MONTECITO WATER DISTRICT
MEMORANDUM

SECTION: **5-D**

DATE: **JANUARY 28, 2025**

TO: **BOARD OF DIRECTORS**

FROM: **GENERAL MANAGER**

SUBJECT: **QUARTERLY WATER SUPPLY UPDATE**

RECOMMENDATION:

Information only.

DISCUSSION:

Overview

The District's 3-year water supply outlook remains favorable, meaning sufficient water supplies are available to meet projected customer needs over the next three years assuming drought conditions persist. This favorable outlook is attributable to above average rainfall having been received locally and, in many locations statewide in Water Years (WY) 2023 and 2024. In contrast, much of the State, including Santa Barbara County has experienced abnormally dry conditions over the first quarter of WY 2025, which began on October 1, 2024. Locally, rainfall totals through December 31, 2024 are at near historic low levels.

The US Drought Monitor indicates a continued worsening of drought conditions statewide through January 2025, with about three quarters of the state in some stage of drought. Drought conditions in Santa Barbara County vary from abnormally dry to severe, with the South Coast and most of the Santa Ynez River watershed being under severe drought conditions. (Figure 1).

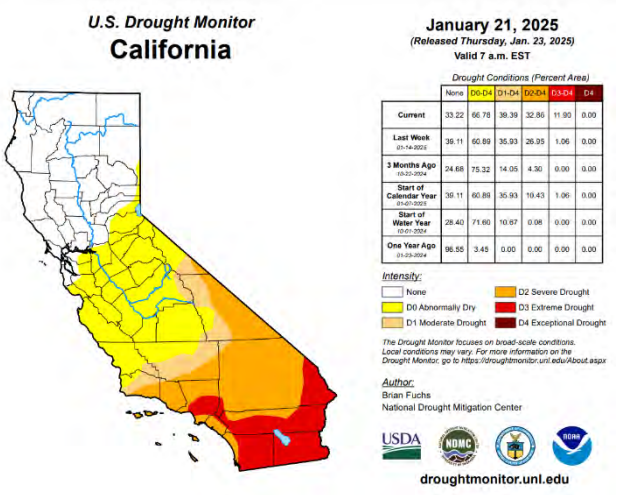


Figure 1: US Drought Monitor Map

According to the National Weather Service Climate Prediction Center, as of January 24, 2025 La Niña conditions are present and there is a 59% chance they will persist through April 2025. Past El Niño and La Niña conditions have been highly variable, from extremely wet to extremely dry conditions locally and statewide, and therefore the anticipated impacts of this prediction are uncertain.

The District's 3-year water supply outlook continues to indicate adequate water to meet projected customer water demand through Water Year (WY) 2027 without projected water shortages, or the need for imported water (i.e. SWP and supplemental). Total planned (or budgeted) water production for WY 2025 is 4,321 acre feet (AF), based on the average demand over the prior 5-years. As of December 31, 2024, actual water use is trending about 6% above budget. This upward trend in water use is attributable to the dry conditions experienced thus far this winter.

