BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING

April 5, 2024

Correspondence and media coverage of interest between March 21, 2024 and April 4, 2024

Correspondence

From:	Scott Wagner, California Water Service Co. Director of Water Resources Mary Rogren, Coastside County Water District General Manager Azalea Mitch, City of Menlo Park Public Works Director Kathryn Wuelfing, Mid-Peninsula Water District General Manager Sam Bautista, City of Millbrae Director of Engineering & Public Works Dean Batchelor, City of Palo Alto Director of Utilities Phil Witt, Purissima Hills Water District General Manager Julia Nussbaum, Stanford University Assoc. Director Watter Planning & Stewardship Patricia Mairena, Westborough Water District General Manager
To:	Erin Corvinova, SFPUC Financial Planning Director Nancy Hom, Chief Financial Officer Kristen Avenis, SFPUC Rates Analyst Alison Kastama, SFPUC BAWSCA Liaison
Dates:	April 2, 2024 - March 26, 2024
Subject:	SFPUC FY 2024-25 Wholesale Water Fixed Charge Study

From:	Nicole Sandkulla, BAWSCA CEO/General Manager
To:	The Hon. Tim Paulson, SFPUC President and Members of the Commission
Date:	April 1, 2024
Subject:	Comments on the April 9, 2024, Proposed Revised Water System Improvement Program (WSIP)

From:	Info@losvaquerosjpa.com
To:	Stakeholders
Date:	March 30, 2024
Subject:	Los Vaqueros Reservoir Joint Powers Authority Update

From:	Peter Drekmeier, Tuolumne River Trust Policy Director
To:	SFPUC Commissioners and BAWSCA Board Members
Date:	March 22, 2024
Subject:	Collaboration with Irrigation Districts

From:	Nicole Sandkulla, BAWSCA CEO/General Manager
To:	Nancy Hom, SFPUC Chief Financial Officer and Assistant General Manager
Date:	March 21, 2024
Subject:	BAWSCA Concerns with the SFPUC Wholesale Water Fixed Charge Study

From:	Nicole Sandkulla, BAWSCA CEO/General Manager
To:	Angela Cheung, SFPUC Division Manager, Water Supply & Treatment
Date:	March 20, 2024
Subject:	Comments on SFPUC's Water Meter Maintenance and Testing Procedures Manual

Correspondence, cont'd.

From: Judith Casino
Gita Dev
Bethi Carver Gibb
Kristel Wickham
Yanely Zavala
Kai Martin
To: BAWSCA Board Members
Date: March 21 – March 30, 2024
Subject: Restore Remote Participation at BAWSCA

Press Release

From: California Department of Water Resources
Date: April 2, 2024
Subject: State Releases California Water Plan Update 2023: A Roadmap to Water Management and Infrastructure for a Water Resilient Future

Water Supply Conditions:

Date: April 2, 2024
Source: San Francisco Chronicle
Article: What California's 'unusually average' snowpack means for water resources

Date: April 1, 2024
Source: LA Times
Article: Tracking California's water supplies

Date: April 1, 2024
Source: Union of Concerned Scientists
Article: Four Reasons You Should Care about California Snow

Date: March 30, 2024
Source: Mercury News
Article: Sierra Nevada snowpack 'unusually normal' and reservoirs are brimming as winter Season winds down

Water Policy:

Date: April 4, 2024
Source: Daily Journal
Article: Newsom's water plan makes waves

Date: April 2, 2024
Source: Mercury News
Article: Gov. Newsom announces updated water plan amid above-average Sierra snowpack

Water Management:

Date: April 3, 2024
Source: Ag Alert News
Article: Despite wet year, fish protections limit allocations

CALIFORNIA WATER SERVICE

Water Resource Sustainability Department 1720 North First Street
San Jose, CA 95112

April 2, 2024

VIA ELECTRONIC MAIL

Ms. Erin Corvinova
Financial Planning Director
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102

RE: SFPUC FY 2024-2025 Wholesale Water Fixed Charge Study – Cal Water Comments

Dear Ms. Corvinova:

California Water Service (Cal Water) has reviewed the San Francisco Public Utilities Commission (SFPUC) Wholesale Water Fixed Charge Study dated February 2, 2024. We appreciate the efforts and details of the Wholesale Water Fixed Charge Study and understand the need to incorporate new meter size charges. Given the direct impact to Cal Water, and potential 29% fixed charge increases in two of Cal Water's districts, the below comments are provided. It is our request that the rate structure remain consistent with the existing Water Supply Agreement (WSA).

- The new water fixed charge puts undue charges on specific Retailers compared to all Retailers in disagreement with the principle of proportional annual use as described in the WSA (Section 5.02.E and others). The intent of the WSA is that all of the Retailers would collectively make payment to the SFPUC so that the full revenue requirement is collected, rather than charging certain Retailers more based on specific meter charges. Using this proposed fixed charge change at 1.5% of the annual Wholesale Revenue Requirement will likely cause division in the future among the Retailers over individual charges not shared by the whole.

- As a result of the new fixed rate changes, meter costs are shifted from larger to smaller meters. This change will directly affect Cal Water leading to 29% increases in Bear Gulch and South San Francisco. Within the 60 days, there is not enough time to properly analyze the direct customer impact of these changes, nor is there any real ability to change the existing meter size, as the meters are based on existing infrastructure and current system customer needs.

- Though the other agencies referenced in the Wholesale Water Fixed Charge Study provide valid comparisons for rate structures, none of the Agencies included have a Balancing Account structure similar to what is included in the WSA with the Retailers. It is requested that other Agencies with Balancing Accounts be included, or that additional discussion be given as to how this difference is reconciled in the new rate structure. Additionally it is recommended that new meter costs be based on the cost of the meter, not on the meter capacity.

- At the March 7, 2024 BAWSCA meeting, it was shared that the fixed charge amount will likely change on a yearly basis. The intent of the Balancing Account in the current WSA is to capture unforeseen costs and to provide that 100% of the revenue requirement is collected from the Wholesale Customers in a way that makes the SFPUC whole. Increasing the current fee component with the likelihood of continuous yearly changes to that component does not allow for stable rate forecasting and will likely result in more customer rate fluctuation. There is also concern that this change may introduce additional fee structure changes in years to come that will not come with a full rate impact study.

- It was also shared at the BAWSCA meeting that the SFPUC is not aware of how the original fee structure was set, nor have the records proving why it was set that way. This lack of knowledge, though transparent, is very concerning, and leads to concerns as to the accuracy of the current rates that the Retailers and all of their customers are currently paying. Regardless of past knowledge, or methodologies, if a new structure is required, a full rate structure study should be conducted with time to review by the Wholesale Customers to set a new direction going forward.

At the March 7, 2024 BAWSCA meeting, the SFPUC requested not only comments to this Wholesale Water Fixed Charge Study, but also proposals for the new rate structure. Cal Water proposes:

- That the existing rate structure be maintained consistent with WSA principle of proportional annual use, and that only the costs of the missing meters be added to the meter charge table.

- If the SFPUC feels that the existing rate structure needs to be adjusted, then it is recommended that a full rate impact study be performed that works collaboratively with the Wholesale Customers, and that provides adequate time for review.

Thank you again for considering these comments regarding the Wholesale Water Fixed Charge Study.

Pending how these comments are addressed, Cal Water will also consider bringing these comments to the San Francisco Public Utilities Commission prior to being considered for approval after the 60 day comment period.

Sincerely,

Scott Wagner
Director of Water Resources

Cc: Nancy Hom, SFPUC, Chief Financial Officer and Asst. General Manager, Business Services
Alison Kastama, SFPUC, BAWSCA Liaison
Ross Moilan, California Water Service, Bayshore District Manager
Dawn Smithson, California Water Service, Bear Gulch District Manager
Ken Jenkins, California Water Service, Chief Water Resource Sustainability Officer
Nicole Sandkulla, BAWSCA, CEO / General Manager

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March 29, 2024

Ms. Erin Corvinova
Financial Planning Director
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102

Re: SFPUC Wholesale Water Fixed Charge Study

Dear Ms. Corvinova,

Coastside County Water District is in receipt of the Wholesale Water Fixed Charge Study dated February 2, 2024 and prepared by the SFPUC Financial Planning Team. We are appreciative of the work conducted by your team to develop this complex and comprehensive study. Also thank you for your presentation at the BAWSCA Water Manager's meeting held on March 7, 2024.

As a BAWSCA agency, we are supportive of BAWSCA's request to suspend implementation of the study until the BAWSCA team can conduct further analysis on the implications to the existing WSA. Given the complexity of the study and the unique nature of the terms of the existing WSA, we request that there be collaborative engagement between SFPUC and BAWSCA and the Wholesale Customers in the development of changes to the rate structure.

Thank you for your consideration.

Best regards,

Mary Rogren
General Manager
Coastside County Water District

Cc:

Alison Kastama, SFPUC

Nicole Sandkulla, BAWSCA

Christina Tang, BAWSCA

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CITY OF MENLO PARK

March 26, 2024

San Francisco Public Utilities Commission
Attn: Kristin Avenis & Erin Corvinova, Financial Planning Team
Via email: kavenis@sfwater.org, ecorvinova@sfwater.org
525 Golden Gate Avenue (at Polk St.)
San Francisco, CA 94102

RE: SFPUC Wholesale Water Fixed Charge Study, Comments

Dear SFPUC Financial Planning Team,

We have reviewed the San Francisco Public Utilities Commission (SFPUC) Wholesale Water Fixed Charge Study provided to us in a February 2 email. Table 8 shows the proposed rate update's annual impact on each Wholesale Customer, and Menlo Park would see a 21.5 percent increase in fixed charges. We understand that in accordance with Water Supply Agreement Section (WSA) 6.04B, we must provide comments/questions by April 2 so that SFPUC may consider them in the final proposed rates.

We feel that it is important for SFPUC to work collaboratively with Bay Area Water Supply and Conservation Agency (BAWSCA) and the Wholesale Customers to revise fixed rates within the WSA. This is especially true because the proposed rate changes impact Wholesale Customers cost allocations *amongst each other* and do not in any way impact revenue collected by the SFPUC. Specifically, the new methodology deviates from the principle of Wholesale Customers paying their individual share of expenses on the basis of Proportional Annual Use per WSA 5.02E.

1. **The new recommended rate schedule shifts costs**. We understand the need to address the two meters that do not have assigned fixed rates, however, SFPUC's proposal also changes the existing fixed rates among the Wholesale Customers by shifting costs from larger to smaller meters and introducing a new fixed rate called Customer Charge.
2. **The complex methodology used by SFPUC requires more time to review.** SFPUC's proposed methodology for fixed monthly charges is complex and we need more time to review it thoroughly. The 60 days given does not provide sufficient time. It would be helpful if SFPUC could share the complete rate model to BAWSCA and Wholesale Customers.
3. **The other agencies surveyed in the Study do not have a Balancing Account**. Through the Balancing Account, SFPUC always collects 100% of the annual

calculated Wholesale Revenue Requirement from Wholesale Customers. Even if fixed rates were zero, SFPUC would receive full cost recovery through annually adjusted volumetric rates.

4. **The existing fixed monthly charges are already a variation from the principle of Proportional Annual Use**. SFPUC's proposal changes the basis on which SFPUC allocates costs to individual Wholesale Customers.
5. **SFPUC's proposal signals future structural rate changes.** The Study states that SFPUC is considering proposing further structural changes to the wholesale water rate design, potentially establishing a precedent for changing the rate structure in the future.
6. **Hire financial firm to analyze rates for Wholesale Customers.** We understand that SFPUC hires a third-party financial firm to analyze rates for SFPUC's retail customers. We would like to see the same for analyzing rates for the Wholesale Customers.
7. **Request to slow the process down**. We request SFPUC postpone making any changes to the current fixed monthly charges, and only develop meter charges for the two meter sizes needed.
8. **Request collaborative engagement between BAWSCA, Wholesale Customers, and SFPUC.** Working together will result in the development of appropriate fixed charges that are satisfactory to the Wholesale Customers and fully meets the intent of the WSA.

Sincerely,

Azalea Mitch

Azalea Mitch
Public Works Director

cc: Alison Kastama, SFPUC BAWSCA Liaison
Nicole Sandkulla, BAWSCA CEO
Nicole Nagaya, Deputy City Manager
Pam Lowe, Senior Civil Engineer

MID-PENINSULA WATER DISTRICT
1075 Old County Road, Suite A, Belmont, CA 94002
tel: 650.591.8941 fax: 650.591.4998 MidPeninsulaWater.org

March 18, 2024

Alison Kastama
Bay Area Water Supply and Conservation Agency (BAWSCA)
and Wholesale Customer Liaison
San Francisco Public Utilities Commission
AAKastama@sfwater.org

Dear Ms. Kastama,

The Mid-Peninsula Water District (MPWD) is providing this comment letter in regard to the *San Francisco Public Utilities Commission Wholesale Water Fixed Charge Study FY 2024-2025,* dated February 2, 2024 (Study).

MPWD shares the view of the Bay Area Water Supply and Conservation Agency (BAWSCA) and the other Wholesale Customers, that it is inappropriate for the San Francisco Public Utilities Commission (SFPUC) to change fixed rates within the Water Supply Agreement (WSA) without working collaboratively with its Wholesale Customers and BAWSCA.

Based on the March 7, 2024 presentation by SFPUC staff, we understand that the proposed rate changes impact Wholesale Customers cost allocation amongst ourselves only, and deviates from the WSA principle of Wholesale Customers paying their individual share of expenses on the basis of Proportional Annual Use. Further, the proposed changes do not impact the revenue collected by the SFPUC, and thus do not seem necessary from SFPUC's perspective. MPWD's key concerns are listed below:

- **The new recommended rate schedule shifts costs.** MPWD understands that there is an immediate need to address the meters that are not currently in place, but the proposal also changes the existing rates among the Wholesale Customers, by shifting costs from larger to smaller meters because of a newly introduced flat rate called Customer Charge.
- **The complex methodology used by the SFPUC requires more time to review.** The proposed methodology for fixed monthly charges is complex and requires more than 60 days to complete a thorough review. The SFPUC did not meet with the Wholesale Customers to discuss the Study until well into the review period. The Study does not share the SFPUC's complete rate model.
- **The other agencies surveyed in the Study do not have a balancing account mechanism.** Through the Balancing Account, the SFPUC always collects 100% of the calculated Wholesale Revenue Requirement from BAWSCA member agencies. Even if

the fixed cost portion were zero, the SFPUC would still be assured a full cost recovery through annually adjusted volumetric rates.

- **The existing fixed monthly charges are already a variation from the principle of Proportional Annual Use.** This proposal further changes the basis on which SFPUC allocates costs to individual wholesale customers.
- **The Study signals future structural rate changes.** The Study also states that the SFPUC is considering proposing further structural changes to the wholesale water rate design, potentially establishing a precedent for future rate structure changes.

Given the issues highlighted above, MPWD requests that SFPUC slow this process down, and postpone making any changes to the current fixed monthly charges. We further request SFPUC fully engage the Wholesale Customers and BAWSCA in this process, to ensure that that the result is collaborative, appropriate, and satisfactory to Wholesale Customers, and fully consistent with the intent of the WSA.

Finally, we understand that there is an immediate need to identify charges for new meter types that will be soon used in the system. We support any forthcoming recommendations from BAWSCA on how to identify charges for these limited new meter types/sizes, as a stopgap while the larger issues with the Study identified above are thoroughly evaluated.

Sincerely,

Kathryn Wuelfing
General Manager

CC: Nicole Sandkulla (BAWSCA)
Julie Sherman (Hanson Bridgett)
Rene Ramirez (MPWD)

ANDERS FUNG
Mayor

MAURICE GOODMAN
Vice Mayor

ANGELINA CAHALAN
Councilmember

GINA PAPAN
Councilmember

ANN SCHNEIDER
Councilmember

City of Millbrae

621 Magnolia Avenue, Millbrae, CA 94030

March 20, 2024

San Francisco Public Utilities Commission, 4th Floor
525 Golden Gate Avenue
San Francisco, CA 94012
Via Email: ecorvinova@sfwater.org

Re: SFPUC FY 2024-25 Wholesale Water Fixed Charge Study

Dear Ms. Corvinova,

The City of Millbrae is writing to express concerns regarding the proposed increase in fixed rates as specified in the San Francisco Public Utilities Commission (SFPUC) FY 2024-25 Wholesale Water Fixed Charge Study. As a Wholesale Customer in San Mateo County that greatly values service from the SFPUC, we believe it is essential to address the potential implications of such a proposition.

In the City of Millbrae's view, it is inappropriate for the SFPUC to change the fixed rates within the Water Supply Agreement (WSA) without working collaboratively with its Wholesale Customers and BAWSCA. This is especially true because the proposed rate changes impact Wholesale Customers' cost allocation amongst each other only, and do not in any way impact revenue collected by the SFPUC. Specifically, the new methodology deviates from the principle of Wholesale Customers paying their individual share of expenses on the basis of Proportional Annual Use.

The City of Millbrae believes it is crucial to outline the specific reasons for our apprehension:

- *Concern: The new recommended rate schedule shifts costs.*
  The City of Millbrae understands that there is an immediate need to address the meters that are not currently in place, however, the proposal also changes the existing rates among the Wholesale Customers, by shifting costs from larger to smaller meters because of a newly introduced flat rate called Customer Charge.

- *Concern: The complex methodology used by the SFPUC requires more time to review.*
  The proposed methodology for fixed monthly charges is complex, requiring more than 60 days to complete a thorough review. The Study does not share the SFPUC's complete rate model.

- *Concern: The other agencies surveyed in the Study do not have a balancing account treatment.*

Through the Balancing Account, the SFPUC always collects 100% of the calculated Wholesale Revenue Requirement from BAWSCA member agencies. Even if the fixed cost portion were zero, the SFPUC would still be assured a full cost recovery through annually adjusted volumetric rates.

- *Concern: The existing fixed monthly charges are already a variation from the principle of Proportional Annual Use.*
  This proposal further changes the basis on which SFPUC allocates costs to individual Wholesale Customers.

