projections were visually estimated from the charts in General Manager Herrera's letter to commissioners dated July 5, 2022.

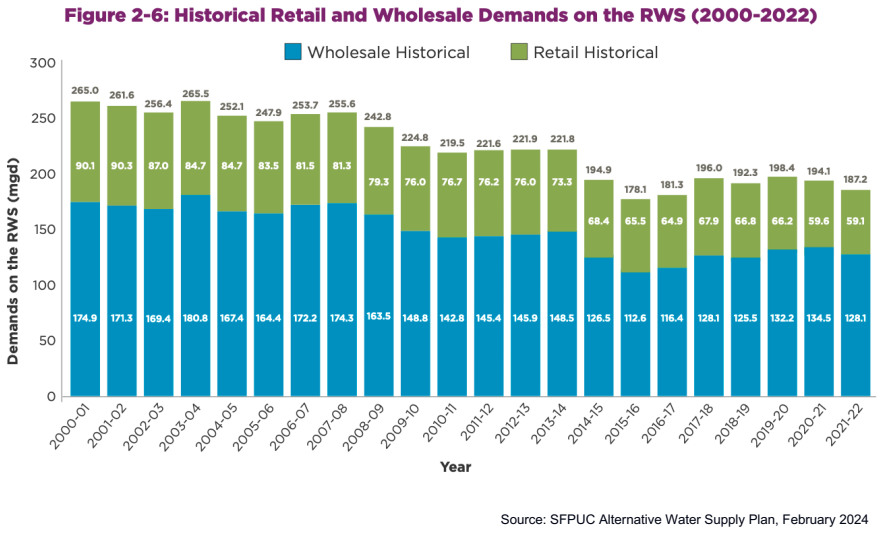
Sources: Data = SFPUC; Graph = TRT

4



5

SFPUC Actual Water Demand



6

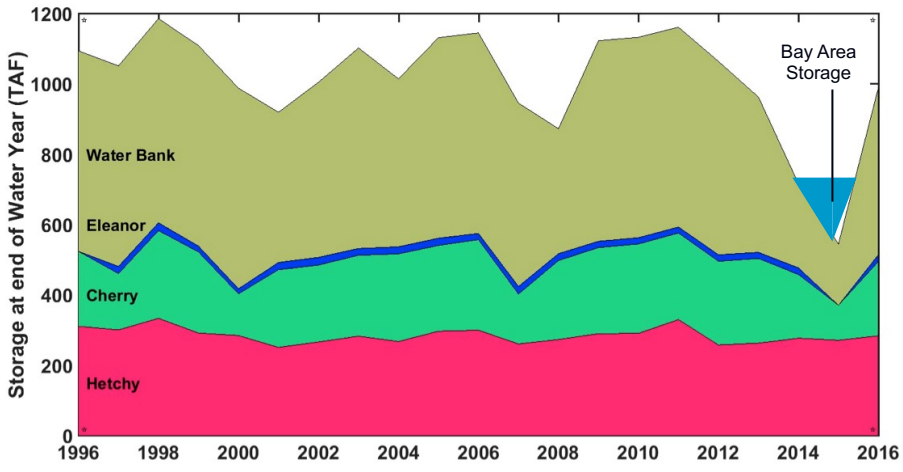
December 2, 2024 Reservoir Storage

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	240,800	360,360	119,560	66.8%	**68.3%**
Cherry	246,700	273,345	26,645	90.3%	-
Eleanor	16,250	27,100	10,850	60.0%	-
Water Bank	567,216	570,000	2,784	99.5%	**98.0%**
Total Tuolumne Storage	**1,070,966**	**1,230,805**	**159,839**	**87.0%**	-
Local System					
Calaveras	78,842	96,670	17,828	81.6%	-
San Antonio	48,380	53,266	4,886	90.8%	-
Crystal Springs	52,445	68,953	16,508	76.1%	-
San Andreas	15,846	18,675	2,829	84.9%	-
Pilarcitos	2,327	3,125	798	74.5%	-
Total Local Storage	**197,840**	**240,689**	**42,849**	**82.2%**	-
Total System Storage	1,268,806	1,471,494	202,688	**86.2%**	**78.1%**
Total without water bank	701,590	901,494	199,904	**77.8%**	-

Source: SFPUC

7

SFPUC Tuolumne River Storage



Source: SFPUC

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

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

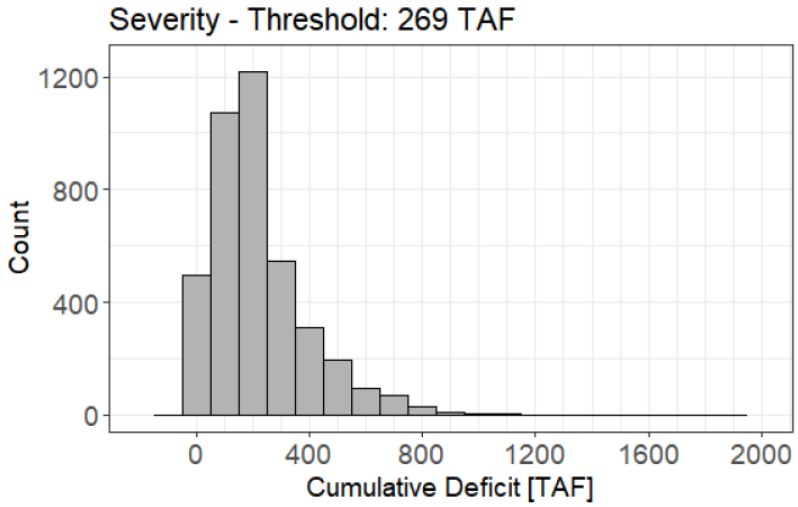
Table 3-9. Extracted Drought Events from Historical Tuolumne Flow at La Grange for Two Different Thresholds.
For each threshold, the drought events are sorted by decreasing severity.

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

9

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



Source: SFPUC LTVA, Figure 3-29

10

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.

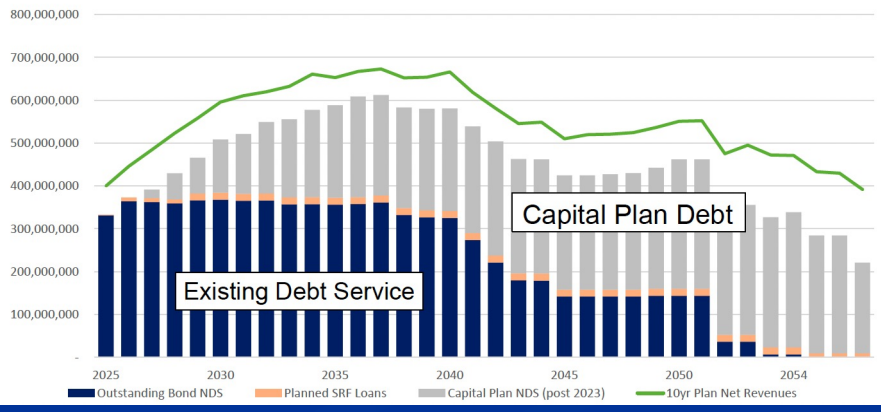
11

The BAWSCA agencies are responsible for 2/3 of the SFPUC’s regional water costs and debt

San Francisco Water Power Sewer

Water Existing and Projected Debt Service

(10-Year Plan Assumptions)



Source: SFPUC Budget Hearing, January 22, 2024

12

January 8, 2025

Re: **Lower Population Growth Lower Demand and Higher Rates?**

Dear BAWSCA Board Members,

Thank you for your service!

As you know, our water rates are already high. You've likely noticed this in your recent water bills. And they're going higher, as you've heard before.

We face multiple risks of our water rates continuing to climb well above the inflation rate and contributing to our high cost of living. In this letter you will see how slower than projected population growth is a large risk to water rates, driving down demand which forces rates up. Other risks include the SFPUC's capital spending, its significant dependence on debt, along with the consequence of higher water rates further driving down demand.