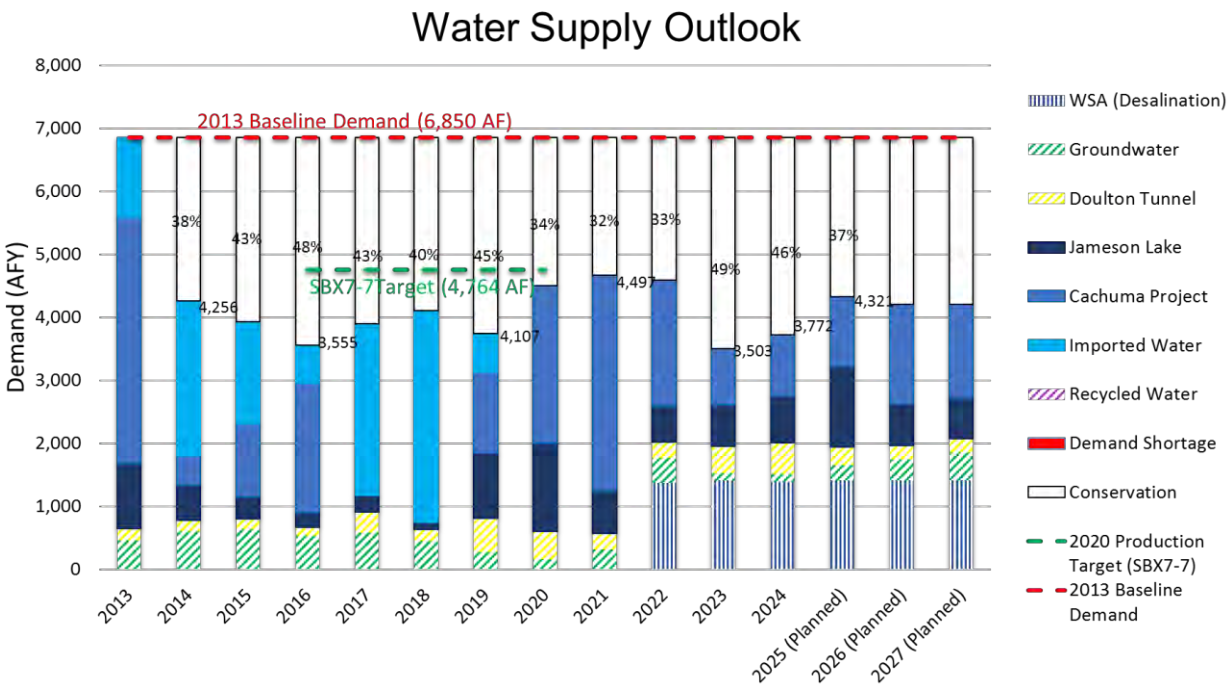


Figure 2: 3-Year Water Supply Outlook

Despite the favorable water supply outlook, efficient water use remains necessary to extend the availability of water supplies and to bolster long-term water supply reliability. Many water use efficiency-related initiatives continue including water use efficiency rebates, development of water budgets, and utilization of automated metering infrastructure (AMI or smart meters). Additionally, the evaluation of various long term water supply initiatives continue including the need for additional local rainfall independent water supplies, local water banking, and the optimal use of surplus State Water Project supplies.

Update on Water Sources

The **Cachuma Project**, a United States Bureau of Reclamation (USBR) owned and operated surface water reservoir and a critical local surface water supply for the District, reached 100% of current full storage capacity in early 2024. As of December 31, 2024, the Cachuma project is at 89% of its current full storage capacity. The Cachuma Project has historically supplied about 40% of the District's annual water supply but this has reduced to between 25-30% since the acquisition of desalination. This reduction in reliance on the Cachuma Project enables this critically important supply to be preserved for later use, such as during dry periods or droughts. The District's full Cachuma Project contractual entitlement is 2,651 AF. On October 1, 2024, USBR issued a 100%

allocation for WY 2025. Total Cachuma Project water deliveries planned for WY 2025 are 1,111 AF.

As of December 31, 2024, the District's has 4,691 AF of Cachuma Project supplies available, which includes 2,651 AF of current year allocation and 2,040 AF of carryover water (Cachuma Project allocation from a prior water year). Carryover water is at an increased risk of loss to spill this winter due to the elevated lake level. The District's 3-year water supply outlook projects a 100% Cachuma Project allocation through WY 2027 with reduced availability thereafter.

Jameson Lake, another critical local surface water supply for the District, is at 91% of the current full storage capacity (4,587 acre feet) as of December 31, 2024. Jameson Lake is a District owned and operated facility that serves as a longer-term drought supply with reduced deliveries available over an extended period. Projected annual deliveries are consistent with the District's 2020 modified rule curve for the reservoir, which plans for up to 2,000 acre feet of deliveries when the lake is full, reducing to between 500 to 800 acre feet per year thereafter as the lake level declines. The purpose of increased deliveries when the lake is full is to draw down the level from full to create available storage capacity to capture runoff, if any, in subsequent years. Total planned water deliveries from Jameson Lake for WY 2025 are 1,252 AF. Actual deliveries over the first quarter of WY 2025 are 25% above planned deliveries at 417 AF due to increase customer demand, a result of ongoing dry conditions.