- *Concern: The Study signals future structural rate changes.*
  The Study also states that the SFPUC is considering proposing further structural changes to the wholesale water rate design, potentially establishing a precedent for future rate structure changes.

- *Request: Slow down the process.*
  The City of Millbrae requests the SFPUC to postpone making any changes to the current fixed monthly charges, considering other priorities between Wholesale Customers and the SFPUC. This will allow the Wholesale Customers to review the changes carefully.

- *Request: Conduct collaborative engagement between Wholesale Customers, BAWSCA, and the SFPUC.*
  Collaborative engagement will result in the development of fixed charges appropriate and satisfactory to Wholesale Customers fully consistent with the intent of the WSA.

Thank you for taking the time to consider our concerns. We look forward to the opportunity to discuss this matter further and work towards a mutually beneficial resolution. Please contact me at 650-259-2336 if you have any questions.

Sincerely,

Sam Bautista, P.E.
Director of Engineering & Public Works

Cc: Tom Williams, City Manager
Craig Centis, Deputy Director of Public Works
Heather Ruiz, Management Analyst
Alison Kastama, SFPUC

CITY OF PALO ALTO
UTILITIES DEPARTMENT
250 Hamilton Avenue. 3rd Floor
Palo Alto. CA 94301
650 329 2241

Dear Ms. Hom,

I am writing to address SFPUC's February 2, 2024 Wholesale Water Fixed Charge Study, specifically several serious concerns regarding the timing and process for implementing proposed changes to the fixed charges, as well as the structure of the charges themselves.

Palo Alto appreciates that new meter types may require an updated cost analysis. But ensuring that meter costs are properly identified and allocated is only the first of 3 critical factors. Any changes to existing rates must *also* be thoroughly evaluated by all impacted parties, *and* adhere to the contractual principles in the 2009 Water Supply Agreement.

Palo Alto requests that SFPUC pause implementation of these fixed charges to allow a transparent and thorough process. The complexity of SFPUC's study methodology requires significant time for review. In addition, SFPUC's study fails to provide complete insight into the SFPUC's rate model, further complicating the evaluation process. Palo Alto appreciates SFPUC's offer to meet and discuss the model in detail; doing so will require additional time.

The fixed charges, if they are continued at all, should adhere to the principles of the 2009 WSA; most importantly, the concept of allocating costs based on the Wholesale Customer's proportional annual use. The 2009 WSA is the product of 10 hard-fought years of litigation brought by Palo Alto and the Wholesale Customers over SFPUC's ratemaking practices.[1] Since then the parties have successfully navigated cost allocation decisions by following the principles set forth in the 2009 WSA. There is no reason to change course now. Yet the study's proposed cost shift, particularly the introduction of a flat rate "Customer Charge", is directly in conflict with the WSA's proportional annual use principle**.**

SFPUC's proposed fixed charges may not be necessary, since the 2009 WSA guarantees that SFPUC will receive its Wholesale Revenue Requirement, regardless of the amount of the fixed charges. SFPUC's proposed changes will needlessly increase costs for some Wholesale Customers, but ignores the fact that the 2009 WSA assures SFPUC of full cost recovery via the Balancing Account, irrespective of fixed cost variations. As a result, meter charges are an issue Wholesale Customers are well equipped to apportion *amongst themselves*.

Palo Alto welcomes the opportunity to collaborate with SFPUC on how best to identify and allocate fixed costs, in a manner that allows sufficient time to engage with all Wholesale Customers, and respects the objectives of the parties' 2009 WSA. I appreciate your attention to these matters and look forward to constructive dialogue to address these issues effectively.

Sincerely,

DocuSigned by:
Dean Batchelor
7C0097F94DAF492...

Dean Batchelor
Director of Utilities

[1] The 2009 WSA succeeds the 1984 "Settlement Agreement and Master Water Sales Contract" ("1984 Agreement") which was created to settle a lawsuit filed by Palo Alto and other Wholesale Customers in response to SFPUC's ratemaking practices. The 25-year term of the 1984 Agreement expired on June 30, 1999 and the 2009 WSA's 25-year term began immediately thereafter.

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26375 Fremont Road
Los Altos Hills, CA 94022
(650) 948-1217
PurissimaWater.org

PURISSIMA HILLS EST. 1955 WATER DISTRICT

April 1, 2024

Dear Erin Corvinova,

Thank you for taking the time last week to meet with one of our Supply Committee Board members and myself to discuss the SFPUC Wholesale Water Fixed Charge Study. I appreciate the SFPUC's openness to give Purissima the opportunity to share a few of our concerns regarding the study.

During our meeting, we highlighted our concern about the implementation of the new Customer Charge within the rate design, and how it is applied to each meter rather than to each wholesale agency. We would like this charge based on each of the 26 agencies rather than on each of the 206 meters. This adjustment would be crucial since wholesale agencies that have a larger number of meters could benefit more than those with just a few meters. Such a change would make the rate structure resilient through future improvements in meter technologies and capacities.

The overall monetary increase for PHWD may not be substantial, however the optics of a 36% increase for our agency, especially when other larger agencies with larger meters are experiencing decreases in their fixed rate, should be understandably concerning. These equity issues warrant careful consideration and further analysis.

We respectfully request that the implementation of the study for Fiscal Year 24-25 be delayed allowing BAWSCA and wholesale agencies ample time to conduct a thorough analysis and collaborate with SFPUC to create a methodology that is fair for not only the wholesale agencies but also the SFPUC.

We have recently heard that there has been a revised proposal from the SFPUC submitted to BAWSCA and we are eagerly anticipating reviewing it soon. Your attention to our concerns is greatly appreciated. Should you have any questions or require further clarification, please do not hesitate to reach out to me.

Sincerely,

Phil Witt
Purissima Hills Water District
General Manager

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Stanford University

SUSTAINABILITY, UTILITIES & INFRASTRUCTURE

March 28, 2024

Ms. Kristin Avenis
Financial Planning Team
San Francisco Public Utilities Commission
Sent via email: *KAvenis@sfwater.org*

Subject: Comments on SFPUC Wholesale Water Fixed Charge Study

Dear Ms. Avenis,
Stanford University appreciates the Financial Planning Team's time in preparing the Wholesale Water Fixed Charge Study (Study) and presenting at the Bay Area Water Supply and Conservation Agency (BAWSCA) Water Management Representatives (WMR) meeting on March 7. While we understand the need for the fixed charge rate setting for the new meter sizes and types currently without set charges, we have concerns related to these and potential future updates that are referenced in the Study and mentioned at the BAWSCA WMR meeting.

We understand and are familiar with the methods used to determine the fixed charges based on the American Water Works Association (AWWA) M1 Principles of Rates, Fees and Charges, 7th Edition. In order to divide and set costs associated with different meter sizes and types, a specific fixed revenue value had to be set. This Study is using 1.5% of the Wholesale Revenue Requirement as the fixed revenue portion, based on recent proportion of fixed revenue under the existing fixed charges. In this single update, that method may be reasonable for consistency with recent fixed revenue recovery, however, any future deviation from that method and percentage (1.5%) of fixed revenue proportion must undergo a more detailed rate structure study. We formally request that this and any future rate design or rate structure study include BAWSCA and the BAWSCA WMR in developing scope, reviewing progress, and developing and approving recommended changes.

Please contact me at (650) 223-9930 if you have questions or comments.

Sincerely,

Julia Nus

Julia Nussbaum, PE
Associate Director, Water Planning & Stewardship
Water Resources & Civil Infrastructure
Stanford University

cc: Alison Kastama, SFPUC
Nicole Sandkulla, BAWSCA
Tom Zigterman, Stanford Water Resources and Civil Infrastructure

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Westborough Water District
2263 Westborough Blvd. | South San Francisco, CA 94080
Mail: P.O. Box 2747 | South San Francisco, CA 94083-2747
Phone: 650-589-1435 Fax: 650-589-5167
Email: WWD@WestboroughWater.org Web: WestboroughWater.org

March 26, 2024

Via email: ecorvinova@sfwater.org

San Francisco Public Utilities Commission - 4th Floor
Attn: Erin Corvinova,
SFPUC Financial Planning Director, Financial Services
525 Golden Gate Avenue
San Francisco, CA 94102

Re: Westborough Water District's Concerns with the SFPUC FY 2024-25 Wholesale Water Fixed Charge Study

Dear Ms. Corvinova,

The Westborough Water District (WWD) has great concerns about the SFPUC's plan to change the fixed rates within the Water Supply Agreement (WSA) without working collaboratively with its Wholesale Customers and BAWSCA. These proposed rate changes impact Wholesale Customers cost allocation *amongst each other only*, and do not in any way impact revenue collected by the SFPUC. Specifically, the new methodology deviates from the principle of Wholesale Customers paying their individual share of expenses on the basis of Proportional Annual Use.

- **The new recommended rate schedule shifts costs**. The WWD understands that there is an immediate need to address the meters that are not currently in place, but the proposal also changes the existing rates among the Wholesale Customers, by shifting costs from larger to smaller meters because of a newly introduced flat rate called Customer Charge. The WWD has one of those smaller meters that would be affected.

- **The complex methodology used by the SFPUC requires more time to review.** The proposed methodology for fixed monthly charges is complex requiring more than 60 days to complete a thorough review.

- **The other agencies surveyed in the Study do not have balancing account treatment.** Through the Balancing Account, the SFPUC always collects 100% of the calculated Wholesale Revenue Requirement from BAWSCA member agencies. Even if the fixed cost portion were zero, the SFPUC would still be assured a full cost recovery through annually adjusted volumetric rates.

- **The existing fixed monthly charges are already a variation from the principle of Proportional Annual Use**. This proposal further changes the basis on which SFPUC allocates costs to individual wholesale customers.

- **The Study signals future structural rate changes.** The Study also states that the SFPUC is considering proposing further structural changes to the wholesale water rate design, potentially establishing a precedent for future rate structure changes. The WWD has major concerns to any changes that are not negotiated via BAWSCA and the WSA.

- **Request to slow the process down**. The WWD requests the SFPUC to postpone making any changes to the current fixed monthly charges, considering other priorities between Wholesale Customers and the SFPUC.

- **Request collaborative engagement between Wholesale Customers, BAWSCA, and the SFPUC.** Collaborative engagement will result in the development of fixed charges appropriate and satisfactory to Wholesale Customers fully consistent with the intent of the WSA.

Thank you for your time considering our concerns and requests regarding the SFPUC FY 2024-25 Wholesale Water Fixed Charge Study.

Sincerely,

Patricia Mairena
General Manager
Westborough Water District
P.O. Box 2747
South San Francisco, CA 94083-2747
650-589-1435
pmairena@westboroughwater.org

pm/pm

cc: Alison Kastama, SFPUC, BAWSCA Liaison
Nicole Sandkulla, BAWSCA CEO/General Manager

Bay Area Water Supply & Conservation Agency

April 1, 2024
Via E-Mail

The Hon. Tim Paulson, President
and Members of the Commission
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102

SUBJECT: Comments on the April 9, 2024, Proposed Revised Water System Improvement Program (WSIP)

Dear President Paulson and members of the Commission:

On March 8, 2024, the San Francisco Public Utilities Commission (SFPUC) notified the Bay Area Water Supply and Conservation Agency (BAWSCA) that it would be considering proposed changes to the Water System Improvement Program (WSIP) in accordance with the Wholesale Regional Water System Security and Reliability Act (AB 1823, Water Code Section 73500 *et seq*.). Consideration will take place via a public hearing held concurrent with the Commission's regular meeting of April 9, 2024. The revision package is collectively referred to as a Notice of Change (NOC).

Given the current complications related to the design and construction of the Alameda Creek Recapture Project (ACRP), coupled with the anticipated delay in completing the Regional Groundwater Storage and Recovery Project {RGSRP), BAWSCA supports the recommended Commission action to approve the NOC.

Findings:

1. **The most important WSIP changes in this NOC are related to the ACRP, with a proposed schedule delay of roughly 5 years and a $5M cost increase.**

   Regarding the ACRP schedule, the notice indicates a 96.5-month schedule extension to complete the ACRP. This results in a roughly 5-year extension for completing the WSIP. And yet the notice has discussion which indicates that detailed project planning and design cannot proceed until the slope stability and erosion issues are addressed by the quarry operator. As a reminder, the quarry pit serves as a water collection point and is a necessary component of the ACRP. BAWSCA understands that the lengthy extension is intended to provide sufficient time for the quarry operator, in concert with the SFPUC, to implement a solution. However, the schedule for completing this project is out of SFPUC's direct control and significantly dependent upon actions of a third party. **If the quarry operator cannot be compelled to implement slope repairs in a timely manner, there is the possibility that the project may take longer than 5 years to implement.**

Regarding the ACRP (and associated WSIP) cost, the notice describes a $5M increase in the WSIP budget to $4.792.8M. This increase is noted as necessary to complete the planning of the ACRP. However, it is clear from the most recent WSIP FY23-24 Quarter 2 Report that the $5M funding increase will not be sufficient to complete the project since most of the approved funding has been spent and a future WSIP construction contract will likely cost at least as much as the estimated cost of the project which was terminated due to slope concerns. **A future Notice will be necessary once planning is complete on the re-designed ACRP and updated cost estimates can be made**.

2. **The NOC recommends removal and long-term storage of well pumps systems for three of the RGSRP well sites which are designed to serve drought year water supply needs.**

   The NOC includes a detailed discussion of proposed plans for removal and long-term storage of well pump systems for three of the RGSRP well sites, specifically at the Hickey, Funeral Home and Treasure Island sites. The concept proposed by the SFPUC is that when those wells are needed to operate (during times of drought), that those wells can be installed in a manner that does not impact the overall RGSRP's operation or yield. In conversations with the SFPUC staff, it is BAWSCA's understanding that storage of well pumps will negate the need to maintain them over time. However, BAWSCA has concerns that installing them may prove more difficult than envisioned. Contractors would need to be brought on board quickly, there could be operational issues delaying the pump start-up, there may be permits to obtain, and the SFPUC must determine whether the pumps would need to be removed when groundwater extraction ends. **BAWSCA understands that the SFPUC believes that storing the pumps will minimize maintenance needs, yet also believes that the SFPUC should develop a more formalized plan for how to put them in place when needed and have the resources readily available to install them in a timely manner**.

Recommendation:

1. **In the resolution approving the NOC, the SFPUC should require that SFPUC staff, prior to the completion of the RGSRP, to develop a formal plan for the removal, storage and reinstallation of the three RGSRP pumps as identified in the NOC.**

   Refer to Finding #2 as presented in this letter for a further discussion as to why adding this to the NOC adoption resolution is appropriate**.**

BAWSCA continues to support the SFPUC's efforts to implement the WSIP on time, on budget and within scope for the protection of the 1.8 million residents and over 40,000 businesses in Alameda, San Mateo, and Santa Clara Counties that BAWSCA represents and that rely on the San Francisco Regional Water System for a reliable supply of high-quality water.

Sincerely,

Nicole Sandkulla
Chief Executive Officer/General Manager

NS/TF/le

cc: Dennis Herrera, SFPUC, General Manager
Steve Ritchie, SFPUC, Assistant General Manager, Water Enterprise
Stephen Robinson, SFPUC, Assistant General Manager, Infrastructure
Katie Miller, SFPUC, Director, Water Capital Programs
Alison Kastama, SFPUC, BAWSCA Liaison
BAWSCA Board of Directors
BAWSCA Water Management Representatives
Allison Schutte, Hanson Bridgett, LLP, Legal Counsel

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March 30, 2024

Los Vaqueros Reservoir Joint Powers Authority Update

MARCH BOARD OF DIRECTORS MEETING RECAP

On March 13, the JPA Board of Directors met in person at Zone 7 Water Agency. Discussion items included program management, budget and schedule, agreements, and design and permitting. The Board also received updates on federal relations efforts and engagement activities with Reclamation. The next JPA Board Meeting is scheduled for April 10 at Zone 7 Water Agency. In accordance with the Brown Act, the meeting agenda packet will be posted on the JPA website in advance of the meeting.

SUBMISSION AND REVIEW CONTINUE FOR PROJECT PERMITTING

Reclamation is actively coordinating with Contra Costa Water District (CCWD) to finalize the Memorandum of Agreement required under Section 106 of the National Historic Preservation Act. Execution is anticipated in the coming months.

California Department of Fish and Wildlife (CDFW) issued a final Incidental Take Permit (ITP) for near- and long-term operations on March 1. CCWD is incorporating the relevant terms from the ITP into the water rights change petitions.

The CCWD will be taking action on the ITP at its upcoming regularly scheduled Board meeting on April 3, 2024.

PROJECT AGREEMENTS

In March, the JPA management team met individually with the Member Agency general managers. The meetings aimed to evaluate project benefits, how to deal with potential risks to those benefits, and to find out what other information each agency needed to develop a business case for participating in the project.

JPA AND CCWD CONTINUE TO COORDINATE ON DESIGN AND ENGINEERING EFFORTS

Design of Pumping Plant No. 1 Replacement (PP1) continues to bring the 90-percent design submittal to conclusion. Once submitted, further work will be suspended in accordance with the JPA's capital preservation plan.

Revisions continue to the draft preliminary design report and drawings for the Transfer-Bethany Pipeline (TBPL). Once the 30-percent design is completed, further work will be suspended in accordance with the JPA's capital preservation plan.

Work continues to address remaining comments from the California Department of Water Resources (DWR) on the Turn-In design.