As Board members, whether new to BAWSCA or long timers, combined you represent 1.8 million water users. You also are by far and away the SFPUC's biggest water customer. You are all equally important and you are all investing your time in BAWSCA. Please be vocal and press your BAWSCA team to press the SFPUC to hold down water rates or at least slow their growth. Make sure you are well informed about risks, actions taken and decisions being made. Your constituents are depending on you. You'll see some suggested actions later in this letter.

Population Growth and Water Demand

Of the variables it studied, BAWSCA's innovative 2022 demand study found that population growth was by far the most influential variable that affected water demand. In September last year, California's Department of Finance issued updated population projections for California. As you are likely aware, the projections showed very low growth.

Applying these lower projections to the data from both BAWSCA's 2022 demand study and from the SFPUC's 2020 Urban Water Management Plan (UWMP), 2045 regional water system (RWS) demand, which was projected to be 244.1 mgd, drops to 187.3 mgd. For BAWSCA, 2045 RWS demand drops from 170.6 mgd to 135.3 mgd. This

drop is solely from lower population growth. Figure 1 summarizes how the lower demand was calculated.

These population figures may not materialize. A lot can change in 20 years. But the point is, shouldn't we be prepared in case they do occur?

RWS Demand	2020 UWMP & 2022 Demand Study			With 2024 Population Projections*		
	2020 Actual	2045 Projected	Change	2020 Actual	2045 Projected	Change
BAWSCA						
Population	1,868,090	2,456,566	32%	1,868,090	1,948,361	4%
Total demand (mgd)	203.5	260.4	28%	203.5	206.5	1%
RWS demand (mgd)	132.1	170.6	29%	132.1	135.3	2%
GPCD	109.0	106.0	-3%	109.0	106.0	-3%
SFPUC Retail						
Population	899,732	1,251,214	39%	899,732	884,741	-2%
RWS demand (mgd)	66.5	73.5	11%	66.5	52.0	-22%
GPCD	73.9	58.7	-21%	73.9	58.7	-21%
Total RWS demand (mgd)	198.6	244.1	23%	198.6	187.3	-6%

* Per California State Department of Finance as of September 2024

** UWMP figures from BAWSCA's 2022 demand study

Figure 1: Lower population growth reduces 2045 Regional Water System demand projections from 244.1 mgd to 187.3 mgd

Lower Demand and Water Rates

Lower water demand means that the Regional Water System's fixed costs have to be spread over a smaller amount of water sales, driving rates up. As figure 2 below shows, 2034 water rates increase an additional $300 per acre foot just due to lower demand. This means our water rates would go up another ~$1,000 per acre foot in the next 9 years. These rates do not include any investment in alternative water supplies (AWS), which the SFPUC states would be needed for any RWS demand exceeding 152 mgd (meaning there would be a supply gap of 35 mgd). Investing in AWS would push water rates up higher still.

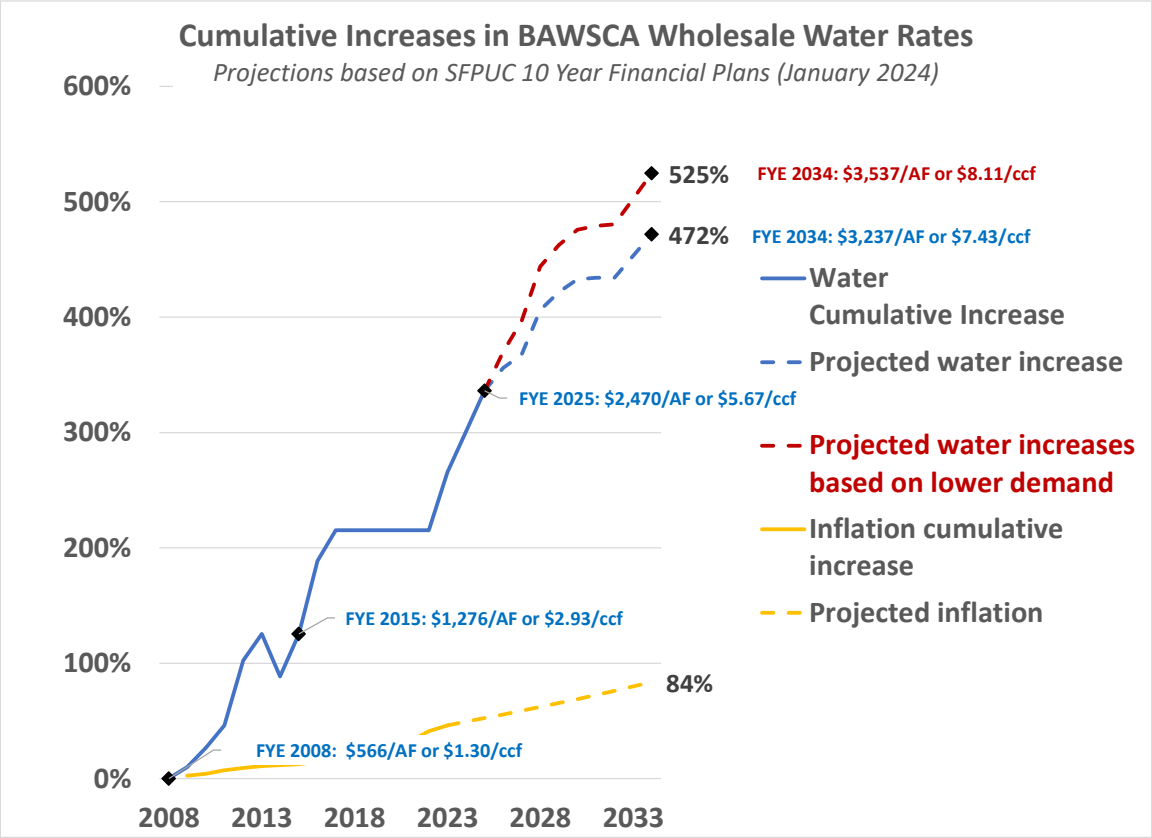


Figure 2: BAWSCA wholesale water rate increases to 2034 according to plan and in the scenario of lower population growth according to the California Department of Finance.

What You Can Do as a Board Member

Express your concern. Ask questions.

Ask BAWSCA staff and the SFPUC if the data in this letter is accurate.

Are your constituents concerned about the high price of water? Ask. Palo Alto found that its constituents were concerned about reliability, environmental benefits and the cost of water.

What's the level of risk associated with the SFPUC's drought planning model? What's the expected return period for such a drought? Don't we need to know this to judge the reliability of our water supply and how to manage costs?

The 2024/25 10 year capital plan for the RWS jumped 50% in one year, causing projected 2045 water rates to jump $400 in one year alone. How well does BAWSCA scrutinize SFPUC spending for cost benefit tradeoffs? A basic question: Does BAWSCA

know what an incremental capital investment of $100 million does to our water rates? BAWSCA staff should know this. You should have this information at your fingertips. How many projects has BAWSCA asked the SFPUC to delay to help hold down water rates?

The SFPUC has a terrible track record on estimating project costs. The Q4 FY'24 capital spending report showed budgeted RWS projects are already over budget by $300 million, or 30% even though the projects are still in their early stages. How carefully does BAWSCA monitor and understand the causes of these overages? How well does BAWSCA scrutinize change orders?

There are respected professionals saying that we will see demand continue to decline. How do we prepare for this without causing the price of water to skyrocket? Is it a scenario we should be prepared for?

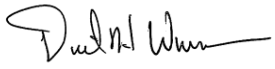
With the large amount of debt, flat or shrinking demand and increased spending, what's the risk of the SFPUC getting into financial trouble as bad or worse than the San Diego County Water Authority (SDCWA)? The Board should be educated on the SDCWA's experience. In short, the SDCWA invested in the Carlsbad desal plant, projecting increased demand, but the demand didn't materialize because the high price of water drove down demand. The Board stalled, hoping demand would recover while eating into reserves, then tried to raise rates 18% to mitigate the financial shortfall; the San Diego mayor objected and they compromised on a lower rate, further eating into limited reserves. And one of the bond rating agencies issued a negative outlook, potentially increasing the cost of borrowing. What's the risk of the SFPUC getting into this situation? Is there a risk ratepayers will have to do a bailout?