Doulton Tunnel is a 2.2-mile tunnel through the Santa Ynez Mountains allowing for the passage of Jameson Lake deliveries to the South Coast for delivery to the District's service area. The tunnel itself experiences water intrusion (water entry from the surrounding soil) which contributes to water deliveries from Jameson Lake. Tunnel intrusion is groundwater and is highly dependent on hydrology. Deliveries have historically ranged from 50 gallons per minute (gpm) to 1,500 gpm, but typically average between 150 gpm to 350 gpm. As of December 31, 2024, tunnel intrusion is trending at about 225 gpm and is expected to continue to gradually decrease until meaningful rainfall totals are received. Planned deliveries from Doulton Tunnel for WY 2025 are 330 AF.

Desalination deliveries began in January 2022, with the District receiving 117.4 AF of water per month from the City of Santa Barbara, in accordance with the September 2020 *Water Supply Agreement* (WSA). These deliveries are made possible by the City's operation of its desalination facility. This local, rainfall independent water supply is nearly 100% reliable and serves as a baseline supply for the District, helping to mitigate the impact of ongoing and future regulatory, environmental, and climatic challenges affecting other water sources. Deliveries, pursuant to the WSA occur irrespective of hydrologic conditions. Under most circumstances, any portion of the monthly delivery not accepted by the District, such as when demands are low, is lost. The District's 3-year water supply outlook projects regular monthly deliveries of 117.4 AF. Planned deliveries of desalinated water for WY 2025 are 1,409 AF, or approx. 33% of total annual production.

Groundwater serves as an important drought supply for the District. During average or wet conditions, the District rests its potable wells, allowing for increased groundwater basin recovery. During below average or dry periods, the District increases groundwater production from the basin. The District has six potable and six non-potable active groundwater wells capable of pumping a

combined total of approximately 700 acre feet per year (AFY), depending on groundwater levels. The District's 3-year water supply outlook projects groundwater production to be between 100 and 450 AFY through WY 2027, depending on hydrologic conditions. Planned groundwater deliveries for WY 2025 are 220 AF, which is primarily non-potable production.

The **State Water Project** (SWP) is a supplemental surface water source supplying water from Northern California. The District's full Table A entitlement is 3,300 acre feet, which includes a 300 acre foot drought buffer. The Department of Water Resources reviews SWP water availability monthly and releases allocation updates, with the final annual allocation typically released around May 1. As of December 31, 2024, the SWP Table A allocation for 2025 is 20% or 660 AF. With favorable local water supply conditions following the 2022/23 and 2023/24 winters, SWP supplies continue to be surplus to the District's needs and deliveries are not anticipated through WY 2027.

The District participates in the **Semitropic Groundwater Banking and Exchange Program.** During average or wet conditions, the District stores surplus SWP water in a groundwater basin located in the Central Valley of California for future use during below average or dry conditions. Participation in this program provides a guaranteed right to withdraw or recover up to 1,500 AFY of District-stored water and store up to 4,500 AF at any time. The District's contract with Semitropic allows for the storage of water in excess of the stored water right of 4,500 AF if Semitropic has available capacity within their groundwater banking program. To date, Semitropic banking program as a whole is at approx. 50-60% of capacity and has never in its history reached the program storage capacity limit. The District maximized storage of surplus SWP water in Semitropic through the end of 2024. As of December 31, 2024, the District has 5,782 AF of its surplus SWP water stored in Semitropic and available for use. Storing surplus SWP supplies in Semitropic bolsters the District's drought supplies and reduces the risk of its loss due to conditions such as spill at the SWP San Luis Reservoir. The storage of additional surplus SWP supplies in Semitropic in 2025 will be reassessed by the Board in early to mid 2025 and will depend on numerous factors including the hydrologic conditions over remaining winter, the final SWP allocation determined by DWR around May 1, and whether the District will be permitted to transfer or sell its surplus SWP supplies pursuant to its 2024 Water Management Program agreement between the District and Homer LLC.

Customer Water Use (Demand)

After nearly a year of trending below planned levels, Customer water use over the first quarter of WY 2025 is trending slightly above budget (see Figure 3). As of December 31, 2024, Customer water use is 6% above budget, which is attributable to the dry conditions thus far this winter. Annual budgeted water sales align with the 5-year average customer use or approx. 3,950 AF.