UPCOMING MEETINGS

April 10 – 9:30 a.m.
JPA Board Meeting (Zone 7 Water Agency)

April 18 – 10 a.m.
JPA Operations & Engineering Committee Meeting (Virtual)

April 24 – 10 a.m.
JPA Communications & Outreach Committee Meeting (Virtual)

April 25 – 1 p.m.
JPA Finance Committee Meeting (Virtual)

ADDITIONAL PROJECT INFORMATION

losvaquerosjpa.com
ccwater.com/lvstudies

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From:	Peter Drekmeier
To:	commission@sfwater.org; bawscaboardofdirectors
Subject:	Opportunity for Cheap Water
Date:	Friday, March 22, 2024 11:20:07 AM
Attachments:	SSJID explores remaking entire delivery system Modesto Bee.pdf

To: SFPUC Commissioners and BAWSCA Board Members
From: Peter Drekmeier, Tuolumne River Trust
Re: Collaboration with Irrigation Districts

Dear Commissioners and Board Members;

I wanted to draw your attention to the attached article — "SSJID explores remaking entire delivery system" — also found here, published in the Modesto Bee on September 8, 2015. It addresses the potential for much greater efficiency in the delivery of agricultural irrigation water in the South San Joaquin Valley Irrigation District (SSJID), a little to the north of the Modesto and Turlock Irrigation Districts.

Prior to this article, SSJID initiated a pressurized water system pilot project that found crop yields increased by 30% while water use decreased by 30%.

The attached article includes the following details:

"...the project, which would conserve about a quarter of the Stanislaus River supply, would make sense if the saved water were sold to outside buyers for an average of at least $350 per acre-foot."

"These improvements would cut down on water that evaporates, seeps into the ground or flows out the ends of canals. They have been in place since 2012 on about 3,800 acres in the southwest part of the district, which is looking at expanding them to all 56,000 acres."

"The project would conserve up to 73,110 acre-feet of water per year, consultants said."

One would assume similar opportunities exist in the Modesto and Turlock Irrigation Districts. MID irrigates approximately 60,000 acres (similar to SSJID), and TID about 150,000 acres.

$350 per acre-foot is a lot cheaper than $3,000 to $4,000 per acre-foot for alternative water supplies in the Bay Area.

Collaboration with MID and TID is worth exploring.

-Peter

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

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SSJID explores remaking entire delivery system
Modesto Bee | September 8, 2015 | John Holland
SSJID explores remaking entire delivery system | Modesto Bee (modbee.com)

Experts ran rough numbers Tuesday on costs and benefits of remaking the delivery system for the South San Joaquin Irrigation District.

They said the project, which would conserve about a quarter of the Stanislaus River supply, would make sense if the saved water were sold to outside buyers for an average of at least $350 per acre-foot.

That is far more than SSJID farmers are paying this year, but not unusual in the water market that has emerged in parts of California hit hard by drought.

The project involves “pressurizing” a system that has relied on gravity for the past century to get water to farmers around Ripon, Manteca and Escalon. Water from the main canal would go into six small reservoirs around the district, then would be pumped into pipelines serving surrounding farmers who use drip lines or microsprinklers to reduce consumption.

These improvements would cut down on water that evaporates, seeps into the ground or flows out the ends of canals. They have been in place since 2012 on about 3,800 acres in the southwest part of the district, which is looking at expanding them to all 56,000 acres.

Consultants briefed the SSJID board Tuesday on the initial estimates for the project, expected to cost about $325 million to plan and build and $8 million a year to operate. Directors will consider whether to move on to detailed design at a future meeting.

The project could require that district farmers pay at least $42 per acre-foot, said Duncan MacEwan, an economist with Era Economics in Davis. This year, most are paying $24 per acre, plus $3 for each acre-foot applied to that land. Customers in the area already pressurized pay more.

In return for the higher rates, farmers would get a state-of-the-art system that allows them to turn on the supply as needed via smartphone or other high-tech means. They also could reduce their reliance on groundwater, which is expensive to pump and, in some places, high in salts that can damage crops.

The project would conserve up to 73,110 acre-feet of water per year, consultants said. SSJID has rights to 300,000 acre-feet in years with ample rain and snow.

The conserved water could be attractive even at a high price to, for example, the Westlands Water District, a supplier west of Fresno that has had drastic cutbacks in its federal irrigation allotments. Another option is a nearby supplier, such as the Stockton East Water District.

MacEwen said $350 per acre-foot “is a plausible price, and we think the project is in the realm of economic and financial feasibility.”

The SSJID would finance the project over 30 years. It also is weighing the idea against the cost of maintaining the current system, which has many components more than 60 years old.

Board member Dale Kuil said he was concerned that the saved water, rather than being sold to another district, would be taken by the state to increase flows on the Stanislaus River and downstream. “

(Farmers) are worried about losing the water they are saving,” he said.

Board President Bob Holmes said that by exploring a pressurized system, “we are trying to position ourselves to grow our crops with whatever water is available.”

# # #

Bay Area Water Supply & Conservation Agency

March 21, 2024

Via email to nhom@sfwater.org

Ms. Nancy Hom
Chief Financial Officer and Assistant General Manager, Business Services
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102

Re: BAWSCA Concerns with the SFPUC Wholesale Water Fixed Charge Study

Dear Ms. Hom:

BAWSCA and its member agencies are in receipt of the Wholesale Water Fixed Charge Study dated February 2, 2024 (Study), prepared by the SFPUC Financial Planning Team. The Study contains revisions and additions to Schedule W-25, which contains the Monthly Service Charges applicable to BAWSCA member agencies. BAWSCA has specific concerns about the Study, requests delay in implementation and outlines below suggestions to move forward toward collaborative engagement.

BAWSCA Requests the SFPUC Suspend Implementation of Study. Due to the complex methodology used in calculations of the proposed fixed charge, a thorough review of the Study requires more than 60 days. On behalf of the Wholesale Customers, BAWSCA is asking for a more extensive and collaborative engagement process among the Wholesale Customers, BAWSCA, and the SFPUC. Accordingly, BAWSCA is asking that the SFPUC suspend implementation of the proposed fixed charges.

BAWSCA Acknowledges that New Charges are Needed for New Meter Types. BAWSCA acknowledges that Schedule W-25 must be updated for newer electronic meters not presently included, and that the existing Monthly Service Charges have not been updated for 14 years. BAWSCA appreciates the efforts of the Financial Planning Team for its attempt to create an equitable methodology and to avoid rate shock to the Wholesale Customers. BAWSCA has an alternative proposal to address these gaps that it will share with the Finance Planning Team through a separate communication.

The Proposed Monthly Service Charges Deviate From Proportional Annual Use. BAWSCA's overriding concern is that the proposed Monthly Service Charges are an ***explicit*** deviation from the key Water Supply Agreement (WSA) principle of allocating costs based on proportional annual use. For over four decades, the annual Wholesale Revenue Requirement has been allocated ***among*** the Wholesale Customers primarily on this basis. The Study has caused BAWSCA to look closely at the existing and proposed Monthly Service Charges to consider appropriate application of fixed charges within the unique aspects of the WSA. While BAWSCA recognizes that the Monthly Service Charges were carried into the existing WSA from previous agreements, BAWSCA feels strongly that the total revenue collected through fixed charges, and the fixed-charge differences charged ***among*** the Wholesale Customers, must be

more carefully and cautiously considered and that the BAWSCA and the Wholesale Customers should be closely engaged in the development of modified charges and new rate structures.

Are Monthly Service Charges Needed At All? Within the unique terms of the WSA, the SFPUC should be essentially indifferent to the Monthly Service Charges. This is because the SFPUC is assured full revenue recovery through the embedded balancing account treatment within the WSA. The result is that the magnitude and differences between the Monthly Service Charges are much more an issue ***among*** the Wholesale Customers than it is ***between*** the SFPUC and its Retail Customers. Furthermore, the balancing account treatment within the WSA is unique to the SFPUC wholesale contract and is a key difference from the wholesale suppliers analyzed in the Study. Many considerations analyzed in the Study are not relevant to the WSA as the SFPUC is guaranteed payment of the Wholesale Revenue Requirement regardless of the Monthly Service Charges or volumetric rates collected.

It is Timely for the SFPUC, BAWSCA, and the Wholesale Customers to Engage in a Collaborative and Constructive Dialogue on the Wholesale Rate Structure. This is an opportunity to engage BAWSCA and Wholesale Customers in constructive dialogue with SFPUC staff. The result can be better relationships between each of the agencies and the SFPUC while achieving a newly designed fixed rate structure appropriate to the unique aspects of the existing WSA.

Moving toward collaborative engagement, here are specific concerns with the proposed Customer Service Charges, including suggestions to move forward:

1. **Setting the fixed price revenue requirement at 1.5 percent of the projected FY24/25 Wholesale Revenue Requirement is arbitrary**. As shown in Table 9 from the Study, this calculated amount is $4,911,175, an increase of $456,189 from the existing total of $4,454,986. While BAWSCA appreciates that the SFPUC is limiting the fixed price component to a lower percentage of the total revenue requirement than in the past, BAWSCA would like to engage further in evaluation of an appropriate total amount to assign to the fixed cost allocation to be collected through Monthly Service Charges. This conversation should include considerations for modern technology now in use for physical metering, meter volume tracking, and the billing process to the Wholesale Customers. For example, new ultrasonic electronic meters do not have moving parts and may be less likely to fail. Additionally, more meters are now monitored remotely through cellular connections, not requiring a physical read each cycle. Furthermore, billing may be automated, not requiring individual attention each month. We would like to understand the current and near-term status of technology improvements related to customer services and metering, all to comprehend an appropriate total allocated fixed element, and to understand appropriate allocations across the Wholesale Customers.

2. **The proposed changes in Schedule W-25's Monthly Service Charge have caused BAWSCA to question the appropriateness of the existing fixed rate component of the water rates.** Both the existing and the proposed fixed rate component are scaled based on American Water Works Association's (AWWA) meter capacities. This is explicit in the proposed rates, and can be observed in the existing rates, as the existing fixed rates increase faster than the meter equipment costs. From the AWWA "M1"

manual, relating meter costs to meter capacities incorporates demand or capacity charges into the rate structure, as done commonly in retail rate setting. However, demand charges are not a component of the WSA. We would like to consider a simplified approach based on the cost of the meter itself, eliminating the demand component of cost in the Customer Service Charge.

3. **The new "Customer Charge" introduced within the rate design is applied to each meter rather than to each Wholesale Customer.** BAWSCA would like to explore a customer charge component (separate from the "meter charge" component) that is based on each of the 26 customers, as opposed to basing it on each of 206 meters. Such an approach could be more equitable to customers with large numbers of smaller meters. We also recognize that a customer charge based on 26 customers rather than 206 meters would likely include a much higher customer charge component, but, nonetheless, could be more equitable.

4. **The Study addresses the fixed charge impact analysis and should also include an impact analysis of the volumetric charge**. The Study provides an extensive comparison of current and proposed fixed rates in Table 9; however, the increased allocation of $456,189 to fixed costs also reduces the volumetric rate. This means that a customer that purchases large volumes of water will experience a measurable benefit from the volumetric cost reduction.

5. **The final version of a mutually agreed Fixed Charge Study should include additional explanations.** BAWSCA staff will follow up with the SFPUC's Financial Planning Team and provide further detailed comments and suggestions on the Study. More important than BAWSCA's suggested edits is the overall approach to setting new Monthly Service Charges discussed above.

6. **BAWSCA supports the SFPUC using extrapolated rates to fill fixed rate gaps for new meters until new comprehensive rates can be mutually agreed upon**. The Finance Planning Team stated that one impetus for the Study was the identified need for new Monthly Service Charges for three brand new meter types. BAWSCA has suggestions on how to set the potential new rates needed for 4-inch, 6-inch, and 16-inch electronic meters, and will provide them to the SFPUC's Financial Planning Team separately. BAWSCA believes that the note in the current Schedule W-25 explicitly allows inserting Monthly Services Charges for any new meters that are not currently in place.

BAWSCA appreciates the work done by the Financial Planning Team to create new Monthly Service Charges, both to provide new rates for the new electronic meters, and to improve the old rate structure. However, the Study has opened the much bigger issue for BAWSCA and its member agencies regarding the careful application of fixed charges within the WSA. As such, now is the opportune time for the SFPUC to engage with BAWSCA and the Wholesale Customers in a constructive dialogue related to changes to the SFPUC wholesale rate structure that are appropriate to the unique aspects of the existing WSA.

Thank you for your time considering our concerns and requests regarding the Study. Please feel free to call me directly if you would like to discuss this further. I will also ask Christina Tang, BAWSCA Finance Manager, to request a meeting with your Financial Planning Team to continue to provide detailed comments and discuss the next steps forward on this critical topic.

Sincerely,

Nicole Sandkulla
CEO/General Manager

ct/ns/ns

cc: Laura Busch, SFPUC Deputy CFO
Erin Corvinova, SFPUC Financial Planning Director, Financial Services
Matthew Freiberg, SFPUC Rates Manager
Kristin Avenis, SFPUC Rates Analyst
Catherine Malina, San Francisco Deputy City Attorney
Alison Kastama, SFPUC, BAWSCA Liaison
BAWSCA Water Management Representatives
Christina Tang, BAWSCA Finance Manager
Allison Schutte, Hanson Bridgett, LLP, Legal Counsel
Dan Bergmann, BAWSCA Financial Consultant

Bay Area Water Supply & Conservation Agency

March 20, 2024

Via email to acheung@sfwater.org

Ms. Angela Cheung
Division Manager, Water Supply & Treatment
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102

RE: Comments on SFPUC's Water Meter Maintenance and Testing Procedures Manual

Dear Ms. Cheung,

BAWSCA is concerned with SFPUC's December 2023 Water Meter Maintenance and Testing Procedures Manual (Meter Testing Manual) and is requesting a meeting with you and the Water Supply & Treatment Division in the coming weeks to discuss our comments which are outlined in this letter.

BAWSCA appreciates that the SFPUC has completed this draft of the Meter Testing Manual, the subject of BAWSCA's November 17, 2022 letter to General Manager Herrera. As you know, the Meter Testing Manual is a requirement of the Water Supply Agreement (WSA) Section 3.14(G) and is also required by the 1996 Settlement Agreements resolving arbitration demands related to County Line meter accuracy and Suburban Master Meter classification. Furthermore, in accordance with WSA Section 3.14(G), the SFPUC and BAWSCA must agree on changes to the frequency of testing outlined in Attachment J.

BAWSCA is not prepared to agree to the current draft of the Meter Testing Manual.

Background

BAWSCA shared its detailed comments on SFPUC's calibration practice with SFPUC General Manager and operations team in the July 24, 2020 memorandum "Review of Current SFPUC Wholesale Meter Testing Practices." Since that time, BAWSCA has regularly questioned SFPUC staff about the status of completion of the Meter Testing Manual, particularly during the December 19, 2022 meeting with SFPUC staff and at the Annual Wholesale Customer meetings in February 2022 and 2023. Although the SFPUC met some of BAWSCA's recommendations from the 2020 memo, it ignored others relating to the frequency of the meter testing and test flow rate limitations.

Accurate measurements of water deliveries and meter testing and calibration records are necessary under the WSA (Provision 3.14B). Meter maintenance and accuracy testing is especially important to BAWSCA agencies for two main reasons:

1. Wholesale Customer meter reads directly inform billing and therefore have direct financial consequences for each agency.
2. Wholesale Customer meter reads directly inform the “Water Imported” input in each agency’s State required annual water audit report and has implications in the calculation and reporting of an agency’s water loss volumes.

Historically, metering inaccuracies have resulted in significant legal disputes between the SFPUC and the Wholesale Customers.[1,2] To settle the 1996 arbitration, the parties agreed that "the present condition of the County-line meters is unacceptable and must be corrected and maintained ... " [3] The SFPUC committed "to seeing that organizational systems and procedures are developed and implemented to ensure equipment is maintained, records are kept, and contract provisions are honored in a manner befitting the SFPUC's stature as a regional water utility for one of the world's largest and most economically productive metropolitan areas."[4]

How Meter Testing is Related to State Requirements

State law requires Urban Retail Water Suppliers to submit an annual validated American Water Works Association (AWWA) Water Audit.[5] SFPUC’s meter testing practices are crucial in this process, given that accurately evaluating total imported water and addressing meter errors are fundamental for effective water loss control. The accuracy of water supplied into the distribution system, being the largest input for water audits, is paramount for managing system-wide water loss effectively.

For many of SFPUC’s Wholesale Customers, imported water from SFPUC is the largest, if not the only, water supply. As the wholesale provider of water to 26 Bay Area water systems, SFPUC’s meter maintenance and testing procedures significantly influence these systems’ ability to meet regulatory requirements and implement water loss measures effectively. Delays in addressing import volume accuracy can distort water loss reports, mask real water loss issues, and result in non-compliance with State required real water loss targets.

Specific Comments on the Meter Testing Manual

BAWSCA and its consultants, E Source and Stetson Engineers Inc., conducted a review of the Meter Testing Manual and are concerned with the frequency and management of testing of both the system and wholesale meters. BAWSCA’s comments below address the specific deficiencies of the Meter Testing Manual:

[1] 1995 Partial Settlement Agreement.
[2] 1996 Second Partial Settlement Agreement.
[3] Id. at 3
[4] 1996.07.09 Otsea letter to Short Re: Second Partial Settlement Agreement at 1.
[5] Beginning in 2017, SB 555 requires urban retail water suppliers to submit a validated water loss audit report, following AWWA procedures, for the previous calendar or fiscal year to DWR. The State Water Board is analyzing data collected through the annual water loss audit submissions to develop performance standards that agencies will need to achieve to reduce water loss.

System Meters

- **Comment #1: BAWSCA does not agree that SFPUC should reduce the frequency of County line meter testing and calibration to Annually from Quarterly as required by the WSA.**

  Discussion: County-line meter readings are integral to determining Wholesale Customers' water usage proportions from the RWS and impacting annual allocation rates crucial for cost allocation. The secondary metering equipment associated with the County-line meters has undergone quarterly testing and calibration since the 1996 arbitration, supported by independent consultant reports, emphasizing the necessity of quarterly checks. Given the substantial flow rates and volume of water delivered, quarterly testing is justified. Reducing testing frequency of the secondary metering equipment to annual intervals, as suggested in Section 4.3.4 because "operational or resource constraints may prevent certain meters from being calibrated or tested," risks compounding errors over time, potentially leading to significant errors which could raise concerns about data correction and its implications on annual allocation rates. BAWSCA opposes these changes, noting their contradiction with the established maintenance schedule outlined in the 2009 WSA's Attachment J.