Have an open discussion during the Board meeting on these issues. Are other board members finding that their constituents are concerned about the price of water?

The BAWSCA Board meets only 6 times a year. Please ask the chair to carve out time for these discussions.

Ask yourself, what are ways I can improve my advocacy for my constituents?

Kind regards,



Dave Warner

From: Diana Waters (dianawaters09@gmail.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Public Comment at BAWSCA
Date: Tuesday, January 7, 2025 1:25:37 PM

Dear BAWSCA Board of Directors,

Dear Board Members,

The removal of remote participation in BAWSCA Board meetings has reduced the transparency of the agency and has excluded the voices of the elderly, working-class, and caregiving community members from sharing their vital perspectives on the actions BAWSCA takes.

Remote participation became the new normal during the pandemic and remains in place in the majority of California cities. BAWSCA has made great progress by returning livestreams of Board meetings and the Agency must continue by implementing remote public comment services. As BAWSCA considers continuing its anti-environmental lawsuit against the State Water Board and chooses to support environmentally harmful voluntary agreements (VAs), the Board must remain transparent and ensure the voices of marginalized communities are heard at public meetings.

The Board must restore remote participation, including remote public comment. Thank you for recognizing the impact that remote participation has on increasing the accessibility and transparency of BAWSCA.

Sincerely,

Sincerely,

Diana Waters
19901 Prairie Ave
Torrance, CA 90503
dianawaters09@gmail.com
(213) 222-1234

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Member Care at Sierra Club at member.care@sierraclub.org or (415) 977-5673.

(This page was intentionally left blank)

From: Glorhea Matthews (gdaka57@msn.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Public Comment at BAWSCA
Date: Thursday, December 12, 2024 7:02:32 PM

Dear BAWSCA Board of Directors,

Dear Board Members,

The removal of remote participation in BAWSCA Board meetings has reduced the transparency of the agency and has excluded the voices of the elderly, working-class, and caregiving community members from sharing their vital perspectives on the actions BAWSCA takes.

Remote participation became the new normal during the pandemic and remains in place in the majority of California cities. BAWSCA has made great progress by returning livestreams of Board meetings and the Agency must continue by implementing remote public comment services. As BAWSCA considers continuing its anti-environmental lawsuit against the State Water Board and chooses to support environmentally harmful voluntary agreements (VAs), the Board must remain transparent and ensure the voices of marginalized communities are heard at public meetings.

The Board must restore remote participation, including remote public comment. Thank you for recognizing the impact that remote participation has on increasing the accessibility and transparency of BAWSCA.

Sincerely,

Sincerely,

Glorhea Matthews
19527 Reinhart Avenue
Carson, CA 90746
gdaka57@msn.com
(213) 718-3779

This message was sent by KnowWho, as a service provider, on behalf of an individual associated with Sierra Club. If you need more information, please contact Member Care at Sierra Club at member.care@sierraclub.org or (415) 977-5673.

(This page was intentionally left blank)

For Immediate Release: 1/8/2025
Contact: Taryn Ravazzini, (916) 206-5367

Statement from Chair Anthea Hansen
January 8 Los Vaqueros Reservoir JPA Board Meeting

Board of Directors

Anthea Hansen, Chair
San Luis & Delta-Mendota Water Authority

Michael Tognolini, Vice Chair
East Bay Municipal Utility District

Ric Ortega, Secretary
Grassland Water District

Paul Sethy, Treasurer
Alameda County Water District

Kathy Narum
Zone 7 Water Agency

Antonio Martinez
Contra Costa Water District

Dennis Herrera
San Francisco Public Utilities Commission

John Varela
Santa Clara Valley Water District

Executive Director
Taryn Ravazzini

Today, the Los Vaqueros Reservoir Joint Powers Authority (JPA) approved the resolution to officially dissolve the JPA and directed staff to proceed with all actions to support this decision.

Without question, this is a significant and somber day for the JPA and the Phase 2 Los Vaqueros Reservoir Expansion Project (Project). As we move forward with the dissolution process, it is important to document the contributions and lessons learned from this effort. The Phase 2 Expansion Project brought together diverse partners representing urban, agricultural, and environmental entities to work together to maximize broad public benefits and regional resilience.

While the Joint Powers Authority (JPA) was specific to this reservoir expansion, the collaboration sparked important discussions and has helped to foster among the JPA members the possibility of new opportunities for continued regional partnerships and integration. Under the JPA umbrella, relationships have been created and, in other cases, strengthened. We shouldn't lose sight of the importance of the need for agencies representing diverse interests to work together as a model for the future.

History has taught us that timing is a critical component in bringing water projects to the finish line. The California State Water Project design and funding took many twists and turns before it was ultimately completed. Because large, complex water infrastructure projects often take decades to complete, ensuring a collaborative, durable path forward is essential. It is also an extremely challenging endeavor.

I have been so honored to lead an amazing team of professionals. From our Executive Director and the project management team to our legal counsel, we have been fortunate to assemble veteran water experts to facilitate the needs of the JPA members and gain broad support and funding. Speaking for myself, it has been an incredibly rewarding experience to work alongside and to witness firsthand the dedication and commitment of time and expertise by the JPA members, their board members and staff, both past and present, as we worked to move this project forward.

My hope is that this will not be the end of collaboration between the JPA members, but the beginning of an ongoing dialogue which leads to the successful completion of projects that secure regional water resilience for the future.

- more -

Los Vaqueros Reservoir Joint Powers Authority
The Los Vaqueros Reservoir Joint Powers Authority (JPA) was formed in 2021 and provides governance and administration for the Phase 2 Los Vaqueros Reservoir Expansion Project (Project). The Los Vaqueros Reservoir is an off-stream reservoir owned and operated by the Contra Costa Water District.

The Project was intended to increase Bay Area and Central Valley water supply reliability, develop water supplies for wildlife refuges, and improve water quality while protecting Delta fisheries and providing additional Delta ecosystem benefits. When completed, the Los Vaqueros Reservoir capacity was to be increased from 160,000 acre-feet to 275,000 acre-feet with new and modified conveyance facilities added to provide environmental, water supply reliability, operational flexibility, water quality, and recreational benefits.

###

FOR IMMEDIATE RELEASE
December 13, 2024

Nancy Crowley
San Francisco Public Utilities Commission
ncrowley@sfwater.org
(628) 629-1748

Melissa Williams
Modesto Irrigation District
melissa.williams@mid.org
(209) 526-7390

Josh Weimer
Turlock Irrigation District
jmweimer@tid.org
(209) 883-8361

Tuolumne River Partners Complete Habitat Restoration Project
Pioneering project includes 10 acres of native species habitat

LA GRANGE, CA – As part of our ongoing commitment to provide a healthy habitat for fish to thrive, Tuolumne River partners Modesto Irrigation District (MID), Turlock Irrigation District (TID) and the San Francisco Public Utilities Commission (SFPUC) are excited to announce the construction completion of the Tuolumne River Mainstem Channel Restoration Upstream of Old La Grange Bridge Project.

MID, TID and the SFPUC provided more than 7.5 acres of mainstem restoration, more than 2.5 acres of floodplain habitat and more than 50,000 cubic yards of spawning gravel. These actions are expected to result in a five-fold increase of trout and salmon habitat upstream of Old La Grange Bridge.

“There is tremendous power in partnerships,” said Dennis Herrera, General Manager of the SFPUC. “Together, we’re doing the work to protect and restore native fish populations on the Tuolumne River. The Old La Grange Bridge Habitat Restoration Project is also a preview of the future. This project is an example of many projects to come as part of our longer-term commitment to significantly invest in restoring habitat on the Tuolumne through the Healthy Rivers and Landscapes Program.”

“We remain committed to be good stewards of the Tuolumne and implement solutions to provide a healthy river habitat,” said TID General Manager Brad Koehn. “There is new spawning and in-channel habitat, and we’re encouraged as we’re already seeing fish spawning in the new gravel.”