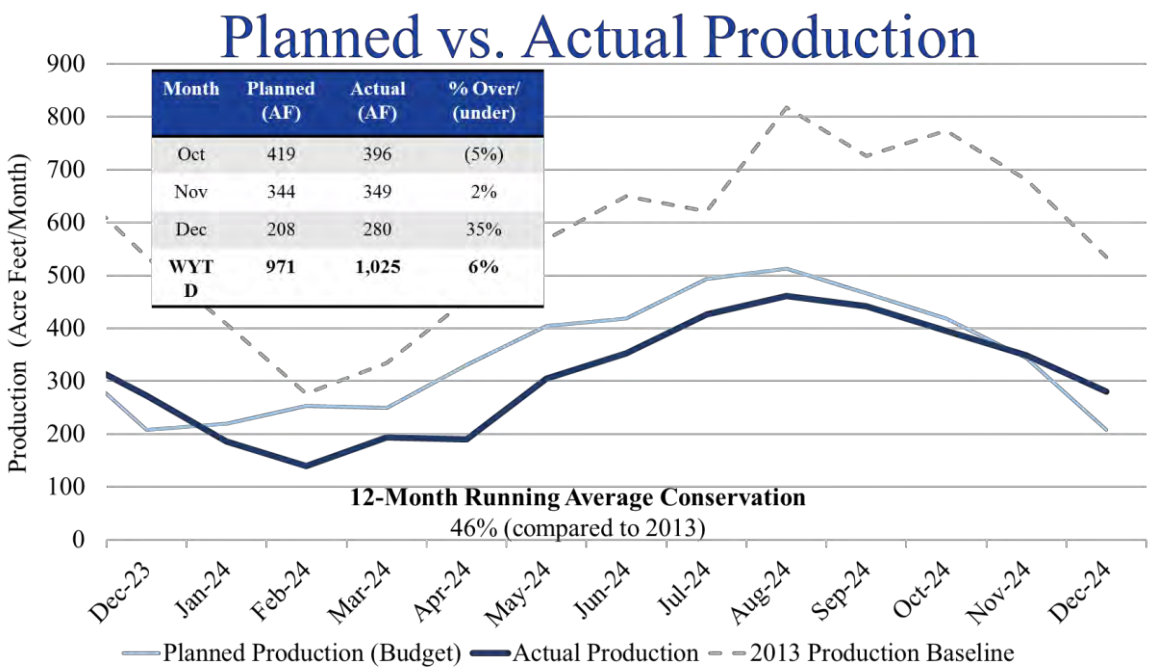


Figure 3: Actual vs. Planned Water Production

In December 2022, the District adopted its first *Water Use Efficiency Plan* (WUEP) which is a long-term plan targeting permanent changes in customer use water, consistent with the State's goal of *Making Conservation a California Way of Life*. The Plan includes a variety of recommended actions to encourage and help achieve a permanent long-term reduction in water use. Implementation of the WUEP continues with water conservation program such as water efficiency rebates and other actions. More information is available on the District's website.

In 2018, the California Legislature enacted two key policy bills – Senate Bill 606 (SB 606) and Assembly Bill 1668 (AB 1668) – to implement a new framework for long-term water conservation and drought planning for water suppliers. AB 1668 and SB 606 build on the State's ongoing efforts *Making Conservation a California Way of Life*, including Senate Bill X7-7, creating a new foundation for long-term improvements in water conservation and drought planning. SB 606 and AB 1668 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards. Among other provisions, the legislation includes establishing urban water use objectives (UWUO) and long-term standards for efficient water use that apply to urban retail water suppliers. The UWUO is an estimate of aggregate efficient water use from the previous year based on adopted water use efficiency service area characteristics for that year. All UWUO requirements became effective in 2024, and compliance must be achieved by 2027. An urban supplier that does not meet its UWUO may be required by the State to enact policies and projects that result in a reduction in water use. The District's reporting indicates it is currently in compliance with its UWUO.

Supporting compliance with the UWUO legislation, in October 2022, the District initiated the development of water budgets. A Water Budget is a property specific monthly water use target that promotes efficient indoor and outdoor water use while preserving existing landscaping and

semi-rural atmosphere of the community. Water budgets account for seasonal changes in water use such as irrigation in winter versus summer and provide flexibility to customers to choose how they use water on their property while discouraging water waste and excessive use. The development of water budgets is complete and expected to be rolled out for customer use in March 2024.