- **Comment #2: BAWSCA does not agree to amend Table J-1 and J-5 in the WSA.**

  Discussion: The SFPUC's proposed change to the form and format of the long-standing J-table cannot be accepted and further discussions between SFPUC and BAWSCA need to be had before agreeing on any amendments. The purpose of the J-table is to identify the proportional amounts of water from the RWS that are used in San Francisco and by the Wholesale Customers. The J-table also shows the RWS inflows and in-line water measurements. The SFPUC's proposal to add details to the J-table for the various water meter types, locations, and calibration frequency is unnecessary, overly complicated, and better suited for a narrative section of the Meter Testing Manual or separate table altogether. The proposed Table J-1 is mixing two sets of data and information which compromises the clarity and value of having the two sets of data in separate and distinct tables. The form and format of the proposed Table J-1 is barely legible and will prove to be unworkable if it is accepted in its current state. As stated on page 1, BAWSCA does not agree at this time to the change in frequency of meter testing as shown on Table J-5.

Wholesale Meters

- **Comment #3: The Wholesale Customer Meters should be tested annually.**

  Discussion: There are a wide variety of wholesale meters, varying in size and the amount of flow they handle, with some being used more frequently than others. The Meter Testing Manual outlines testing intervals ranging from yearly to every 2, 4, or 6

years based on “an individual meter’s usage pattern.” BAWSCA is concerned about intervals exceeding 2 years and recommends annual testing for all meters to ensure accuracy. BAWSCA disagrees with determining testing frequency based solely on “volume of flow,” and with the suggestion “that annual testing frequency offers little value for many of the wholesale meters.” Extended testing intervals may impede timely results for water loss reporting and reduce maintenance frequency, contrary to best practices. Infrequent meter testing has significant regulatory, financial, and operational implications, potentially compromising compliance evaluations and water management decision-making, particularly for agencies with smaller water volumes or multiple import connections. BAWSCA advocates for annual testing and maintenance of wholesale customer meters to maintain meter accuracy, aligning with the SFPUC’s current baseline meter testing practices for County-Line and In-City Terminal Reservoir meters and with standards set by the American Water Works Association (AWWA M36, Appendix A, Page 308).

- **Comment #4: BAWSCA recommends that testing should be conducted at a flow rate representing the typical flow experienced by the specific Wholesale Customer meter being tested.**

  Discussion: The current Meter Testing Manual specifies that three varied flow rates will be tested and a weighted average of these three test results will be used to inform maintenance or replacement activities. An acknowledged limitation to the currently proposed testing protocol is the inability of the test meter to reliably and repeatably test flow above 400 gallons per minute (gpm) as indicated in Section 5.3.1.1. As such, only the low-test flow rate is able to meet the AWWA M6’s recommendation for Class II Turbine Meters. Flow rate limitations may impact the ability to assess larger meter (6-10”) accuracies at higher flows. Therefore, testing should be conducted at the full range of flows the Wholesale Customer meter typically encounters, potentially using the customized flow profiles generated from 15-minute AMI data.

- **Comment #5: Unitized Measuring Units (UMEs) removed from service should be either field tested and/or bench tested.**

  Discussion: When UMEs are replaced as a stand-in for in-situ accuracy testing, valuable insights into meter accuracy prior to replacement are lost as indicated by many of the Wholes Customers, as the meters are not tested in their original installation. This practice hinders both the Wholesale Customer and the SFPUC from assessing the meter’s performance before refurbishment, thus limiting the ability to make necessary water audit adjustments within the reporting period. To address this, BAWSCA recommends either field testing and/or bench testing any UME removed from service. The results of these tests should be documented and provided to the Wholesale Customer following the standard meter accuracy reporting protocol, ensuring transparency and accountability in the testing process.

BAWSCA appreciates the SFPUC's efforts to document Wholesale Customer meter maintenance and testing procedures as it is necessary under the WSA. With these considerations in mind, BAWSCA is requesting a meeting with SFPUC to further discuss the identified concerns of the Meter Testing Manual and to determine what is needed to create a plan that will service both the SFPUC and its Wholesale Customers.

Sincerely,

Nicole Sandkulla
CEO/General Manager

tf/ns//le

cc: Steven Ritchie, SFPUC, Assistant General Manager of Water Enterprise
Catherine Malina, San Francisco Deputy City Attorney
Alison Kastama, SFPUC, BAWSCA Liaison
BAWSCA Water Management Representatives
Allison Schutte, Hanson Bridgett, LLP, Legal Counsel

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From: Judith Casino (oliviaccasino@gmail.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Participation at BAWSCA
Date: Saturday, March 30, 2024 7:26:05 AM

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 must re-implement remote participation options including live streams of Board meetings and remote public comment services. As BAWSCA continues 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 live streams and remote public comment. Thank you for recognizing the impact that remote participation has on increasing the accessibility and transparency of BAWSCA.

Sincerely,

Sincerely,

Judith Casino
21 Leeds Ct West
Danville, CA 94526
oliviaccasino@gmail.com
(925) 854-8992

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From: Gita Dev (gd@devarchitects.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Participation at BAWSCA
Date: Thursday, March 28, 2024 10:58:25 AM

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 must re-implement remote participation options including live streams of Board meetings and remote public comment services. As BAWSCA continues 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 live streams and remote public comment. Thank you for recognizing the impact that remote participation has on increasing the accessibility and transparency of BAWSCA.

Sincerely,

Sincerely,

Gita Dev
485 mountain home road
woodside, CA 94062
gd@devarchitects.com
(415) 733-5566

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From: Bethi Carver Gibb (bethijc@icloud.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Participation at BAWSCA
Date: Tuesday, March 26, 2024 5:46:54 PM

Dear BAWSCA Board of Directors,

I want to join the meeting with zoom.

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.

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Sincerely,

Sincerely,

Bethi Carver Gibb
P.O. Box 2022
Bethel Island, CA 94511
bethijc@icloud.com
(925) 428-8335

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From: Kristel Wickham (kristel@timetodream.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Participation at BAWSCA
Date: Tuesday, March 26, 2024 4:04:37 PM

Dear BAWSCA Board of Directors,

Democracy is forever changed and improved by remove public participation. Literally everyone is doing it - Councils, Commissions, School Boards?. Please join the post-pandemic era.

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.

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Sincerely,

Sincerely,

Kristel Wickham
1102 Viscaino Ave
Sunnyvale, CA 94086
kristel@timetodream.com
(408) 219-2256

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From: Yanely Zavala-Villafuerte (yanely@sociologist.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Participation at BAWSCA
Date: Tuesday, March 26, 2024 3:39:33 PM

Dear BAWSCA Board of Directors,

Dear Board Members,

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Sincerely,

Sincerely,

Yanely Zavala-Villafuerte
1934 Ribera Drive
Oxnard, CA 93030
yanely@sociologist.com
(805) 263-9807

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From: Kai Martin (kaismartin@gmail.com) Sent You a Personal Message
To: bawscaboardofdirectors
Subject: Restore Remote Participation at BAWSCA
Date: Thursday, March 21, 2024 9:06:20 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 must re-implement remote participation options including live streams of Board meetings and remote public comment services. As BAWSCA continues 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 live streams and remote public comment. Thank you for recognizing the impact that remote participation has on increasing the accessibility and transparency of BAWSCA.

Sincerely,

Sincerely,

Kai Martin
1519 Terra Nova Blvd
Pacifica, CA 94044
kaismartin@gmail.com
(510) 375-1231

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CALIFORNIA DEPARTMENT OF
WATER RESOURCES

News Releases
April 2, 2024

State Releases California Water Plan Update 2023: A Roadmap to Water Management and Infrastructure for a Water Resilient Future

The 2023 update focuses on equity, watershed resilience, and climate urgency

SACRAMENTO, Calif. – The California Department of Water Resources (DWR) has released the final version of California Water Plan Update 2023. This plan is a critical planning tool and can now be used by water managers, such as water districts, cities and counties, and Tribal communities, to inform and guide the use and development of water resources in the state.

California Water Plan Update 2023 began with the vision: “All Californians benefit from water resources that are sustainable, resilient to climate change, and managed to achieve shared values and connections to our communities and the environment.” To tackle this ambitious vision, California Water Plan Update 2023 focuses on three intersecting themes: addressing climate urgency, strengthening watershed resilience, and achieving equity in water management.

“With climate change posing uncertain challenges, California Water Plan Update 2023 highlights the importance of innovation and investments in the state's watersheds, water systems, and frontline communities,” said DWR Director Karla Nemeth. “This plan helps build a future where all Californians can be more water resilient and how we can all take action to adapt our communities to thrive in more extreme weather conditions.”

Getting to the final version of California Water Plan Update 2023 was a collaborative effort. From Tribal engagement to public workshops to meetings with other state agencies, the feedback and suggestions DWR received were included in California Water Plan Update 2023, making it truly California’s Water Plan.

California Water Plan Update 2023 weaves equity throughout the document and dedicates a full chapter to this very important topic. The term frontline communities, defined as those communities who experience the “first and worst” of environmental consequences, is introduced and highlighted as a population of California that needs to be incorporated in decision-making processes. For the first time ever in a California Water Plan, an entire chapter is dedicated to the challenges, strengths, and resources of California Native American Tribes. Chapter 7, “Strengths and Resources of California Native American Tribes" was co-authored by members of the California Water Plan Tribal Advisory Committee consisting of Tribal Chairs, members, and representatives. Addressing these equity challenges is crucial for climate adaptation and community resilience for all who live in California and is in accordance with Governor Newsom’s Executive Order N-16-22 which directs State agencies to take critical actions and address equity in all strategic plans and updates.

“Climate change and weather whiplash threaten the future of our water systems,” said California Natural Resources Secretary Wade Crowfoot. “We clearly need to adapt to these changes as quickly as possible so California will continue to thrive. California Water Plan Update 2023 guides our way forward, laying a roadmap for updating our water management and infrastructure to ensure a resilient water future.”

California Water Plan Update 2023 lays out a path toward its vision through seven objectives:

1. **Support watershed resilience planning and implementation** – The State will prioritize actions, programs, and funding so local communities can improve and accelerate climate resilience planning and implementation in their watersheds.
2. **Improve resiliency of “backbone” State, federal, and regional built water infrastructure** – As built infrastructure ages, it must become more resilient to adapt its operations for climate change, be better integrated with other systems, and improve information sharing.
3. **Improve resiliency of natural “backbone” infrastructure** – Built infrastructure relies on natural infrastructure, such as rivers, lakes, groundwater basins, and more. Improving resilience means faster ecosystem restoration and identifying key ecosystems and groundwater basins.
4. **Advance equitable outcomes in water management** – Resilience for California means resilience for all. However, inequities exist in California’s institutional systems. Recommendations include improving community outreach, engagement, and access to State assistance programs.
5. **Support and learn from Tribal water and resource management practices** – California Native American Tribes have a history of sustainability managing water and other resources. We must support and learn from Tribal water management practices and help Tribal communities address ongoing challenges like access to funding, engagement, and water rights issues.
6. **Support and increase flexibility of regulatory systems** – Regulatory programs that are flexible and adaptable to meet the challenges of changing hydrology must be supported.
7. **Provide guidance and support continued resources for implementation of actions toward water resilience** – Sustainable resources such as funding at the local, state, federal levels are needed to develop statewide and watershed resilience. This objective’s recommendations align resources with the needs of California water management.

Each objective contains multiple recommendations and actions to achieve the listed objectives.

For decades, the California Water Plan has evolved as a strategic blueprint for managing and developing the state's water resources. Every five years the California Water Plan is updated, as mandated by the State Water Code, to reflect current water conditions and State government priorities. The 2023 update has been shaped by the Water Resilience Portfolio, input from state agencies and interested parties, state needs and priorities, and the Governor's commitment to

climate action, as demonstrated in California's Water Supply Strategy: Adapting to a Hotter, Drier Future.

Watershed Resilience Pilot Program

Chapter 5 of California Water Plan Update 2023 calls for implementing strategies that will help frontline communities strengthen local water supply and climate resilience. From this recommendation, DWR is launching the Watershed Resilience Program, which will award five watersheds a total of $10 million to be announced later this month. These funds will be used to assess local climate variability and risks, while developing strategies to adapt to climate change and weather whiplash.

California Water Plan Update 2023 Webinar

DWR is hosting a two-hour webinar on Monday, April 29, 2024 from 10:00 a.m. - 12:00 p.m. to highlight the key points of California Water Plan Update 2023. The webinar will also highlight upcoming projects and funding that put California Water Plan Update 2023 into action. To attend this webinar please register via Zoom.

# # #

To receive updates on California Water Plan related news, subscribe to California Water Plan eNews.

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What California's 'unusually average' snowpack means for water resources
San Francisco Chronicle | April 2, 2024 | Jack Lee

Snow surrounds homes near Sierra-at-Tahoe in Twin Bridges (El Dorado County) on March 4.
Noah Berger/Special to the Chronicle

California's snowpack is kicking off April just above average — a welcome reversal following a dismal start.

"January 1st, we were at 28% of average, which was not fantastic," said Andrew Schwartz, lead scientist and manager of UC Berkeley's Central Sierra Snow Laboratory during a briefing Monday.

Subsequent storms in January, February and March turned things around. As of Monday, the lab's snow totals for the season were about 108% of average.

It's a similar story across the state. The Sierra Nevada snowpack was 110% of average on April 1, according to the Department of Water Resources. This is good news for the state's water resources and doesn't raise flood risks like last year.

"Overall, it's unusually average," said Jay Lund, vice director at the Center for Watershed Sciences at UC Davis and a professor of civil and environmental engineering. "Given that California is a land of floods and droughts, average is about as good as it gets."

Officials keep a close eye on the state of the snowpack in early April because that's when snow totals typically peak in the Sierra Nevada. As snow melts during spring and summer, it feeds

rivers and streams that flow into California's surface reservoirs. Snowmelt also keeps soils moist, keeping vegetation green and limiting wildfire activity.

A man skis Park Avenue with his dog as heavy snow continues to fall in South Lake Tahoe during a March storm. Noah Berger/Special to the Chronicle

"Average is awesome," said DWR Director Karla Nemeth during a briefing Tuesday, following the April snow survey at Phillips Station.

The healthy amount of rain and snow means most of California's major reservoirs are well above average.

"This … really kind of paints a best-case scenario for where we're at with our water resources," Schwartz said. "Another big year like last year could have put some pressure on water managers in terms of mitigating flood danger and flood risk."

But state and federal water managers have shown restraint in planning water deliveries.

Last month, operators of the State Water Project, a vast network of reservoirs and canals that includes Lake Oroville, said they expect to ship 30% of the supplies requested by water agencies this year. The projected allocation is up from 15% in February but well short of last year's full delivery of water.

Managers of the federally run Central Valley Project, which provides mostly agricultural water from giant Shasta Lake and other reservoirs, similarly raised their expectations for deliveries last month but only so much.

Most contractors in the Sacramento Valley are projected to receive a full water allocation this year. However, in the San Joaquin Valley, where most of the state's fruits, vegetables and nuts are grown, the projected allocation is 35%.

"This is very disappointing and not because our expectations are unrealistic," said Allison Febbo, general manager of Westlands Water District, the nation's largest farm district, in a statement. "The broad public discussions surrounding water management in California have led us to believe that higher levels of delivery would be possible in better hydrologic years, such as this one."

The delivery estimates will be updated later this spring, meaning the allocations could change.

Years like this one provide California water managers with an opportunity to prepare for floods as well as droughts, Lund said.

"Average years are not years to be complacent. They're years to implement things and prepare things for the flood years (and) the drought years that you know are coming." Lund said. "Every year should be busy for California water."

# # #

Kurtis Alexander contributed to this report.

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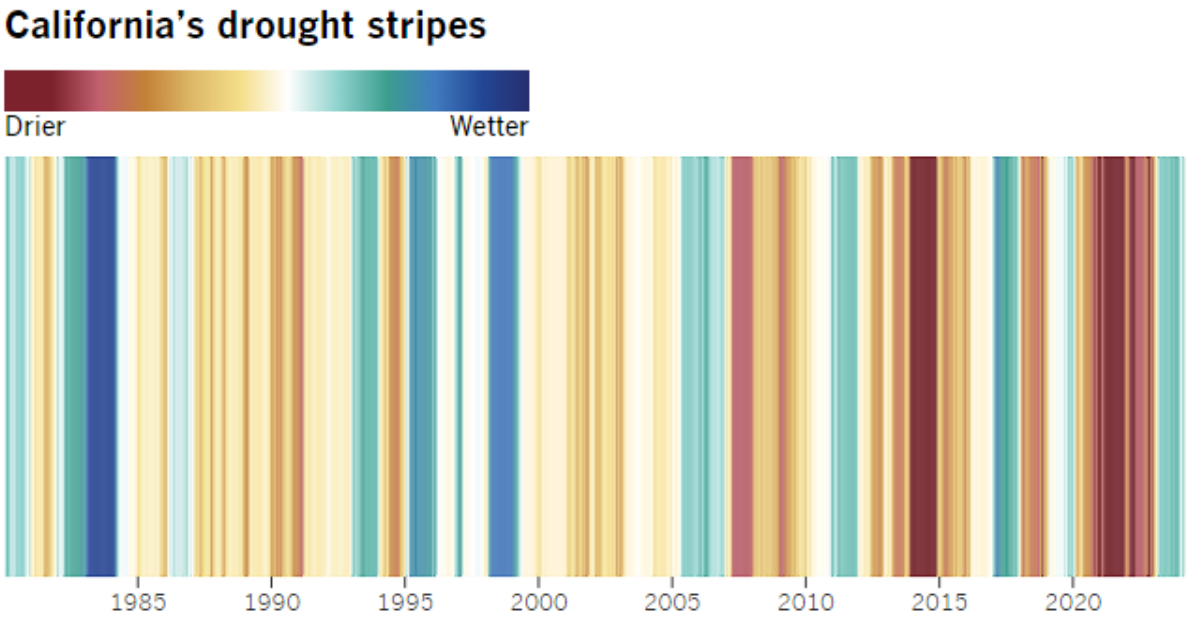
Tracking California's water supplies
LA Times | April 1, 2024 | Sean Greene

The American Southwest recently experienced its driest period in 1,200 years. Storms in the winter of 2023 eased some of California's extreme drought conditions, but officials stress that conservation should remain a way of life.