Spawning habitats were created by cleaning, washing and returning gravel originally removed from the river during the Gold Rush, to the lower Tuolumne River in the form of riffles and gravel bars. In addition to the creation of a spawning habitat, large wood features and boulder clusters were added to increase in-channel habitat complexity and diversity.

Watch a video of the Old La Grange Bridge Project.

Project design and implementation was led by McBain and Associates Applied River Sciences in collaboration with and valuable input from experts from the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife and the Tuolumne Band of Me-Wuk and Northern Valley Yokuts tribes. Njirich and Sons, Inc. were retained to complete the work, with their team that included Ford Construction.

The project began in June 2024 and was completed four months later in mid-October. The total cost of the project was estimated at $7.8 million, including funding from a grant from the California Department Fish and Wildlife coupled with MID, TID and the SFPUC's self-funded commitment of $2.3 million. The project was successfully completed under budget.

"After years of studying the river, we are thrilled to apply what we've learned and execute solutions with real-life benefits," said MID General Manager Jimi Netniss. "This is one of many projects to come that solidifies our commitment to creating a vibrant environment for Tuolumne River fish."

MID, TID and the SFPUC have made a historic, self-funded commitment of $80 million to design and implement a collaborative, holistic habitat restoration program along the lower Tuolumne River as part of the Healthy Rivers and Landscapes Program. By 2030 and with the help of renowned experts River Partners and Applied River Sciences, we aim to develop 77 acres of suitable salmon rearing and floodplain habitat and add approximately 100,000 tons of gravel in specific reaches of the river for optimal spawning and rearing.

# # #

CALIFORNIA DEPARTMENT OF
WATER RESOURCES

Published: Dec 23, 2024
Contact:
Ryan Endean, Public Affairs, Department of Water Resources
media@water.ca.gov

State Water Project Allocation Increases Following Recent Storms in Northern California

The California Aqueduct East Branch runs into the Mojave Siphon Powerplant, under the Mojave River bed and the Las Flores Valley floor, through the power plant before entering Silverwood Lake. The plant is situated near Silverwood Lake's Cedar Springs Dam in Hesperia, California. Photo taken May 13, 2023.

Above average precipitation and snowpack allow for an increase in planned water deliveries for 2025

SACRAMENTO, Calif. – Today, the Department of Water Resources (DWR) announced an update to the State Water Project (SWP) allocation forecast for 2025. The allocation has increased to 15 percent of requested supplies, up from the initial allocation forecast of 5 percent announced earlier this month. The SWP provides water to 29 public water agencies that serve 27 million Californians.

Strong storms in late November and early December have helped boost statewide precipitation to just above average for this time of year. Reservoir levels have also increased because of the storms. The initial allocation forecast announced on December 2 had not accounted for these storms because the data was not yet available to water managers. Prior to the second half of November, the start of the water year had been dry and warm.

“The past several weeks has brought welcome rain and snow to Northern California and these improved conditions have allowed the State Water Project to increase the allocation forecast to the benefit of millions of Californians,” said DWR Director Karla Nemeth. “While we typically wait to provide an update until January, we felt it important to let our State Water Contractors know of the increase as soon as possible to allow them to better plan their water supply for the year ahead.”

State water managers will continue to monitor precipitation and snowpack conditions as well as account for dry soils that may soak up some of the spring runoff following record heat this past summer. Additionally, Southern California remains very dry and has not benefited from the atmospheric rivers experienced so far this season.

“California is still in the early months of our wet season and as recent history has shown, conditions can change quickly,” said Dr. Michael Anderson, State Climatologist. “While Northern California has benefitted from early season storms, dry conditions in the new year can leave us with below average totals when warmer weather arrives."

Each year, DWR provides SWP allocation forecasts based on available water storage, projected water supply, and water demands. Allocations are updated monthly as snowpack, rainfall, and runoff information is assessed, with a final allocation typically determined in May or June. As the winter progresses, if California sees an increase in rain and snowfall, the allocation forecast may increase. The next update will likely come in January and will use information from the first snow surveys of the season.

The allocation forecast notice to State Water Contractors and historical data on SWP allocations are available at https://water.ca.gov/programs/state-water-project/management/swp-water-contractors.

# # #

Last year, 96% of California was drought-free. A new map is far more grim.
SF Gate | January 5, 2025 | Amanda Bartlett,

Water flows in the LA River on Friday, Jan. 3, 2025. Myung J. Chun/Los Angeles Times via Getty Image

Despite recent rounds of winter rain and powerful waves that pummeled the coastline, most of California is continuing to bake under a deep drought, with over half of the state facing “abnormally dry” conditions at the start of the new year, the U.S. Drought Monitor’s latest map shows.

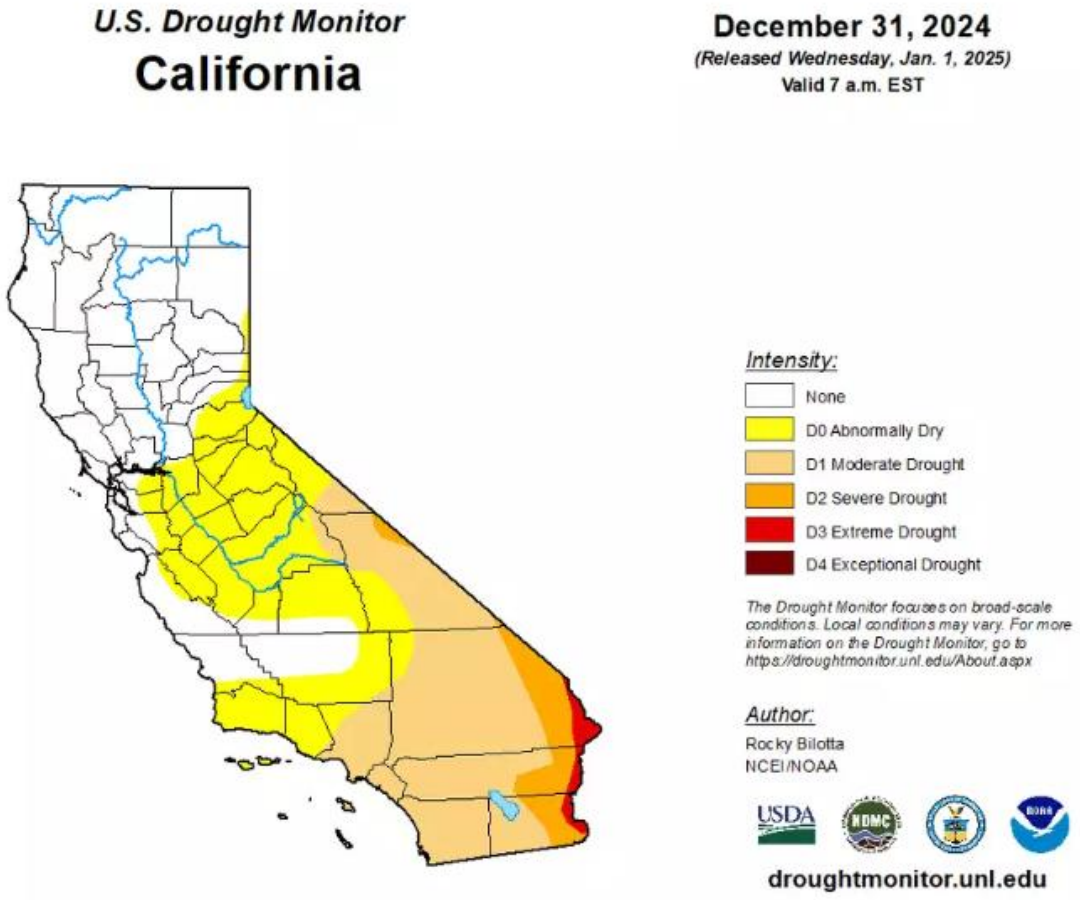
Released on Wednesday, the map revealed 59.1% of the state is impacted by drought conditions from as far north as Lassen County, stretching down into the Bay Area and most of the Central Valley, and worsening in slivers of Southern California, where “moderate” to “extreme” drought conditions were recorded in San Bernardino, Riverside and Imperial counties. Affected portions of the Bay Area include parts of Alameda, Contra Costa and Santa Clara counties.

An inch or more of rain fell across most of Northern California as December drew to a close, with some regions experiencing 8 more inches of precipitation than normal, according to Rocky Bilotta, an analyst with the National Oceanic and Atmospheric Administration and a map author.

Yet, during that same time frame, “moderate drought was expanded” across Southern California, Nevada and Arizona, while abnormal dryness proliferated throughout California, Arizona, Utah, Colorado and New Mexico.

How is the data determined?

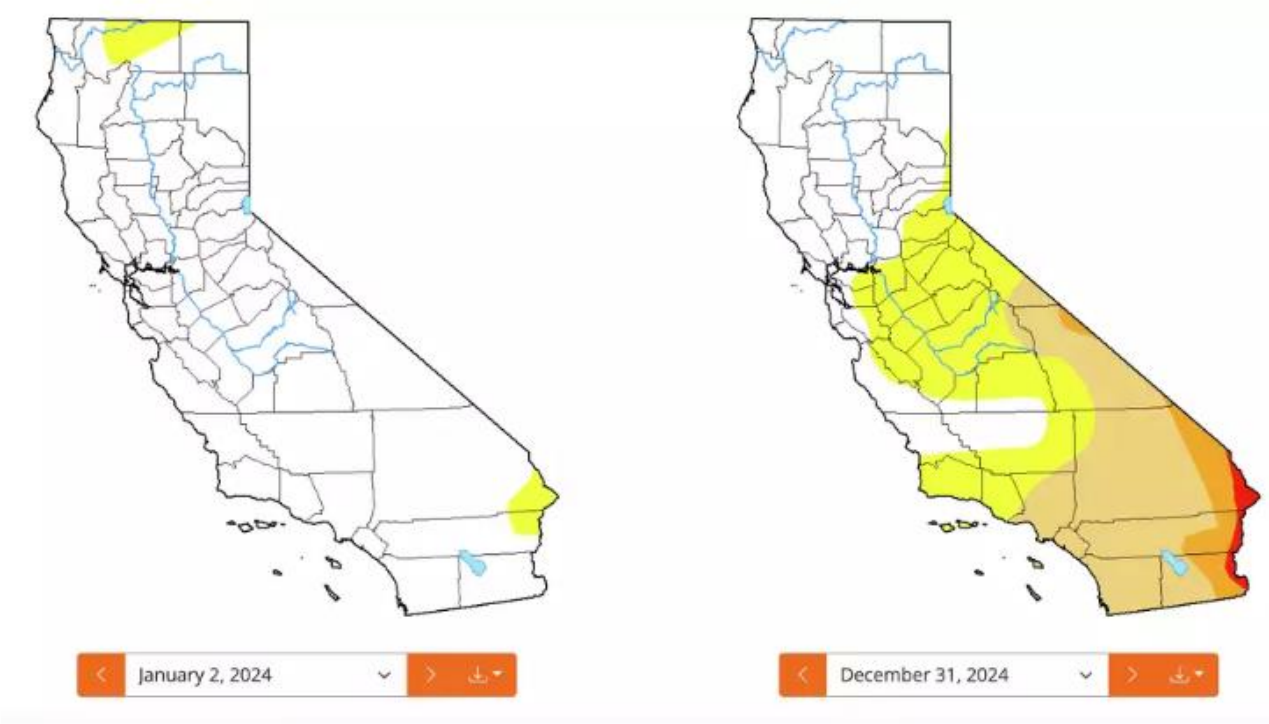
The map uses six classifications to describe the intensity and geography of drought conditions across the U.S., with “abnormally dry,” or D0, considered the lowest possible threshold of concern. It refers to land that is going into or coming out of drought, leading to possible impacts such as slower crop growth, increased fire risk and strain on water resources, with the potential to develop into a full-blown drought if conditions persist. “Moderate drought,” or D1, is a step up, potentially contributing to decreased water reservoir levels and damaged crops, while “extreme drought,” or D3, can lead to more widespread impacts, including the increased susceptibility to wildfires and losses of crops and pastures.



The latest map data shows how drought conditions are spreading across the state.
U.S. Drought Monitor

Short and long term impacts

Between Dec. 24 and Dec. 31, the state saw increases in nearly all drought categories, jumping 2.5% in abnormal dryness and 14.8% in moderate to extreme drought across the state. The map also shows a staggering difference in comparison to the start of 2024, when about 96% of California was under no drought, and abnormal dryness impacted just a fraction of Siskiyou County in far Northern California and San Bernardino and Riverside counties at the southern edge of the state. Just shy of 19 million people are living in drought-affected areas throughout California, according to the U.S. Drought Monitor.



A nearly one-year comparison of the California Drought Map, from Jan. 2, 2024 (left) to Dec. 31, 2024. U.S. Drought Monitor

California's reservoirs remain stocked from recent rains, with the state's largest, Shasta Lake and Lake Oroville, at 78% and 70%, respectively. Still, as SFGATE previously reported, recovery may be a challenge: New research from UC Merced shows that California is taking longer than ever to rebound from drought years, making dry cycles both more severe and longer-lasting than in generations past.

Dry weather is expected to persist in the Bay Area next week, with no chance of rain in the forecast and temperatures likely to warm up into the mid-to-upper 60s.

# # #

(This page was intentionally left blank)

After a warm, dry fall, recent storms provide boost to snowpack but return of dry conditions looms

Maven's Notebook | January 2, 2025 | Department of Water Resources

California Department of Water Resources staff members (from right) Andy Reising, Snow Surveys and Water Supply Forecasting Unit Manager, Manon von Kaenel, Water Resources Engineer, Jordan Thoennes, Water Resources Engineer, and Angelique Fabbiani-Leon, State Hydrometeorologist, conduct the first media snow survey of the 2025 season at Phillips Station in the Sierra Nevada. The survey is held approximately 90 miles east of Sacramento off Highway 50 in El Dorado County. Photo taken January 2, 2025. Nick Shockey / DWR

The Department of Water Resources (DWR) today conducted the first snow survey of the season at Phillips Station. The manual survey recorded 24 inches of snow depth and a snow water equivalent of 9 inches, which is 91 percent of average for this location. The snow water equivalent measures the amount of water contained in the snowpack and is a key component of DWR's water supply forecast. Statewide, the snowpack is 108 percent of average for this date.

Recent years in California have been marked by extremely hot and dry conditions broken up by periods of intense rain and snow. So far, this water year has been no different. A record-breaking hot and dry summer continued well into the fall, but a powerful atmospheric river in November broke several rainfall records in Northern California. A series of storms in late December provided another boost.

"While our snowpack looks good now, we have a long way until April when our water supply picture will be more complete," said DWR Director Karla Nemeth. "Extreme shifts between dry and wet conditions are continuing this winter and if the past several years are any indication, anything could happen between now and April and we need to be prepared."

DWR's electronic readings from 130 stations placed throughout the Sierra Nevada indicate that the statewide snowpack's snow water equivalent is 10.7 inches, or 108 percent of average for this date, compared to 28 percent on this date last year.

California has seen this pattern before. In both 2013 and 2022, the January snowpack was well above average thanks to December storm activity, only for dry conditions to take over the rest of the winter, quickly erasing early season snow totals and continuing existing drought conditions across the state.

"We are fortunate to have had several solid snow-producing atmospheric river systems so far this season," said DWR's Snow Surveys and Water Supply Forecasting Unit Manager Andy Reising. "The fall was extremely dry, so our healthy snow totals are thanks to a handful of big storm systems in November and late December. But to finish the year where we need to be, we will still need additional snow building at a regular pace throughout the winter."

Major reservoirs statewide are currently 121 percent of average thanks to two consecutive years of above average snowpack conditions, which occurred after the driest three-year period on record in California. DWR is preparing for these swings between extreme conditions by investing in climate resilience, including the use of Forecast Informed Reservoir Operations, floodplain and flood infrastructure improvements and groundwater recharge efforts that will ensure California is able to capture and use as much water during flood conditions as possible.