This page tracks hydrological conditions, precipitation, the Sierra snowpack and the largest reservoirs serving the state.

California's worsening droughts
California naturally cycles between wet periods and droughts. But scientists have found that globally climate change is intensifying the water cycle and bringing more extreme droughts, as well as more extreme bouts of wet weather.

The graphic below shows the intensity and duration of droughts and wet periods since the 1980s. Over the last decade, the state has endured more frequent and severe dry periods punctuated by fewer wet years.

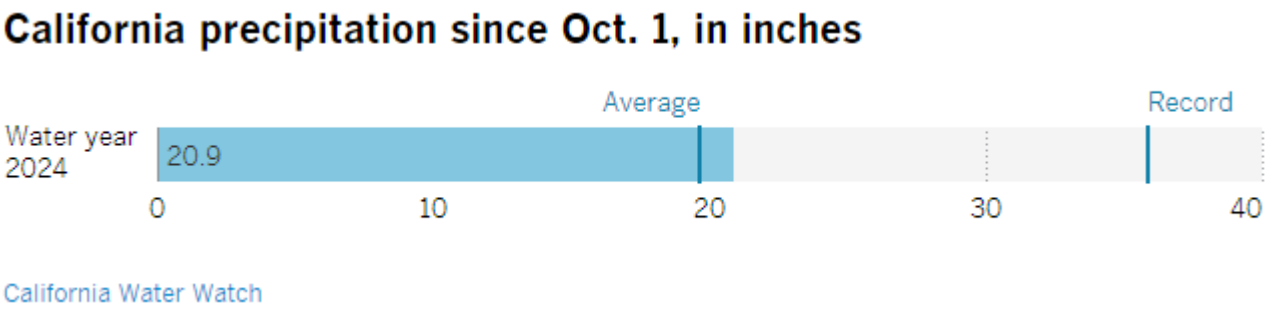


Stripes are colored based on the "one-year standardized precipitation evapotranspiration index," or the one-year standard deviation of water balance from the average. Each stripe represents five days. Data as of March 20.

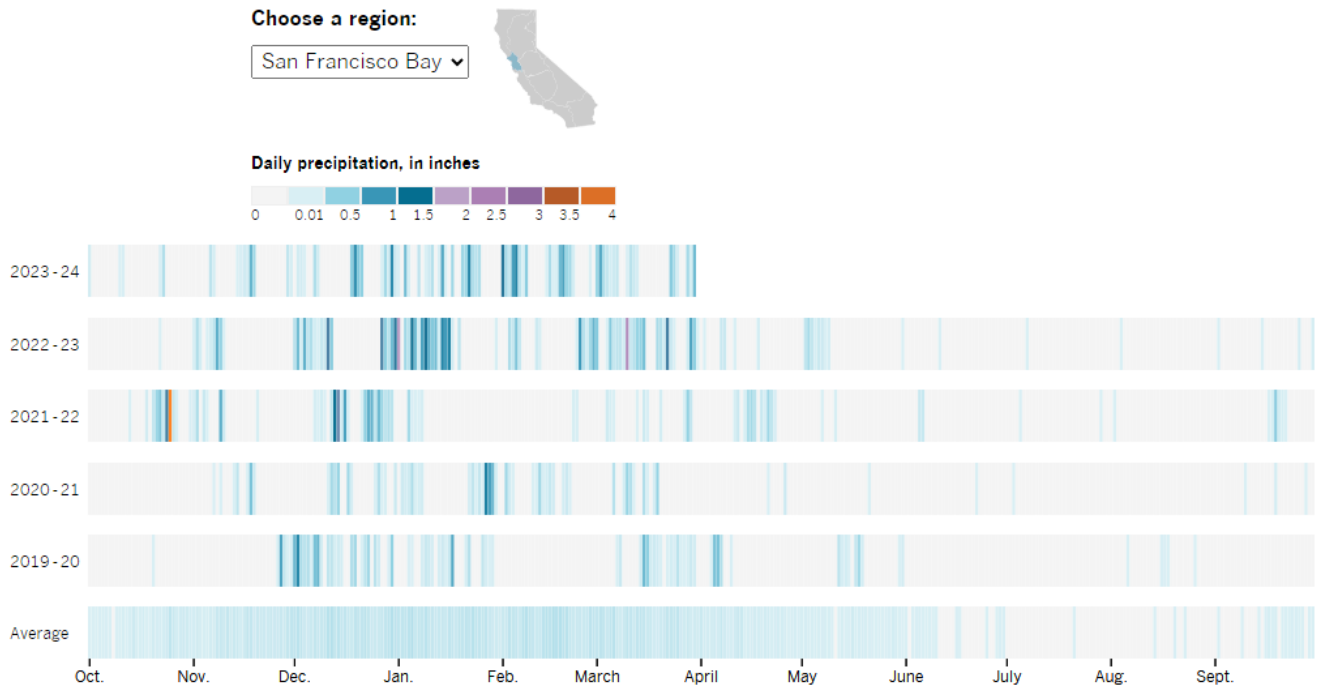
Katherine Hegewisch and John Abatzoglou, Historical Drought Stripes, Climate Toolbox

How much rain and snow has fallen in California?
Precipitation is tracked the across the "water year," beginning Oct. 1 and ending Sept. 30.

As of March 30, the state has received 20.9 inches of precipitation, or 106% of the average for this date.



California typically sees most of its rain and snow during the first half of the water year, which is followed by the warmer and drier spring and summer. The graphic below shows daily precipitation totals since 2000 for the state and its major drainage basins, or hydrologic regions.



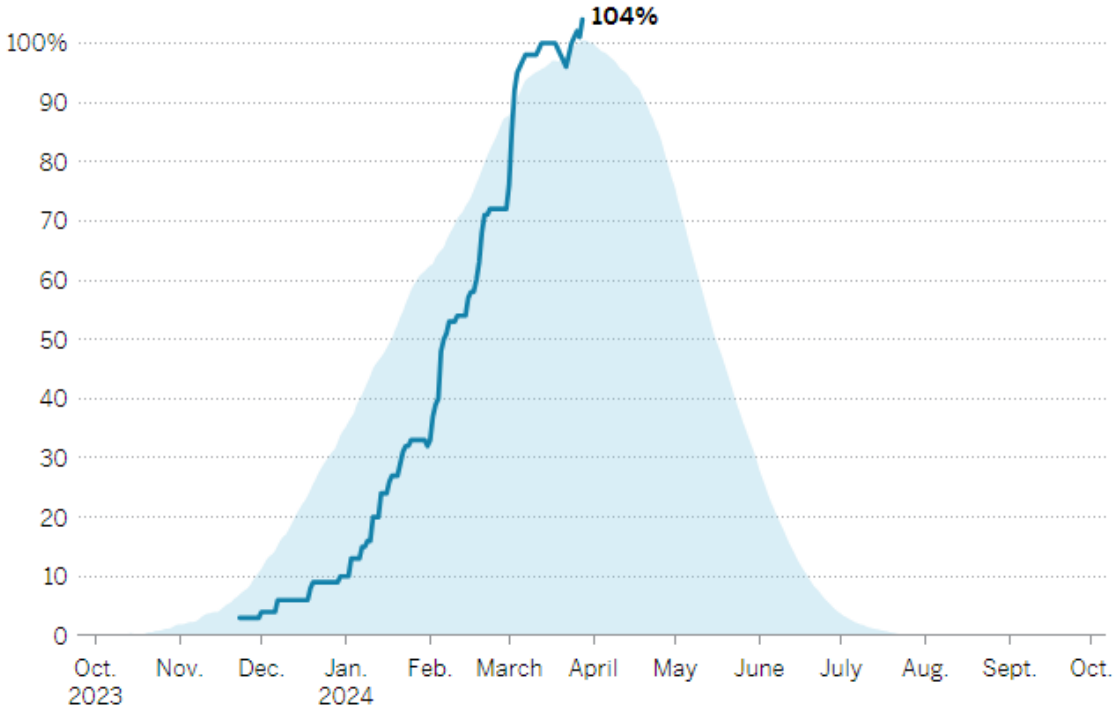
What role does the snowpack play in California's water supply?

The Sierra Nevada snowpack serves as the state's natural water storage system. In "normal" years, the snowpack accumulates in the winter months then melts gradually through the spring, feeding rivers and refilling reservoirs throughout the state.

The historic snowpack of 2023 eased drought conditions in most of the state.

Sierra Nevada snowpack

The snowpack is now 104% of the average April 1 peak and 104% of the average for March 28.

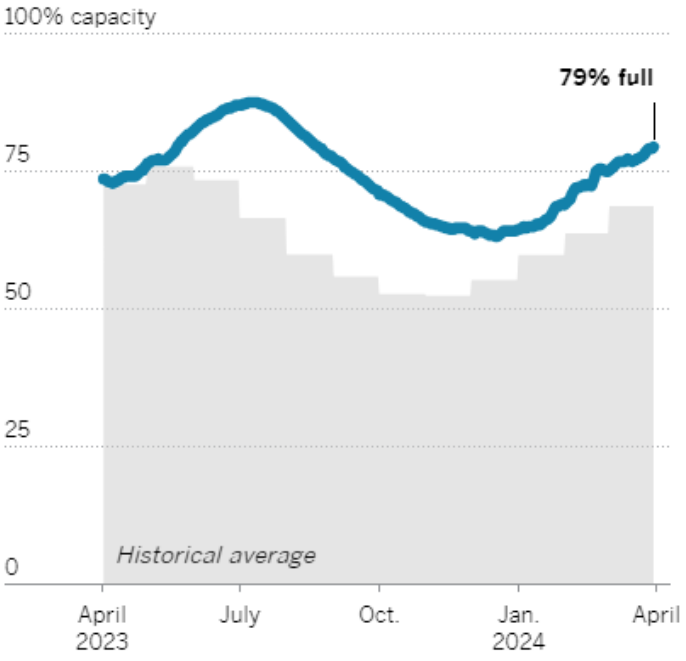


Data as of March 28

California Department of Water Resources

How much water does California have stored in reservoirs?

California reservoirs

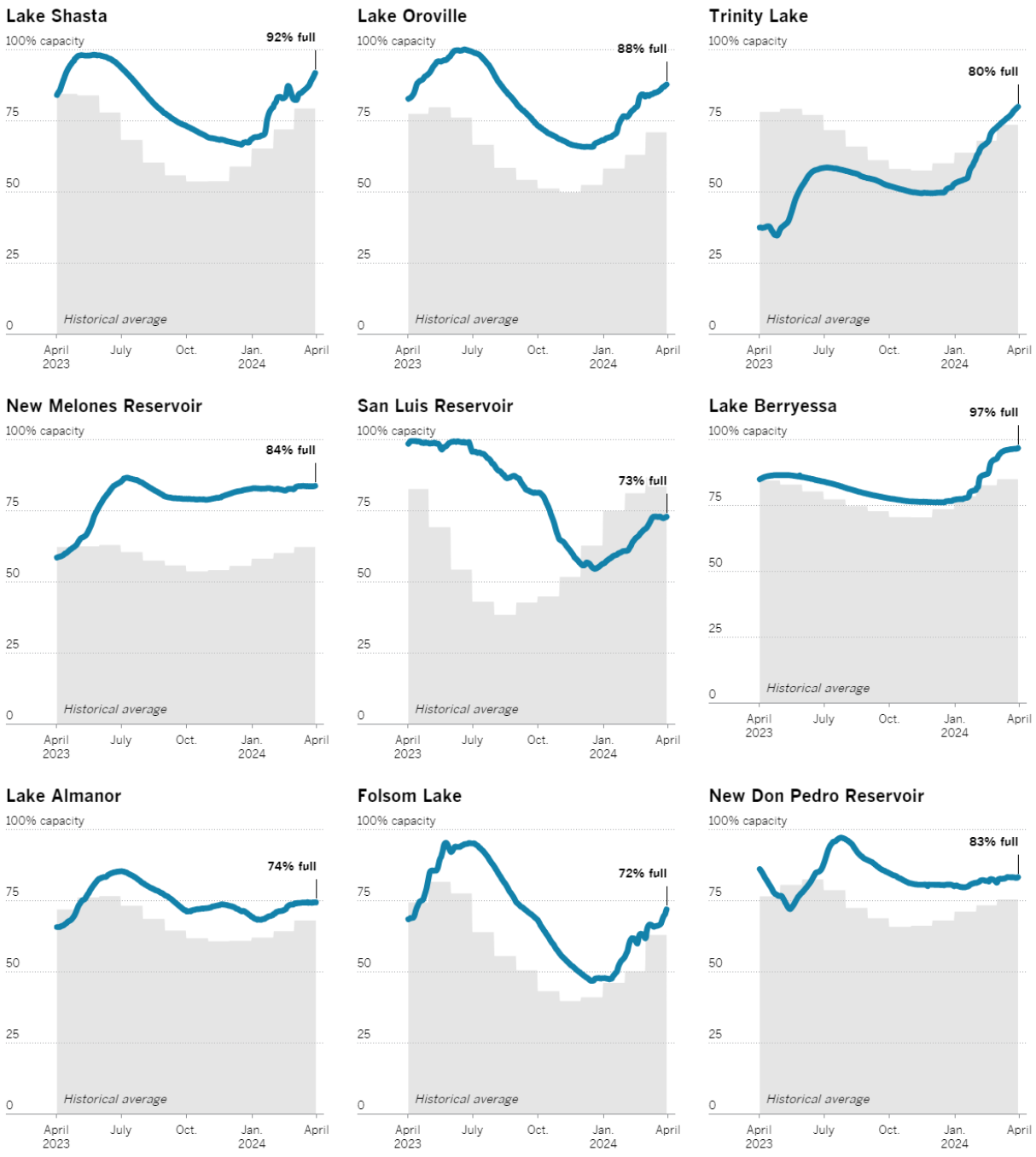


California Department of Water Resources

California has the ability to store nearly 40 million acre feet of water behind dams around the state. The state Department of Water Resources reports a regular accounting of the water levels at 154 reservoirs representing the vast majority of the state's water storage capacity.

As of March 30, state reservoirs stand at about 79% capacity. That's above the 30-year average of 69% for the month of March.

Large Northern California reservoirs supply Southern California with much of its water. Below are the current levels for some of the major reservoirs, in order of total capacity.



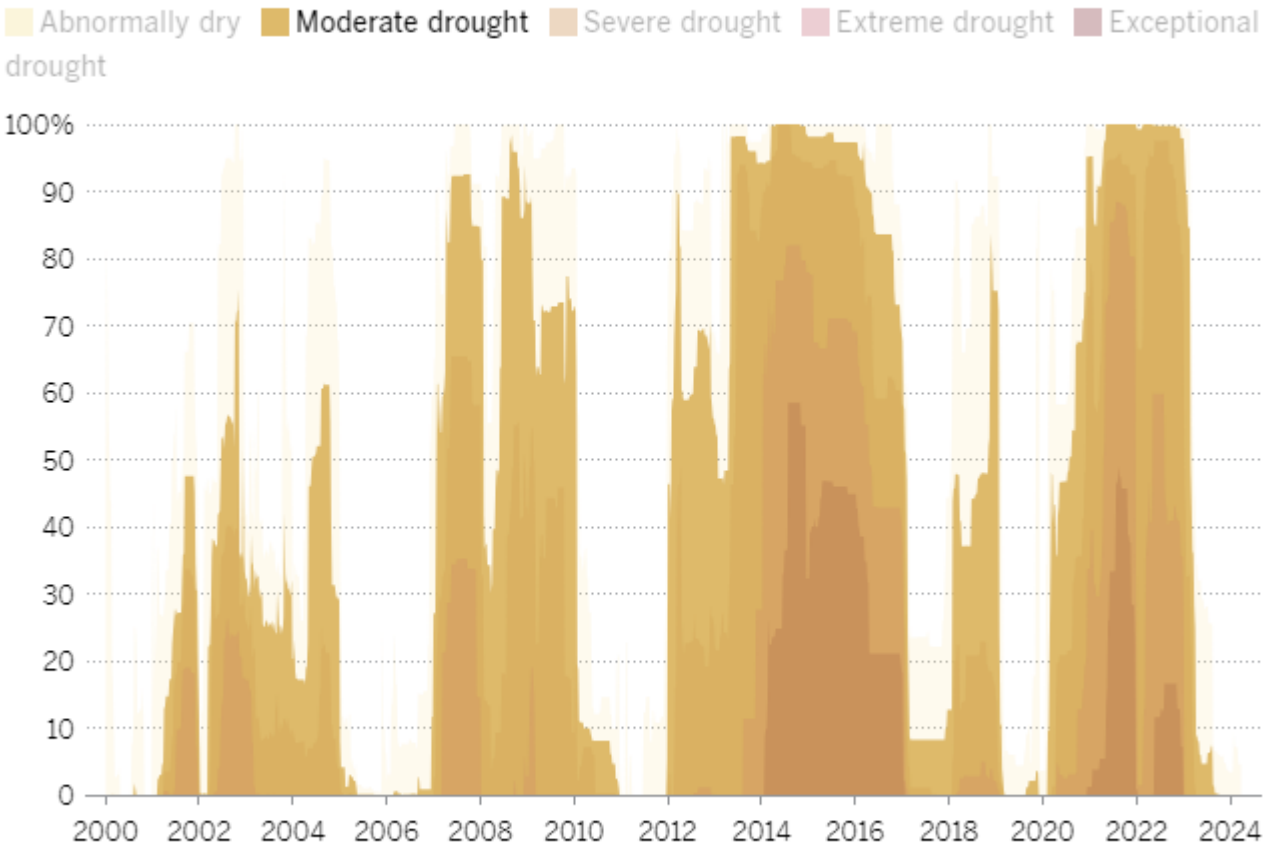
California Department of Water Resources

How dry is California?