On average, the Sierra snowpack supplies about 30 percent of California's water needs. Its natural ability to store water is why the Sierra snowpack is often referred to as California's "frozen reservoir." Data from these snow surveys and forecasts produced by DWR's Snow Surveys and Water Supply Forecasting Unit are important factors in determining how DWR manages the state's water resources.

DWR conducts four media-oriented snow surveys at Phillips Station each winter near the first of each month, January through April and, if necessary, May. The next survey is tentatively scheduled for February 3.

# # #

As Southern California readies for drought, the Bay Area breaks rain records
Los Angeles and San Diego are historically dry
SFGate | December 27, 2024 | Farley Elliott,

Residents survey a flooded road as heavy rains continue in Windsor, Calif., Friday, Nov. 22, 2024. Noah Berger/AP

California's complex but fragile climate is being split in two this year. In Northern California, record-setting rainfall and massive ocean swells are wreaking havoc on the state's iconic piers and aging infrastructure, causing floods and, in a rare moment, a tornado alert. Just hours away down Interstate 5, Southern California is baking away, spiraling toward a deep drought with no immediate end in sight.

At the end of the year, the contrast between the state's two halves couldn't be more stark.

San Diego, the state's second-most-populous county (and fifth largest in the United States), has not seen meaningful rainfall in months. The area is hurtling toward one of its driest starts to what has historically been the region's rainy season, matching dryness levels not seen in more than 150 years.

Just up the coast, Los Angeles is in a similarly arid state. The metro area has not had an impactful rainstorm since the spring, and is expected to "finish tied for first place for the driest conclusion to the year," senior National Weather Service meteorologist Todd Hall told KTLA-TV

earlier this month. By contrast, between 1991 and 2020, Downtown LA averaged nearly 2.5 inches of precipitation for the month of December.

It's a sharp contrast to last February, when Southern California was deluged with up to 14 inches of rain in less than a week, leading to mudslides, flooding and coastal destruction. With a La Niña weather pattern on the horizon, drier conditions should persist across Southern California through the winter, fueled by strong Santa Ana winds that also increase the risk of wildfire.

The Franklin Fire in Malibu ripped quickly through thousands of mostly dry canyon acres, threatening celebrity homes and closing the Pacific Coast Highway earlier in December. An even larger November blaze in Ventura County, dubbed the Mountain Fire, burned well over 100 structures and spread to more than 20,000 acres before finally reaching containment.

It's not just the blustery coastal areas seeing worrisome weather patterns, either. About half of California's counties have regions that are now "abnormally dry," according to data from the University of Nebraska's U.S. Drought Monitor. That includes all of Los Angeles, San Diego and Orange counties. Far eastern sections of Riverside, San Bernardino and Imperial counties have even reached "extreme drought" levels.

Shifts in state population are bringing California's boom-bust weather cycles into stark relief. Thousands of homebuyers continue to flee the coastline in search of affordability, pushing people further into hotter, drier areas. In nearby Nevada, Clark County — home to the sprawling Las Vegas metro area and its accelerated real estate market — reached "extreme" drought levels in early December. The area has not had more than one-tenth of an inch of rain for well over 160 days, and is inching toward breaking its 240-day no-rain streak, set back in 2020.

Worst of all, the enduring effects of climate change are making drought recovery even tougher. New research out of UC Merced shows that California is taking longer than ever to rebound from drought years, making dry cycles both more severe and longer-lasting than in generations past.

For now, California's reservoirs are well-stocked from years of rain and ongoing conservation efforts. The state's most important reservoirs (Shasta Lake and Lake Oroville, in particular) have reached their capacity levels, and the water level at Nevada's Lake Mead has risen 16 feet in the past two years. The Sierra snowpack is also robust — again, thanks to those Northern California storms — but there's no guarantee of year-over-year snow success. If Southern California is any indication, dry times could very much still be looming.

# # #

DELTA SCIENCE PLAN update: Crafting solutions for the Delta's 'Grand Challenges'
Maven | January 7, 2025

Aerial view looking south east at a section of the San Joaquin River and right St Francis Yacht Club located on Tinsley Island part of the Sacramento-San Joaquin River Delta in San Joaquin County, California. Photo taken May 11, 2023. California Department of Water Resources

The Delta Science Program is currently working on the third iteration of the Delta Science Plan. Recommended within the Delta Plan, the Delta Science Plan is developed collaboratively with the Delta science community. Its purpose is to provide a clear vision, guiding principles, and effective approaches for coordinating Delta science efforts, as well as communicating the outcomes of scientific activities and their management implications to decision-makers.

For the 2025 Delta Science Plan, DSP intends to take a more strategic and forward-looking approach by centering the Plan around specific "grand challenges." These challenges represent major scientific problems that, through coordination and collaboration, can advance shared goals and accelerate scientific understanding and informed decision-making. This focused direction aims to make the 2025 Delta Science Plan more proactive and impactful. By addressing key issues through collective effort, the updated Plan seeks to enhance Delta science coordination and catalyze scientific progress in the region.

A presentation at the November meeting of the Delta Stewardship Council summarized the progress to date and the next steps, which include a two-day hybrid workshop scheduled for February 20 and 21. Tricia Lee, Senior Environmental Scientist with the Delta Science Program, gave the update.

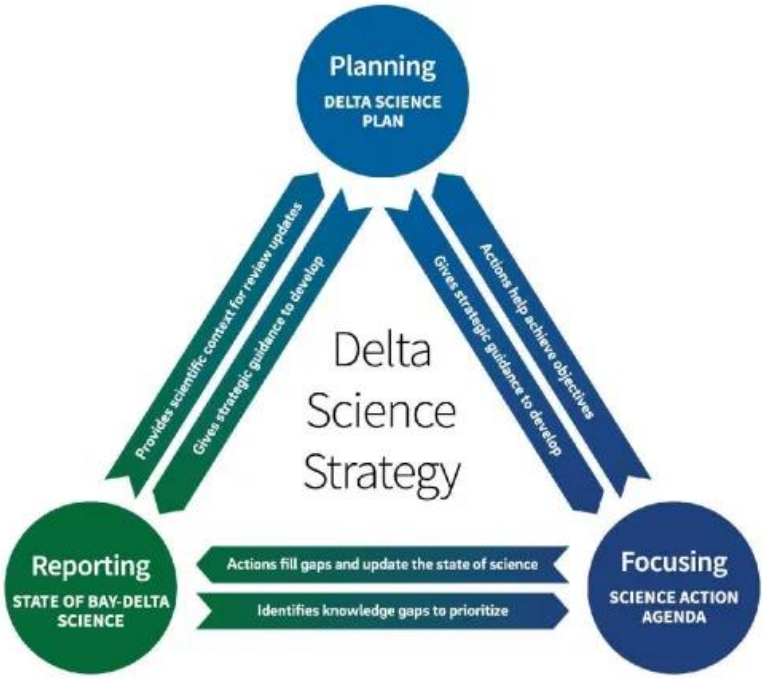
Delta Science Strategy

The Delta Science Plan is part of an overall Delta Science Strategy consisting of three key components:

- Delta Science Plan: The Plan provides a roadmap for doing science in the Delta. It is intended to strengthen, organize, and communicate science to provide relevant, credible, and legitimate decision-support for policy and management actions. The Plan is developed through an open, transparent, and inclusive process informed by and for the greater Delta science community.

The 2019 Delta Science Plan included 26 methods to address six collaboratively developed objectives. Click here for the 2019 Delta Science Plan.

- Science Action Agenda: This document prioritizes and aligns science actions to inform management decisions. It identifies major gaps in knowledge, promotes collaborative science, and builds science infrastructure. It is updated roughly every five years and is utilized to guide funding calls by the Delta Science Program, other agencies, and other funding entities. View the 2022-2026 Science Action Agenda.



- State of Bay-Delta Science: This collection of papers represents a comprehensive synthesis of the current scientific understanding of the Delta. The papers highlight significant progress made on key research questions over the past decade and identify areas where knowledge gaps persist. The 2022 edition features seven articles exploring the theme of "ecosystem services and disservices of Bay-Delta primary producers: how plants and algae affect ecosystems and respond to management of the estuary and its watershed." Explore the 2022 version at the State of Bay Delta Science website.

The 2025 Delta Science Plan update

The 2019 Delta Science Plan emphasized shared mechanisms to inform policy and management, methods to modernize, integrate, and build the Delta science infrastructure to support effective decision-making through science-based adaptive management and decision support tools, and methods to collectively support the Delta Science Plan implementation.

"We've really seen that the Delta Science Plan can be a mechanism to drive innovative changes in the way we do science," said Tricia Lee. "Some examples of the success of the 2019 Delta Science Plan include the development of the Social Science Task Force in 2020 and the Delta Residents Survey in 2023. We also saw the first annual cross-cut budget, which was something that the 2019 Delta Science Plan called for, as well as the Delta Science Tracker."

During the review of the 2019 Delta Science Plan, the Delta Independent Science Board memo asked for the science plan to be bolder, more flexible, and more strategic. "So we really took that to heart as we began to develop the 2025 Delta Science Plan," said Ms. Lee. "The approach of making the Delta Science Plan oriented around grand challenges really helps us meet those asks by the Delta Independent Science Board to be bolder and more strategic."

The Delta Science Program proposes that the next Delta Science Plan not only identify the necessary tools, resources, and new approaches to address grand challenges in Delta science but also focus on making the 2025 update more effective, relevant, and responsive to emerging challenges, with the ultimate goal of delivering the best possible science for decision-making and advancing the State's coequal goals for the Delta.

Defining the Grand Challenges

To define the grand challenges, they reviewed Delta-specific visionary literature that addressed larger, overarching issues and were published since 2007 when the Delta Vision Blue Ribbon Task Force laid the foundation for the Delta Reform Act. The review identified 125 candidates for Grand Challenges.

The National Research Council defines a grand challenge as one that is a major scientific task that is compelling for both intellectual and practical reasons, offers potential for major breakthroughs based on recent developments in science and technology, and is feasible given current capabilities and assuming a significant infusion of resources.

Using that criteria, they whittled the 125 candidates down to 17 remaining challenges, which were then distilled into the final four grand challenges:

Grand Challenge #1 – Scientists and managers must anticipate a world in which environmental conditions and regulations may be fundamentally different from those faced today.

Grand Challenge #2 – Environmental change is outpacing the traditional pace of science.

Grand Challenge #3 – Flows of scientific information remain decentralized and poorly connected to communities and decision-makers.

Grand Challenge #4 – Other ways of knowing, especially Traditional Knowledge, remain siloed from decision-making.

Delta Science Program staff wanted to ensure that the Delta science community felt that the grand challenges identified adequately reflected the grand challenges to their work. So, the staff has been doing a lot of outreach over the past year, including targeted outreach with the Delta Independent Science Board and circulating an essay on the grand challenges for comment over the summer.

The final Grand Challenges essay has been released, and the Delta Science Program is moving forward with the Grand Challenges as the framework for the next Delta Science Plan.

Next steps

Development of the update of the Delta Science Plan will continue into 2025 with the Delta Science Program hosting a hybrid workshop on February 20-21, 2025. The goal of the workshop is to engage with the Delta science community to develop and identify strategies and tools to address the grand challenges and to determine what can be done in a five-year timeline to make progress in addressing the grand challenges.

The draft Delta Science Plan is expected to be released for public input and a presentation to the Council in Fall 2025.

# # #

(This page was intentionally left blank)

More water for urban areas, some farms: Biden, Newsom officials announce long-awaited new water delivery rules

Imperial Valley Press | December 26, 2024 | Alastair Bland, CalMatters

The California Aqueduct in Palmdale on Aug. 15, 2024. The aqueduct is part of the massive State Water Project, which delivers water from Northern California rivers south. TED SOQUI PHOTO/CALMATTERS

State and federal water officials announced today their long-awaited new rules for operating two massive water delivery systems that serve 30 million Californians and much of the state's farmland.

The rules will oversee operations of the State Water Project and the federal Central Valley Project, which carry water from Northern California rivers south to San Joaquin Valley farmers, Los Angeles area residents and many other water users in the southern half of the state.

Deliveries will increase for major urban water suppliers and many farms, while they'll be cut for some farmers. Schedules for releasing water from Lake Shasta, the state's largest reservoir, will be revised.

Chuck Bonham, director of the California Department of Fish and Wildlife, said the new operating plan represents the best path forward for the competing interests of cities, farms and fish. "It's good for both people and the environment," he said. "It's the expression of what people want from us."

The regulations, which take effect immediately, replace a set last modified in 2019 through a contentious revision by the first Trump administration, which state officials protested because it was expected to harm salmon and other Delta fish.

But environmental groups say the rules from the Biden and Newsom administrations are even worse than the Trump policy in terms of protecting the state's iconic Chinook salmon, endangered Delta smelt and other fish.

A federal environmental review last month concluded that some salmon, which already are in dire shape, would be harmed by the new operating plan, with numbers of young salmon expected to drop.

"I'm concerned that the alternative adopted today will adversely harm fish that are already in danger of extinction," said Ashley Overhouse, water policy advisor at Defenders of Wildlife.

Many farm groups and urban water districts applauded the new path forward, commending it as the best of several alternatives analyzed by state and federal officials for maintaining water supplies while protecting the environment.

For a consortium of water suppliers representing 27 million people in much of California, stretching from the Bay Area to San Diego, and 750,000 acres of farmland, the new plan is particularly beneficial. The rules will slightly increase their average annual deliveries of Delta water and, in drought years, cause no significant change.

That includes the giant Metropolitan Water District, which provides much of the water used by 19 million Southern Californians in six counties. Interim General Manager Deven Upadhyay called the rules "an important milestone" after years of discussions.

But for some San Joaquin Valley farmers, water deliveries could drop by almost 20% in dry years, with slighter cuts in wetter years. Still, they have voiced their support for what they consider a plan that is overall protective of water supply.

The new plan, however, comes as a disappointment for the Westlands Water District, the nation's largest agricultural water supplier, which provides water for crops in Fresno and Kings counties. Growers there will lose some of their water, which district officials said has a disproportionate impact on their region.

"This inequity alone provides ample justification for" rejecting the new rules, the Westlands district wrote in a public comment last month. "It overlooks broader economic ripple effects, particularly on businesses dependent on agricultural workers."

Thad Bettner, executive director of the Sacramento River Settlement Contractors — a major group of rice, nut and row crop farmers — supports the new rules because, he said, they will

help address critical threats to Chinook salmon, which could ultimately help not just the fish but farmers, too.

“Water supplies aren’t going to get better until fish do better,” he said.

The federal and state agencies rejected another alternative, drafted with environmental groups, that would have sharply cut water exports. Average river flows through the Delta and into the ocean would have increased, improving river conditions and increasing fish populations, according to modeling by the Bureau of Reclamation.

No one knows what President-elect Donald Trump will do about the Delta rules when he enters the White House, but he has complained frequently about California “wasting water” by sending it into rivers and the ocean for fish.

In September, while campaigning in Southern California, Trump said he would turn on a giant “faucet” and promised Californians “more water than you ever saw and the smelt is not making it anyway…All those fields that are right now barren, the farmers would have all the water they needed.”

The two massive Central Valley water systems — operated by the California Department of Water Resources and the U.S. Bureau of Reclamation — have long formed the nexus of disagreements between water suppliers and environmentalists, who fault them for devastating the region’s ecosystem.

According to an analysis released by the Bureau of Reclamation in November, the new rules will harm several protected species of fish. More cold water will be kept in Lake Shasta and released in the summer and fall as salmon spawn, resulting in more fish being born. But it fails the fish in subsequent life stages, ultimately leading to fewer juveniles, according to the federal agency’s report.