The drought in California and the American West has been worsened by rising temperatures caused by climate change. Scientists in 2022 found that the region as a whole, from Montana to California to northern Mexico, experienced the driest 22-year period in more than 1,200 years.

Drought in California since 2000

Percentage of area in each U.S. Drought Monitor category



Data as of March 26

U.S. Drought Monitor

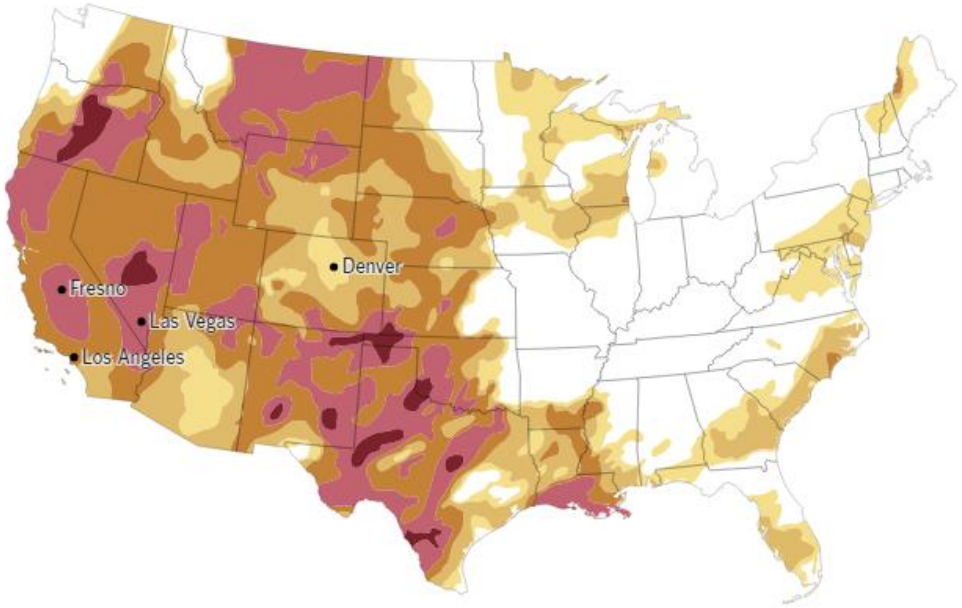
Since 2000, the U.S West. has grown warmer and drier. Data from the U.S. Drought Monitor shows that the region has plunged deeper into extreme drought over the past several years. Scientists have increasingly said the West is experiencing “aridification” driven by human-caused climate change, and they have called for the region to prepare for drier conditions in the long term as temperatures continue to rise.

Compared with 2022, conditions in the U.S. have improved. About 42% of the country is at least abnormally dry, according to the drought monitor.

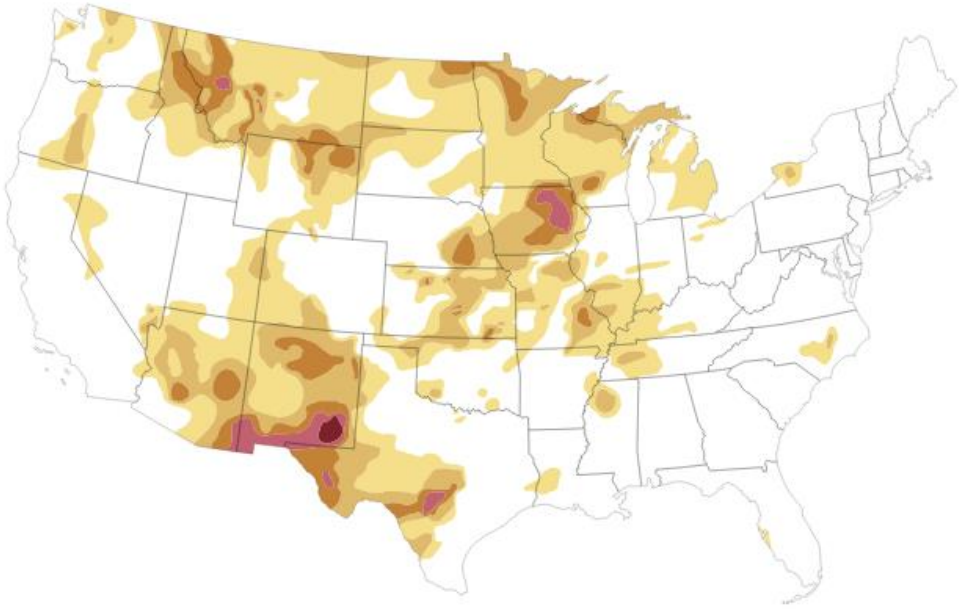
U.S. drought conditions

No drought Abnormally dry Moderate drought Severe drought Extreme drought Exceptional drought

March 29, 2022



March 26, 2024



U.S. Drought Monitor

Four Reasons You Should Care about California Snow
Union of Concerned Scientists | April 1, 2024 | José Pablo Ortiz Partida

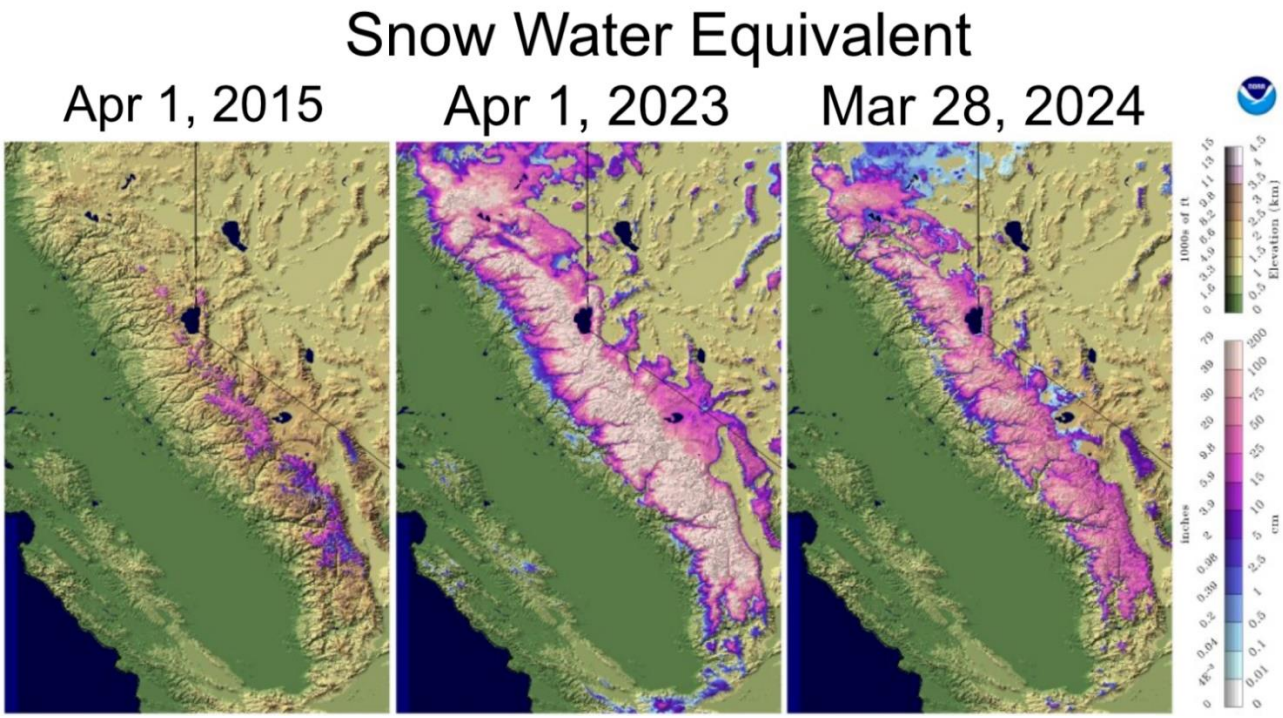
Footprints in the snow under a brilliant blue sky in Yosemite National ParkJ. PABLO ORTIZ-PARTIDA/UCS

Last week, I visited Yosemite National Park and walked along a gorgeous trail surrounded by snow-blanketed sequoia trees. Beyond the horizon of pine trees to the south lies the Sierra National Forest, and beyond the rocky horizon to the north lies the Stanislaus National Forest. Further beyond these national forests lies the rest of the expansive Sierra Nevada Mountain Range, spanning 400 miles.

Tomorrow, April 2nd, the Department of Water Resources (DWR) will perform the last open-to-the-media snow survey of the year. These seasonal snow surveys offer a health check-up for our water system. If you're a precipitation nerd, you can follow the livestream here.

The slow pace of snow at the start of this season worried water managers at first, but California has now exceeded 100% of the average for this time of the year.

Beyond this year's measurements, it's critical to consider what our snow levels mean for water management in a warming climate, and what needs to change so we can better prepare for the future.



Three comparative maps of snow water equivalent (SWE) across California on April 1 in 2015, 2023, and 2024, based on data from the National Snow Analysis by the Office of Water Prediction. The maps use color gradations to indicate the depth of snow in inches. Source: https://www.nohrsc.noaa.gov/nsa/

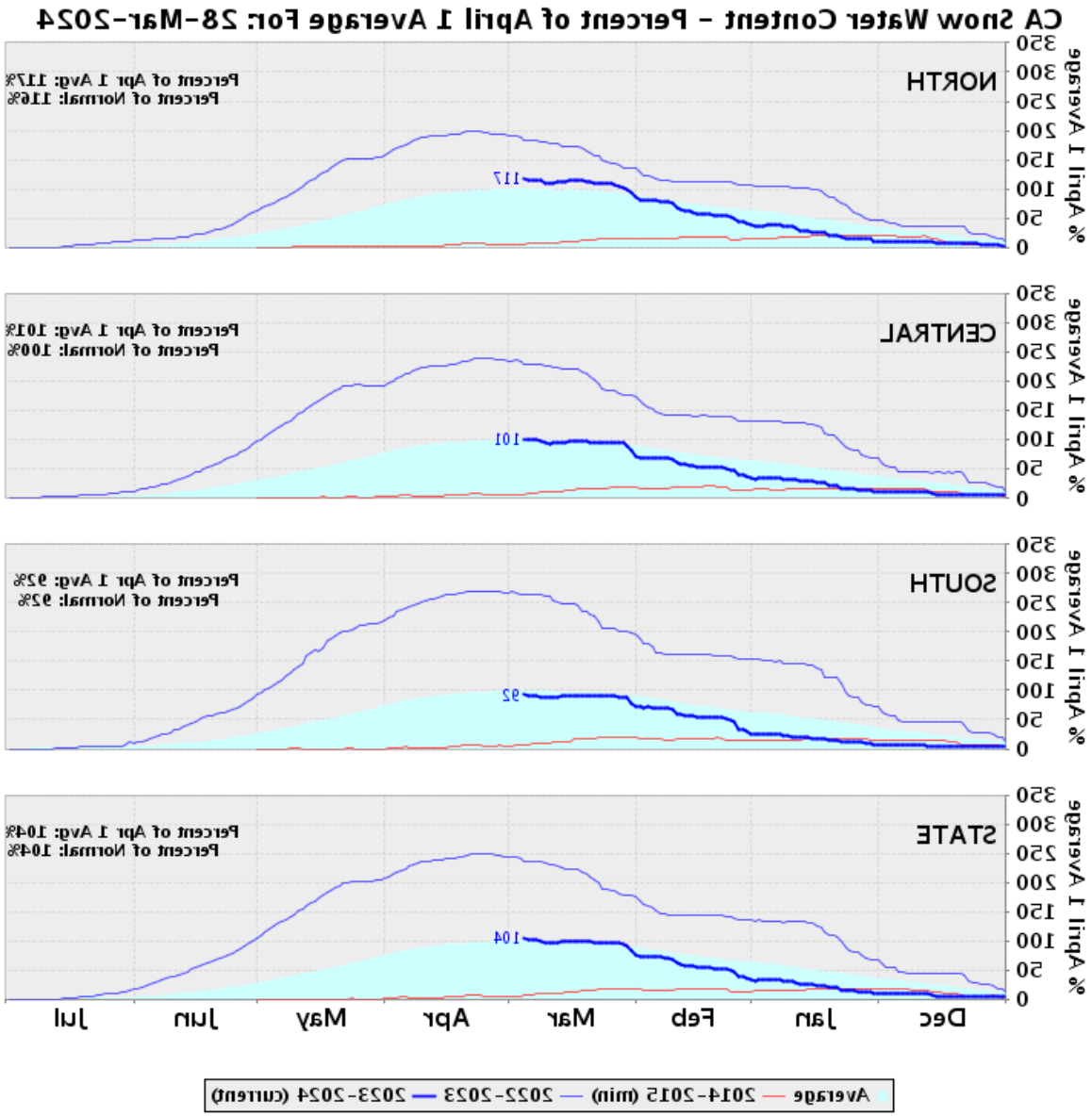
As I appreciated the beauty of Yosemite's snowy landscapes, I couldn't help but wonder what they would look like in 10, 20, or 50 years, considering the continued effects of climate change—including wildfire and drought—on the landscape. The scenery I saw before me is undergoing serious transformations, with critical implications for the whole state.

California snow survey ~~fun~~ facts

What are some maybe not-so-fun facts, and how are these surveys performed?

- In California, snow surveys help the state forecast and manage the year's water supply. Snow surveys not only measure the depth of the snow, but also its density to estimate how much liquid water there will be once it melts. This is known as Snow Water Equivalent (SWE).
- These snow surveys are part of the California Cooperative Snow Surveys (CCSS) program, which was established by the State legislature in 1929. Thanks to this program, there are more than 260 places throughout the state where either manual or electronic snow surveys take place.
- 2015 was the first year in which measurements going back to 1942 didn't register any snow on April 1. That day, Governor Brown signed an Executive Order mandating a 25% water use reduction across the state.
- Last year, in April 2023, the manual survey recorded 10.5 feet of snow depth and a snow water equivalent of 4.5 feet—over 200% above the average!

- When low atmospheric pressure, strong winds, and high-temperature conditions materialize in the mountains, some snow transforms directly into water vapor (without melting first). This is a process known as sublimation. In the Sierra Nevadas, this process can result in a 10% reduction of snow water equivalent. (This happened last year, which helped alleviate the dreadful forecast of even bigger flood flows, especially into Tulare Lake. Still, the Tulare Lake, dry since the early 1900s, reached a surface area as large as Lake Tahoe.)



Snow water content across Sierra Nevada Regions (North, Central, South) and the state overall, as a percentage of the April 1 average, spanning from December to July. The light blue shading indicates average. The red line is 2014-2015, the minimum historical snow water content. The thin blue line is last year, a record-breaking year in many places across the state. The solid blue line depicts the current year (2023-2024), showing a very close to average snow water content. Source: https://cdec.water.ca.gov/snowapp/swcchart.action

Beyond water supply, snow and rain also have other essential roles in California:

- In snow-abundant years, utilities produce more hydropower, which helps reduce fossil fuel consumption. However, in dry years, they rely more on the use of fossil fuels and nuclear energy.
- Farmers and farm managers often use snow survey information to select crop planting patterns, estimate groundwater pumping needs, and plan irrigation schedules.
- Similarly, reservoir operators apply these data to manage flood risks effectively, forecasting water inflows to maintain appropriate reservoir levels. This careful planning allows for sufficient water storage while balancing flood risk.

And if that wasn't enough, here are four more reasons why everyone in California should care about snow.

1. **It's a natural form of water storage that provides about one-third of California's water supply.**
   Our snowscapes are not just beautiful, but crucial for California's water supply. The Sierra Nevada region (including part of the Southern Cascade Mountains) is essential for California's ecosystems and communities as it acts as a natural water storage pool, holding snow throughout the winter. As temperatures rise during spring and summer, the snow melts and flows through rivers, feeding ecosystems and reaching California's major reservoirs like Shasta, Trinity, Folsom, and Oroville in the North; New Melones, Don Pedro, and McClure fed by the Central Sierra; and Isabella dam, among others fed by the Southern Sierra.

   The snow eventually melts and infiltrates into soils and aquifers across the state, resupplying soil moisture or natural groundwater storage systems. It also enters rivers, lakes, and reservoirs that serve different purposes, such as providing water for agriculture, supplying urban areas with drinking water (including large metropolitan areas like San Francisco and Los Angeles), producing hydropower, controlling salinity in the Sacramento-San Joaquin Delta, and even contributing to tourism and recreational opportunities. Overall, every year, the snowpack from the Sierra Nevada Region becomes part of the water that maintains ecosystems, supplies water to over 25 million people throughout the state, and sustains millions of acres of irrigated agriculture.

Fresh snow blankets the ground, rocks, and pine trees in Yosemite National Park. A stream of snowmelt flows in the landscape. That water eventually reaches the Merced River, which runs through Yosemite Valley. Photo credit: J. Pablo Ortiz-Partida.

2. **It's vital for California's agriculture and recreation economies.**
   Agriculture depends on a consistent and reliable water supply. Snowmelt is a major source of irrigation water: based on how much it snows each year, water managers forecast streamflow and surface water allocations for farmers so they can plan for the planting and watering of crops, which directly affects the agricultural economy. My colleague and friend Angel has written about California's outstanding agriculture economic performance, with the San Joaquin Valley alone generating a revenue of $37.1 billion in 2020. A contrasting and unjust reality is that agriculture often uses clean snowmelt water to irrigate crops, while rural underserved communities live with dwindling and polluted groundwater. This points to the need for California's conventional agriculture systems to be reformed and turned into sustainable agriculture. Such a process needs to consider economic, water, and social and environmental sustainability.

   Also, while agriculture in California represents only between 1% and 2% of the state's gross domestic product, food production in the state is very important for the whole United States. This responsibility justifies agriculture use of 80% of the water used in

California. However, it can't last. California needs to repurpose a significant surface of cropland, since we don't have enough water to sustain our current practices. That could translate into a great opportunity for the rest of the United States to work on local food production—local agriculture can supply up to 90% of the food needs in the country.