In critically dry years, winter-run Chinook could produce 23% fewer juveniles than baseline conditions — which are already tipping the fish toward extinction. Even in wet years, the modeling shows, winter-run juvenile salmon numbers will decline.

But while some fish would be harmed, two federal agencies responsible for protecting the species said the new operating rules are “not likely to jeopardize (their) continued existence.” If the agencies had found “jeopardy” of extinction, it would have triggered a protracted and complex federal process under the Endangered Species Act.

“The proposed action has a suite of protective measures … that we felt are going to help set the foundation for us to continue to build on,” said Jen Quan, the West Coast regional administrator for the National Marine Fisheries Service. She said modified timing of releases from Lake Shasta will improve cold-water spawning conditions for the fish and support them during migration, and steps taken in the Delta will reduce fish killed near pumping stations.

She added that introducing hatchery winter-run Chinook to tributaries upstream of Shasta Dam also will help the species in the future.

“We felt like we could at least not see the extinction of these species and help really move them forward,” Qual said.

Resiliency of the federal Central Valley Project, “with its importance to the agricultural industry and drinking water deliveries across California, is critical to the state’s water supply future,” said Mike Brain, the Biden administration’s principal deputy assistant secretary for water and science. “The revised operating plan will improve regulatory certainty for water users and provide a more stable water supply for communities, farms and fish.”

But the new rules do not end the decades-long wars over Delta management or determine its entire fate. While they specifically cover operation of the two water delivery systems, they are just one part of the state’s broader Bay-Delta Water Quality Control Plan, an overarching state regulation now undergoing a separate, controversial update process.

Sometime in the next year, the state water board will vote on a new water-quality plan that would either impose rules that dramatically increase minimum flow requirements through the Delta or adopt a set of so-called voluntary agreements that commit water users to restoring stream habitat for salmon and other fish.

# # #

San Francisco Bay Sea Level Rise Study Included in Water Resources Development Act of 2024 (WRDA)
California Natural Resources Agency | January 6, 2025

For the first time, the U.S. Army Corps of Engineers will study impacts of sea level rise on the entire region with focus on economically disadvantaged communities, vulnerable infrastructure, and nature-based strategies.

Oakland, CA – Today, the State Coastal Conservancy, Save The Bay, the Bay Conservation and Development Commission, the Bay Area Council, the San Francisco Bay Joint Venture, the Bay Planning Coalition, the Bay Area Regional Collaborative (BARC), San Mateo County Flood and Sea Level Rise Resiliency District (also known as OneShoreline), and the California Natural Resources Agency announce that the Thomas R. Carper Water Resources Development Act of 2024 (WRDA), signed January 4 by President Biden, now includes a section instructing the U.S. Army Corps of Engineers (USACE) to conduct a study of measures to adapt to rising sea levels in the San Francisco Bay Area.

The study, which is anticipated to begin in 2026, assuming funding, builds on and expands USACE's existing authority to address the impacts and adaptation to sea level rise and climate change in the 9-county Bay Area's ocean and bay shorelines. In addition to investigating measures to adapt to rising sea levels, the USACE study will consider the needs of economically disadvantaged communities and the existing vulnerable infrastructure of these areas, and the use of natural features and beneficial use of dredged sediment in the solutions. WRDA also directs USACE to look at the effects of proposed flood or shoreline protection, coastal storm risk reduction, environmental infrastructure and other measures on the local economy, recreation, aquatic ecosystem restoration, public infrastructure protection, and stormwater runoff capacity, as well as the erosion of beaches and coasts.

"The San Francisco Bay Area is no stranger to the harmful effects of climate change, including extreme heat, prolonged droughts, and rising sea level," said Rep. Zoe Lofgren (CA-18). "Thanks to the Thomas R. Carper Water Resources Development Act of 2024 (WRDA), which I supported and voted in favor of, the U.S. Army Corps of Engineers will be able to partner with local agencies to study how to mitigate sea level rise and curb its effects on nearby communities. I remain committed to advancing efforts that improve resiliency, expand our water supply, and protect our environment."

"Bay Area leaders have worked hard to understand the impacts of sea level rise to this region," said California Natural Resources Secretary Wade Crowfoot. "We know that climate change has worsened flooding and storm surge risks, with real threats to local communities. Now, thanks to this federal action, experts at the Army Corps of Engineering will help us better understand these risks and how we can best prepare and protect local residents. This is a big step forward that will help the Bay Area continue to thrive into the future."

Regional funding through Measure AA, State of California funding through the 2024 Climate Bond, and stakeholder contributions will leverage federal funding through USACE for the regional study and future projects.

The San Francisco Bay Area stands to be one of the hardest-hit regions in the nation from rising sea level, with over 8 million residents, 9 counties, 101 cities, and vital infrastructure, communities, ecosystems, and businesses — all clustered around a single bay. The impacts to communities along San Francisco's 400-mile shoreline are expected to land disproportionately on socially vulnerable populations, which are the most at risk and least able to recover from flooding. With the projected sea level rise under state guidance of +0.8 feet by 2050, the Bay Area must prepare now to effectively manage the risks to human health and safety and the estimated hundreds of billions of dollars in losses to property and infrastructure. Specific assets at near-term risk include airports, ports, wastewater treatment plants, major highways and roadways, public transit and thousands of homes in low and moderate-income communities.

"The inclusion of this language in WRDA really lets the Army Corps think on the landscape scale about sea level rise resilience for the region and opens the doors for flood and conservation agencies working in the Bay to partner with USACE across a number of projects," said Amy Hutzel, Executive Officer of the State Coastal Conservancy. "The Corps brings the expertise and resources needed to tackle some of the region's largest and most challenging restoration and flood protection projects. We see them as an essential long-term partner to meeting our resilience goals and I'm excited to see the project opportunities this study will lead to."

"The Water Resources Development Act recently signed into law by President Biden allows the U.S. Army Corps of Engineers to conduct a comprehensive sea level rise analysis for the entire Bay Area shoreline, a critical step to defending the region's residents and innovation economy for the next century and beyond," said Jim Wunderman, President and Chief Executive Officer of the Bay Area Council. "Special thanks to Congressman Khanna, Congressman Garamendi, Congressman Huffman, Congresswoman Lofgren, and Congressman Mullin for delivering this win for the entire region."

"San Francisco Bay is home to some of the most vibrant and vital wildlife habitat on the West Coast, all within a dense urban population," said Rebecca Schwartz Lesberg, Chair of the San Francisco Bay Joint Venture's Management Board. "This study will help us better understand how habitat restoration and nature-based solutions can increase resilience to sea level rise for people and nature."

"Sea level rise flooding is a regional challenge because floodwaters don't stop at city borders," said David Lewis, Executive Director of Save The Bay. "The Army Corps' new study will identify regional opportunities to invest in impactful nature-based resilience projects like additional tidal marsh restoration. Building these projects now is critical to ensuring a healthy Bay shoreline that protects our communities from rising tides."

“I am ecstatic that the Congress and President Biden are supporting a federal study on the impacts of rising sea levels on the San Francisco Bay,” said Larry Goldzband, Executive Director of the San Francisco Bay Conservation and Development Commission. “Protecting our vulnerable communities and natural habitat in the Bay from rising sea levels is going to cost an estimated $110 billion by 2050. We cannot achieve that without federal partnership.”

“This study will build upon existing science, prioritizing the Bay’s economically disadvantaged and climate-vulnerable communities to identify where the impacts of sea level rise will hit the hardest. We are excited to collaborate with the Army Corps to protect these areas while maximizing the use of nature-based solutions to support the Bay’s wildlife habitats,” said Allison Brooks, Executive Director, Bay Area Regional Collaborative (BARC).

“The task of planning and building long-term climate resilience along the Bay shoreline will largely fall to local governments, and having the federal government as a partner through that process will be extremely helpful,” said Len Materman, Chief Executive Officer of the San Mateo County Flood and Sea Level Rise Resiliency District. “We look forward to working with USACE and the other eight counties along the Bay to align protection to the inter-related threats of sea level rise and extreme storms.”

# # #