Snow is also essential for tourism, rafting, recreational fishing, and skiing industries and contributes to local economies. If you have ever visited a Lake Tahoe ski resort, you know how many people head to the slopes to enjoy the snowy views. Tourists help maintain local businesses by spending money on hotels, meals, gear, "I forgot to pack" warm socks, and recreational activities. Consequently, snow is not just a seasonal feature of the landscape: it's a key economic engine that supports businesses and mountain communities, making its preservation and management essential for the vitality of local communities.

3. **Too little snow is bad news for California's water supply; too much is a risk to public safety.**
   The balance between too little and too much snow in California underscores the delicate dance of decisions that ensure both dry season supply and public safety. Understanding snowpack accumulation and its snow water equivalent helps estimate flood risks associated with rapid melting or so-called rain-on-snow events. This information is critical for flood management and emergency preparedness, protecting people's lives and reducing the risk of damage to dams, levees, and other infrastructure.

   This scenario is further complicated by 19th century colonial alterations to natural floodplains, which historically served as nature's own flood management system. The conversion of these floodplains for agricultural use or urban development has stripped the San Joaquin Valley of its natural flood resilience, leading to increased vulnerability to flooding events.

   Some local groundwater sustainability agencies are encouraging farmers to capture flood waters to perform groundwater recharge in their farms, which can help mitigate floods in vulnerable communities while giving farmers credits for groundwater storage. Of course, to protect water quality near rural communities, it is very important to understand how the land was previously used in order to address potential toxic substances in the soil (fertilizers, pesticides, and other chemicals) that could be dragged into aquifers during recharge. As we learn from past mistakes, there are efforts to reconvert certain cropland areas to natural flood plains to reduce California's vulnerability to floods.

   California recently designated groundwater aquifers as "natural infrastructure," opening the door for funding to increase recharge while reducing flood risk. Also, research into forecast-informed reservoir operation (FIRO) is improving, and it can help resource managers be much more precise in reservoir management to store the right amount of water to guarantee flood protection and maximize water availability.

An inundated dairy and its buildings as well submerged farmlands. This was part of Tulare Lake last year (2023) after intense rains and snowmelt. Photo credit: J. Pablo Ortiz-Partida.

4. **Snow is an indicator of climate change, with an uncertain future**
   Rising temperatures lead to more precipitation occurring as rain and less as snow. Higher temperatures reduce soil moisture and increase evapotranspiration, sublimation, and faster snowmelt. These dynamics result in diminished snowpack and changes in runoff patterns with implications for the various sectors reliant on California's snowpack. As climate change poses increasing challenges to these sectors, the importance of adopting sustainable management and adaptation strategies is increasingly urgent. Such strategies ensure that snow continues to support economic activities while meeting environmental and community needs.

   Wildfires add another layer of complexity. While low-intensity wildfires are increasingly being recognized as natural ecosystem processes thanks to traditional ecological knowledge, some recent high-intensity wildfires are far from natural. These fires not only devastate landscapes but also significantly alter the snowpack dynamics. The destruction of vegetation through intense burning can lead to increased snow accumulation, as fewer trees are present to intercept the snowfall. This seemingly beneficial increase, however, is offset by the darkened, ash and dirt-covered snow, which absorbs more sunlight and accelerates melting. Post-wildfire landscape increases runoff and erosion and, in many cases, worsens water quality. These factors change snowmelt patterns and complicate decision-making for water managers.

   The compounding effect of wildfires on snow processes adds urgency to the need for comprehensive climate adaptation strategies. These strategies must account for both

the direct impacts of reduced snowfall and the secondary effects of wildfires on the hydrological cycle, ensuring the resilience of California's water resources in a changing climate.

Adding to the increased difficulty of future water management, Sierra reservoirs are increasingly misaligned with changing precipitation patterns, situated where snowfall is becoming scarce or melting prematurely in the season, which compromises their storage and supply capabilities.

Urban stormwater systems are another point of concern, particularly in areas where levees disconnected natural flood plains and where concrete and asphalt channel water into the streets, reducing the water that would naturally replenish soils and aquifers. This underscores the need for improved water capture and reuse strategies.

The San Joaquin Valley exemplifies the critical issue of groundwater over-extraction without adequate recharge, a practice that is unsustainable and jeopardizes both the quantity and quality of water resources. This systemic inadequacy calls for a comprehensive reevaluation and redesign of California's water infrastructure, ensuring it is resilient, adaptable, and capable of meeting the demands of a warming state with reduced snow and its consequent hydrological shifts.

A landscape showing the effects a couple of years after a forest fire, with burned trees standing against sparse pockets of snow in the ground—a reminder of fire's transformative power on ecosystems. Photo credit: J. Pablo Ortiz-Partida.

We need to act now to preserve the snow future

The snow in Yosemite and beyond the horizon in the rest of the Sierra impacts many of us in ways we may not realize. A future without snow is a future I don't want to imagine.

A future with reduced snow, however, is imminent, and California state and local agencies need to plan for it. For the rest of us, in California and beyond, every action taken to reduce heat-trapping gas emissions, especially a fast and equitable phaseout of fossil fuels, will contribute to mitigating the impacts of climate change and reducing the vulnerability of communities and ecosystems to current and future harms.

# # #

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Sierra Nevada snowpack ‘unusually normal’ and reservoirs are brimming as winter season winds down

California water supplies are in good shape, experts say, as more snow heads for the Sierra this weekend

Mercury News | March 30, 2024| Paul Rogers

Dimitris Sweeney, right, and his brother-in-law Cole Heer dig out their car along Skislope Way in Truckee, Calif., on Sunday, March 3, 2024. They were trying to head to Northstar California Resort to ski and snowboard. (Jane Tyska/Bay Area News Group)

As winter conditions wind down, the beginning of April is always the most important time for California’s water managers to take stock of how much snow has fallen in the Sierra Nevada.

This year, something unusual happened. After years of extreme drought and several very wet flood years, the Sierra snowpack, the source of one-third of the state’s water supply, is shockingly average this year: 104% of normal on Friday.

And more is on the way. The National Weather Service on Friday declared a winter storm warning for the Sierra, predicting 1 to 2 feet of new snow through Sunday. Chain controls went into effect on Interstate 80 Friday afternoon.

For a state where 11 of the past 17 years have been in severe drought, where massive, punishing storms last year brought the biggest snowpack since 1983 and waves of destruction along the coast,

and storms in 2017 caused $100 million in flood damage to downtown San Jose and nearly collapsed Oroville Dam, an ordinary winter is a godsend, experts said Friday.

“It’s about as normal as you can get,” said Jeffrey Wood, a meteorologist with the National Weather Service in Sacramento. “It’s what we hoped for. In recent years we’ve had extremes. This year is definitely an outlier, but in a good way. Enjoy the normal.”

The last time California had a winter this close to the historical average was more than a decade ago, in 2010, when the Sierra snowpack on April 1 was at 104%. By comparison, last year on April 1 it was 232%. The year before, just 35%.

Two years of ample snow and rain have wiped away drought conditions. Most of California’s big reservoirs are brimming.

They were already full from last year’s bounty and have been topped with storms this year. The largest reservoirs in California on Friday were a combined 116% of their average capacity for the end of March, with the two largest, Shasta, near Redding, and Oroville, in Butte County, at 91% and 87% full.

The conditions mean that cities will not impose water restrictions this summer.

“This is a usefully boring year,” said Jay Lund, a professor of civil and environmental engineering at UC Davis. “It will be useful if people use the lack of urgency to work on long-term preparations for both floods and droughts. That would be time well spent.”

The snowy February and March, along with healthy rain levels across the state, mean that California’s fire season this year could end up being another mild one.

“We might expect something similar to last year,” said Craig Clements, director of the San Jose State University Fire Weather Research Lab. “Below normal in terms of acres burned. More snow. More moisture. Higher soil moisture. And higher fuel moisture levels. Things can change if we get a big heat wave in August. But for now all the rain and snow have helped a lot.”

Last year, following the wet winter, 324,917 acres burned statewide, according to Cal Fire, well below the state average for the previous five years of 1.7 million acres and more than 90% less than the horrific fire year of 2020 when 4.2 million acres burned statewide.

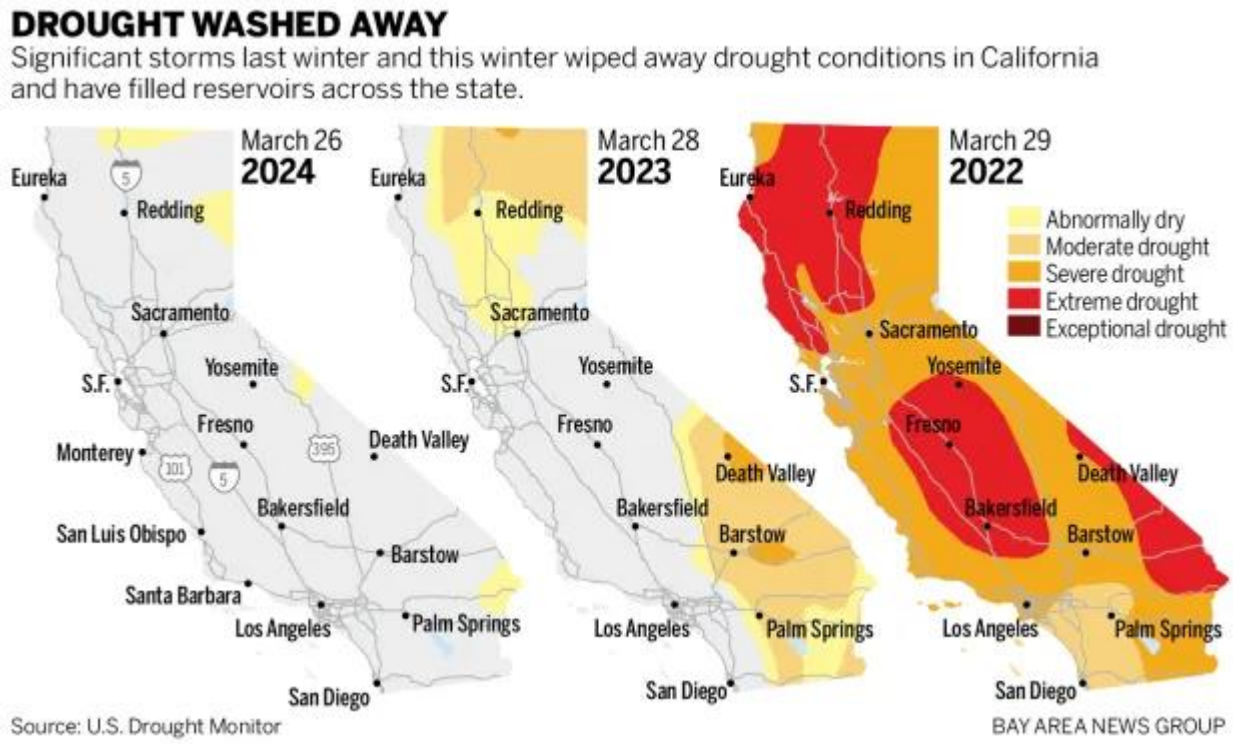
The shifting risk levels don’t mean that climate change isn’t happening, experts say. The Earth continues to warm, which makes droughts more severe. And that warming can cause winter storms to carry higher levels of moisture because more water evaporates from the ocean into them during hotter conditions.

But this year and last serve as a reminder that every year isn’t a wildfire Armageddon, Clements said.

“You are going to have some normal seasons,” he said. “You are going to have wet seasons.”

Few barometers of the state's changing water fortunes are as dramatic as the weekly reports from the U.S. Drought Monitor, put out by the U.S. Department of Agriculture, the National Oceanic and Atmospheric Administration, and the University of Nebraska-Lincoln.

At the end of March 2022, 100% of California was in a drought, according to the monitor. Water shortages were prevalent around the state. A year later, just 28% of California was in a drought — mostly near the Oregon state line and in the southeastern corner of the state. This week? None of the state is in drought.



Maps compare drought levels from 2022, 2023 and 2024

Early on it wasn't clear what this winter would bring. On Jan. 1, the statewide Sierra snowpack was just 21% of normal. But steady storms through February, and particularly in the first week of March, brought the turnaround as the Sierra was blasted with 8 to 10 feet of new snow in blizzards that closed ski resorts and blocked I-80 and Highway 50.

Lund, the UC Davis professor, who described this winter as "unusually normal, said California still has significant water challenges, particularly in agriculture. State officials and farmers need to do a better job capturing water from storms and diverting it to recharge groundwater, he said.

In other areas, such as the Tulare Basin in the San Joaquin Valley, groundwater has been so heavily over pumped for decades that some acres will need to be taken out of production, he said.

Gov. Gavin Newsom has pushed hard for construction of the largest new reservoir in California in 50 years, Sites Reservoir, a $4.5 billion off-stream project proposed for Colusa County that would divert water from the Sacramento River in wet years for use in dry years. This month, the project received $205 million from the Biden administration and now has more than 90% of its funding. Whether it can

break ground depends largely on if it can secure water rights later this year from the State Water Resources Control Board and overcome lawsuits from several environmental groups that say the water diversions could harm fish species in the Delta.

On Tuesday, state officials are expected to take a manual snow survey near Sierra-at-Tahoe ski resort. Friday's statewide totals are expected to increase from this weekend's storms.

"Winter is not over," said Wood, the meteorologist. "It's not abnormal to have an early spring system like this, and it's definitely not the end of potential wet weather for the area. We will get some significant snowfall out of this one."

J.J. Morgan clears snow on Church Street near the historic Truckee Hotel as snow continues to fall in downtown Truckee, Calif., on Sunday, March 3, 2024. (Jane Tyska/Bay Area News Group)

# # #

Newsom's water plan makes waves

Delta tunnel supporters, opponents respond to updated proposal

Daily Journal | April 4, 2024 | Aly Brown

An aerial view of a the Vogel Cache/Hass Levee on the southwestern side of the Lookout Slough Tidal Restoration Project in unincorporated Solano County. Fred Greaves/California Department of Water Resources

Gov. Gavin Newsom on Tuesday announced the release of the state's updated water plan, which garnered both support and criticism.

As he stood in the snow-packed Sierra Nevada for a press conference during the April snow survey at Phillips Station, Newsom said the new reality of climate extremes requires a new approach and elevated sophistication in terms of managing the water system.

"The water system in California was designed for a world that no longer exists," he said, referring to the drastic weather events that have occurred over the last decade, compared to 50 or 60 years ago.

"California is the size of 21 state populations combined. And, as a consequence, there's no one size that fits all. ... Focusing on local strategies and solutions is the framework, the backbone, of our strategies," Newsom said.

The plan cites three themes — addressing climate urgency, strengthening watershed resilience, and achieving equity — and seven objectives, along with recommendations on how to meet them. The objectives are to:

- Support watershed resilience planning and implementation;
- Improve resiliency of “backbone” state, federal and regional built water infrastructure;
- Improve resiliency of natural “backbone” infrastructure;
- Advance equitable outcomes in water management;
- Support and learn from tribal water and resource management practices;
- Support and increase flexibility of regulatory systems; and
- Provide guidance and support continued resources for implementation of actions toward water resilience.

California Farm Bureau president Shannon Douglass commended the plan.

“We’re encouraged that the plan highlights infrastructure projects to capture, store and convey water supplies,” Douglass said. “We’re also pleased that it seeks to reduce permitting burdens for projects that support water resilience, including through groundwater recharge and habitat restoration.”

The California Farm Bureau works to protect family farms and ranches on behalf of more than 26,000 members statewide and as part of a nationwide network of 5.8 million members.

However, many felt that the state’s updated water plan supports problematic infrastructure projects that will harm the Sacramento-San Joaquin Delta Estuary. The Delta Conveyance Project, also known as the Delta tunnel, is cited as a recommendation to achieve the second objective of improving resiliency of water systems.

Chris Shutes, California Sportfishing Protection Alliance executive director, said the update had not changed much from the draft, in which numerous environmental groups left comments highlighting their concerns pertaining to the Delta Conveyance Project.

The current version of the project would construct two water intakes in the North Delta and one underground tunnel. The system would pull water from the Delta and connect it to the Bethany Reservoir on the California Aqueduct, before delivering it to homes and farms in Central and Southern California. The single-tunnel project replaces the twin-tunnel California WaterFix project, which was abandoned in 2019. DWR certified the project’s environmental impact report in late December 2023. State officials and proponents say the Delta Conveyance Project will modernize the state’s aging water system, which is currently not equipped to capture water amid climate change conditions or to withstand large earthquakes. Supporters include agricultural entities and Southern California water agencies. But opponents, including some tribal nations and environmentalists, have raised numerous issues with its design, such as the impact to the Delta’s ecosystem, businesses and urban and cultural communities.

Shutes called the plan's support of developing water at the expense of the environment "fundamentally unsound."

"The Plan Update's support of massive new diversions of water, such as Sites Reservoir and the proposed Delta tunnel, to feed an already over-allocated water budget is like using a home equity line of credit to pay the mortgage," Shutes explained. "While such a strategy makes resources available in the short term, it only increases the long-term debt."

In an October letter to the state Department of Water Resources, Shutes — along with representatives of 10 environmental and wildlife advocacy groups — highlighted faulty DWR data and excessive water consumption to be critical problems with the plan.

Gov. Gavin Newsom during an April snow survey at Phillips Station.Gov. Gavin Newsom's office

Recognizing the need for food, the groups provided proposals for agricultural land-use diversification to reduce water demands, including incentives for land retirement in drainage-impaired lands in the Central Valley along with investments for alternative crops and wetland restoration in the Sacramento-San Joaquin Delta. They also proposed alternatives to the tunnel to include conservation and recycling.

Bob Wright, counsel for Sierra Club California, which also signed the letter, couldn't believe the DWR would first approve the project without conducting a cost-benefit study for public review and comment. He felt there was a general lack of public transparency.

"It's a very clever scheme to transfer billions of dollars upwards from homeowners and renters to the contractors who get to build this thing," Wright said, noting that draining the Delta amid climate

changes could result in a tunnel that no longer has enough water to send south. “The tunnel could become what we call a ‘stranded asset.’”

He said the tunnel could destroy the Delta estuary, turning the area into a stagnant pond with negative health impacts to endangered species and humans.

For a project that will pull water directly from the Delta, Wright wanted to know how the DWR could certify an environmental impact report that doesn’t consider the impacts on surface water.

“There really is no environmental impact report on this massive project. There’s a document they call an environmental impact report,” Wright said. “However, it says right in chapter five in the first paragraph it does not evaluate, under the California Environmental Quality Act, the impacts of the project on surface water.”

John Buse, senior counsel for the environmental group Center for Biological Diversity, agreed with Newsom that California’s water system was designed for a world that no longer exists.

“But the big storage and conveyance projects he is pursuing are also from a completely bygone era,” Buse said. “Building a gigantic tunnel below the Delta to send Northern California’s water south is essentially the same environmentally disastrous scheme that has been floated and rejected for 50 years. And large surface storage projects are inefficient boondoggles.”

Government leaders assert that California’s water system, which has historically depended on the Sierra Nevada snowpack melting into rivers and dams, needs a modernized way to capture water from atmospheric rivers and storms brought on by climate change.

California Natural Resources Agency Secretary Wade Crowfoot joined Newsom and the DWR snow survey team at Phillips Station on Tuesday and noted that water extremes are not an anomaly, they are the future.

He shared that since the start of Newsom’s administration, water agencies have come together to establish a broad portfolio of actions needed to adjust to the changing conditions and invest billions into adapting the water systems.

“We need to confront this changing reality, and confront it we have,” Crowfoot said.

# # #

Gov. Newsom announces updated water plan amid above-average Sierra snowpack

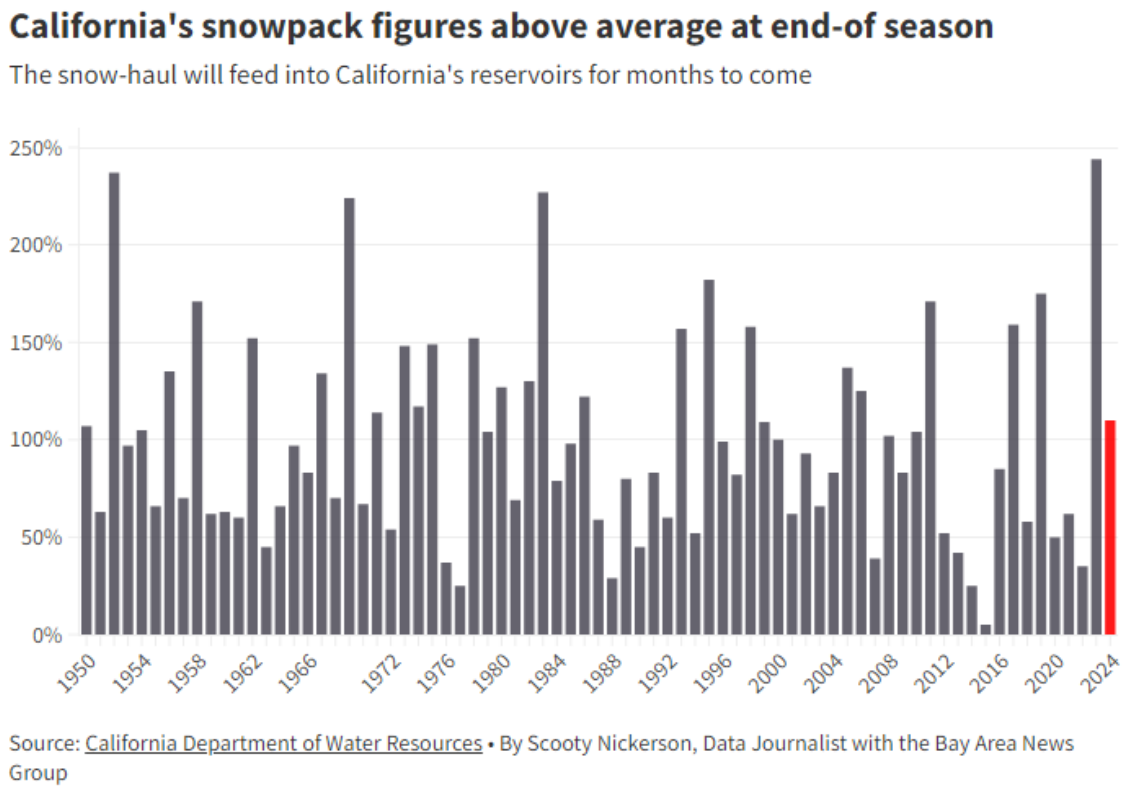
'Take a deep breath … but don't quadruple the amount of time in your shower'

Mercury News | April 2, 2024 | Scooty Nickerson

Gov. Gavin Newsom tosses a snowball after the California Department of Water Resources Snow Surveys and Water Supply Forecasting Unit conducted the fourth media snow survey of the 2024 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 April 2, 2024. (Fred Greaves / California Department of Water Resources)

Sporting snowshoes and stylish shades, Gov. Gavin Newsom on Tuesday trundled around a summit south of Lake Tahoe with state water officials to unveil a "roadmap to resilience" for the state's fickle water supply and to confirm good news from an army of sensors scattered throughout the Sierra: California's end-of-season snowpack haul is blessedly above normal.

The crucial April reading clocked in at 110% of normal, state water officials said Tuesday — a harbinger of a reliable water supply during the upcoming dry summer months. Last year, the April snowpack reading hit an astounding 244% of normal, but the previous three years' snowpacks were all considerably below normal as California suffered through drought conditions.



That “weather whiplash” driven by climate change was a reminder that there is no time to get greedy, Newsom said, even with many of California’s biggest reservoirs brimming with higher-than-usual water levels providing yet more good news about the water outlook for 2024.

“You can take a deep breath this year, but don’t quadruple the amount of time in your shower,” Newsom warned Californians from Phillips Station near Echo Summit. “Consider that this time next year, we may be in a different place.”

“Extremes are becoming the new reality, and that new reality requires a new approach,” the governor said as he touted a five-year update to the California Water Plan, vowing that the Golden State would not sit idly by as “victims of fate” in the face of the oncoming climate crisis.

Newsom’s plan puts a fresh focus on a variety of new water sources, from major infrastructure projects such as the controversial Delta tunnels project to send water under the Sacramento-San Joaquin River Delta to Southern California, and the Sites Reservoir, a $4.5 billion project in Colusa County that would become the largest new reservoir anywhere in California in the past 50 years.

“We’re fast tracking them in the new permitting regime that we promoted,” Newsom said.

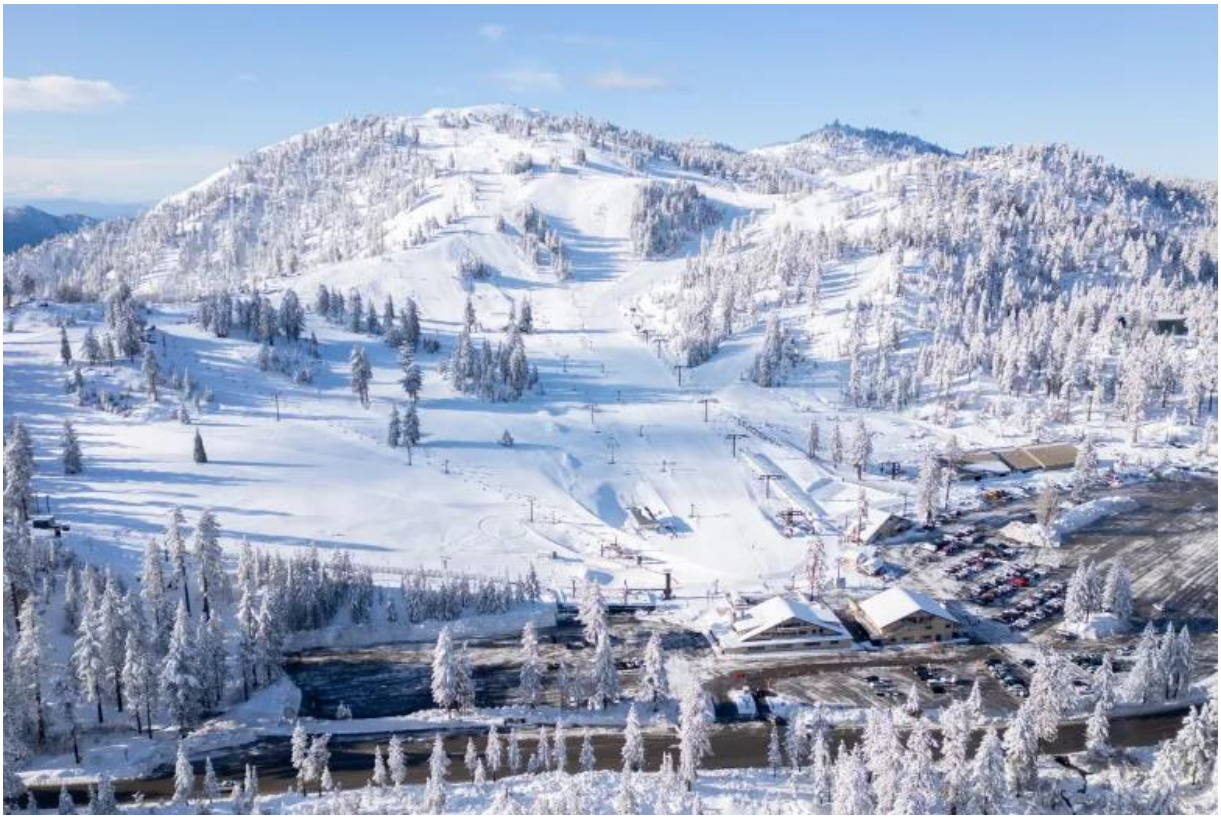
(Left to right) California Department of Water Resources Director Karla Nemeth, California Natural Resources Agency Secretary Wade Crowfoot and Gov. Gavin Newsom join the snow survey team for fourth media snow survey of the 2024 season is held at Phillips Station in the Sierra Nevada. The survey is held approximatelyâ¯90 miles east of Sacramento off Highway 50 in El Dorado County.â¯Photo taken April 2, 2024. (Andrew Nixon / California Department of Water Resources)

The plan also calls for restoring ecosystems to improve the resilience of “natural infrastructure” such as aquifers and floodplains along rivers and streams. It also for the first time includes a chapter on Native American water management, which calls for state policies that improve “Tribes’ ability to access their sacred sites, protect their cultural resources, and support their water rights.”

Water experts say that Newsom’s newly released water plan could be useful guidance to local water agencies as they think about how to develop their projects, but it’s important to not over-inflate its significance. Most of the real action when it comes to building new projects takes place at the local level.

Jay Lund, a professor of civil and environmental engineering at UC Davis, said that even California’s biggest new push for expanding its water supply — the planned construction of the Sites Reservoir — came from a local initiative, not a state push.

“The (state’s) fundamental mission is not building huge (water) infrastructure,” Lund said. “Most water management is done locally, and I think they (the state) understand it.”



In this photo provided by Big Bear Mountain Resort, fresh snow covers the ski resort in Big Bear Lake, Calif., on Monday, April 1, 2024. The area has received two feet of new snow since Saturday with skiing expected to continue well into April. (Lee Stockwell/Big Bear Mountain Resort via AP)

Newsom pointed to climate change as a major challenge to the state's ability to keep water supplies steady throughout the year. One troubling development is that the elevation at which snow accumulates in the Sierra, known as the "snow line," has risen by about 500 feet due to climate change, experts say. And a Bay Area News Group analysis last year found that the average Sierra snowpack dropped several inches since the 1950s as the climate has warmed.

Even this year, when our total snowpack topped normal, our day-to-day weather patterns were still highly erratic, toggling from very dry conditions early in the season to a snow bonanza in March.

This year, the state hit the water jackpot. The above-average snowpack balance strikes a happy medium between too much snow, which can lead to flooding as the state's frozen reservoir melts, and too little snow, which could plunge the state back into drought conditions.

California Department of Water Resources Snow Surveys and Water Supply Forecasting Unit Water Engineers Andy Reising, right, and Anthony Burdock conduct the fourth media snow survey of the 2024 season at Phillips Station in the Sierra Nevada. Gov. Gavin Newsom, center, and California Natural Resources Agency Secretary Wade Crowfoot watch the process. The survey is held approximately 90 miles east of Sacramento off Highway 50 in El Dorado County. Photo taken April 2, 2024. (Fred Greaves / California Department of Water Resources)

As to what comes next for California's water supply, California Department of Water Resources State Climatologist Michael Anderson said that it's still hard to predict if the state is in for more accumulation this spring or if things will peter out from here.

The National Weather Service recently issued a snow advisory from 11 p.m. Wednesdays through 11 p.m. Friday for the Sierra as forecasts have begun to pick up on new storms expected to dump several inches of fresh snow to many parts of the Sierra, according to Sacramento National Weather Service meteorologist Eric Kurth.

"If people do have weekend plans (in the Sierra), just be aware, even through 11 p.m. Friday, that there could be some chain controls and slow travel," Kurth said.

Some areas near Interstate 80 South could get five to 10 inches of snowfall, and south of Highway 50 near Lake Tahoe could get six to 12 inches, Kurth said. The unusually cold temperatures forecast for the approaching storm system could mean that snow flurries pop up even at lower elevations in the Sierra foothills.

# # #

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Despite wet year, fish protections limit allocations
Ag Alert News | April 3, 2024 | Caleb Hampton

State and federal water providers have increased promised allocations after accounting for recent storms that improved snowpack and reservoir levels.

The California Department of Water Resources doubled the amount of water it expects to deliver this year to most contractors that rely on the State Water Project, increasing the allocation for water users south of the Sacramento-San Joaquin River Delta from 15% to 30% of requested supplies. Those north of the delta are expected to receive 50% of their allotment, while Feather River Settlement Contractors will get their full allocation.

The U.S. Bureau of Reclamation, which manages the Central Valley Project, increased allocations for south-of-delta agricultural water users from 15% to 35% of their contracted allotment and from 75% to 100% for those north of the delta. The revised allocations followed a new snow survey measurement released March 1 and a spring runoff forecast released March 8. As of April 1, statewide snowpack was 104% of average for that date. A final water allocation for the year, accounting for springtime precipitation, is expected in May or June.

In their initial allocations, water agencies are “cautious about not overcommitting water supplies that may not materialize,” said Chris Scheuring, senior counsel for the California Farm Bureau, adding that water allocations may still increase.

“We’re optimistic,” he said. “Hopefully, the season finishes out with another blast or two of rain, and we hope everybody is able to get full deliveries in a decent year like this one.”

Agricultural water users in the San Joaquin Valley voiced frustration at receiving roughly a third of their contracted allotment during a year with above-average precipitation, following historic rain and snow events last year that replenished California’s reservoirs.

“This is very disappointing and not because our expectations are unrealistic,” said Allison Febbo, general manager for Westlands Water District, a major water provider that supplies farms in Fresno and Kings counties. “The broad public discussions surrounding water management in California have led us to believe that higher levels of delivery would be possible in better hydrologic years, such as this one.”

Allocations for farmers and other contractors south of the delta were limited by the presence of protected fish species near pumping facilities, which resulted in reduced pumping from the delta into the San Luis Reservoir. The reservoir serves state and federal water systems.

“While the series of storms in Northern California improved the water supply outlook, a number of factors, particularly anticipated regulatory constraints throughout the spring, continue to limit the water supply allocation for south-of-delta agriculture,” said Karl Stock, regional director for the Bureau of Reclamation.

DWR director Karla Nemeth said the state agency was doing its best “to balance water supply needs while protecting native fish species.”

The threatened and endangered fish species found near pumping facilities include delta smelt, winter-run chinook salmon and steelhead trout. Regulations designed to protect those species have made it hard for San Joaquin Valley farmers to anticipate water supplies from year to year, Scheuring said.

“Oftentimes, we find that species-related restrictions hamper the flow of water from north to south,” he said. “It is not so much a supply problem as a regulatory problem and, some would say, an infrastructure problem.”

DWR emphasized the need for the Delta Conveyance Project, which would move water south from the delta through a 45-mile tunnel. The $16 billion project would “make it possible to move more water during high flow events while helping fish species like steelhead trout avoid threats posed by current pumping infrastructure,” the department said.

In December, the water agency released a final environmental impact report, approving the project. The tunnel still needs buy-in from water users that would fund the project, and it faces challenges from opponents trying to block it in court.

Febbo said the inability to move water south through the current system has consequences for crop production and the people who make their living from agriculture.

“Inadequate and unpredictable water supplies have a direct impact on the communities and farms in the San Joaquin Valley and their ability to feed the nation and the world,” she said. Febbo called the most recent allocation “a missed opportunity to celebrate what appears to be good outcomes for fisheries and to also provide water supplies that are essential for the San Joaquin Valley, an area already struggling with economic challenges and rising unemployment.”

Nicole Nicks, general manager at Westside Transplant in Merced County, which supplies tomato transplants to farmers across the state, said last month that growers in the Westlands Water District were hesitating to plant processing tomatoes because of uncertainty around water supplies.

While tomato acreage is largely dictated by the supply needs of canneries, which are contracting less tonnage this year, Nicks said water supplies also play a role.

“It was kind of shocking,” she said last week, that the allocation for farmers south of the delta was not increased more. A larger revision, in line with the state’s water supplies, might have prompted some growers to order more tomato transplants, she said.

“Depending on how things go,” Nicks said, “they could still change the allocation. But by that time, it’s kind of too late.”

Westlands Water District said it conducted an analysis that found steelhead trout and winter-run chinook salmon “are expected to trigger further restrictions on delta pumping into June,” which is after farmers of many crops will have made their cropping decisions for the year.

“The hydrology this year is good,” Scheuring said. “If we have folks that are getting shorted, that’s a problem.”

# # #