Water Supply Outlook

Based on available information, including assumed below average hydrologic conditions in WY2025 through WY2027, the District's 3-year water supply outlook indicates adequate water to meet planned customer use without anticipated water shortages or the need for imported water. Despite the favorable water supply condition, efficient water use remains essential to the long-term reliability of the District's water supply. Demand management is necessary to ensure alignment with planned use continues.

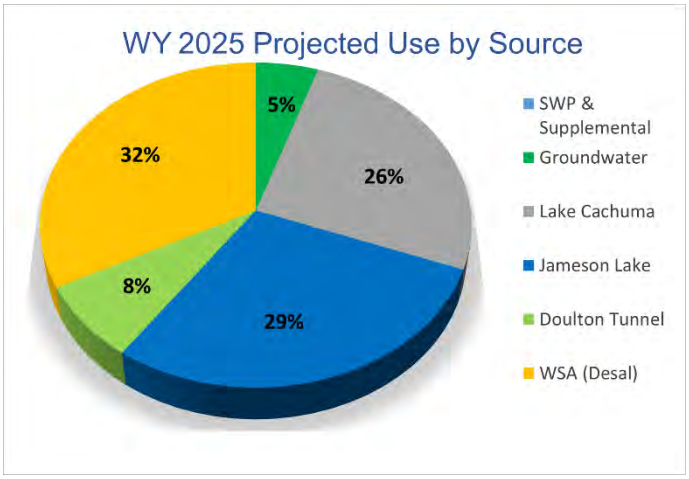
Focus continues to be on efficient water use, in particular the implementation of the *2022 Water Use Efficiency Plan* and associated water conservation rebates, the rollout of property specific water budgets, and utilization of automated metering infrastructure (AMI or smart meters). These actions will provide Customers and the District with tools to effectively manage water use, including avoiding water waste and loss.

Additionally, the District continues to evaluate other means of bolstering water supply reliability including the acquisition of new sources of local reliable water supplies and additional local groundwater banking.

Since 2018, the District has evaluated the feasibility of implementing a **Recycled Water** project. The District's *2023 Enhanced Recycled Water Feasibility Study*, prepared in collaboration with the Montecito Sanitary District (MSD), recommended a regional indirect potable reuse (IPR) project involving multiple special districts and benefiting multiple urban water purveyors and groundwater basins. The project proposed to treat secondary wastewater effluent from the MSD Wastewater Treatment Plant (WWTP), implement advanced treatment at the MSD WWTP site, and convey purified water south to the Carpinteria Groundwater Basin for injection. The District would recover the injected water either through supply exchanged with the Carpinteria Valley Water District or direct pump back to the District's distribution system. In September 2023, the District was selected for a $1M grant through the USBR WaterSmart: Water Recycling and Desalination Planning Program to fund preliminary design (30% design) and environmental review for this project. Unfortunately, capital costs for public works projects have increased significantly since 2021 due to extraordinary inflation and other factors. This has resulted in an estimated 40% increase in the projected cost of the District's contemplated IPR project. Due to cost increases and a reduction in available State and Federal funding programs, at its March 25, 2024, meeting, the District's Board of Directors placed the recycled water project on hold until further notice including forgoing the USBR WaterSMART Planning Grant. If additional planning and construction grant funding opportunities become available and/or the anticipated unit cost of advanced treated water decreases making a recycled water project financially viable, the District will consider reinitiating a recycled water project.

In addition, the District continues its evaluation of potentially storing surplus surface water in the Montecito and Carpinteria Groundwater Basins. Separate **Groundwater Banking** evaluations are currently underway and expected to be completed in the early 2025.

Primary sources of water supply planned for use to meet customer demands in WY 2025 include the Water Supply Agreement with the City of Santa Barbara (desalination), Jameson Lake and Doulton Tunnel, and the Cachuma Project. Drought supplies including groundwater, and banked water stored in the Semitropic will remain in reserve for future use.



The District continuously evaluates water supply conditions and the need for additional supplement water and/or demand-management measures to ensure water supply availability over a three-year planning period and beyond.

ATTACHMENTS

1. Quarterly Water Supply Update Presentation

Item 5-D

Quarterly Water Supply Update

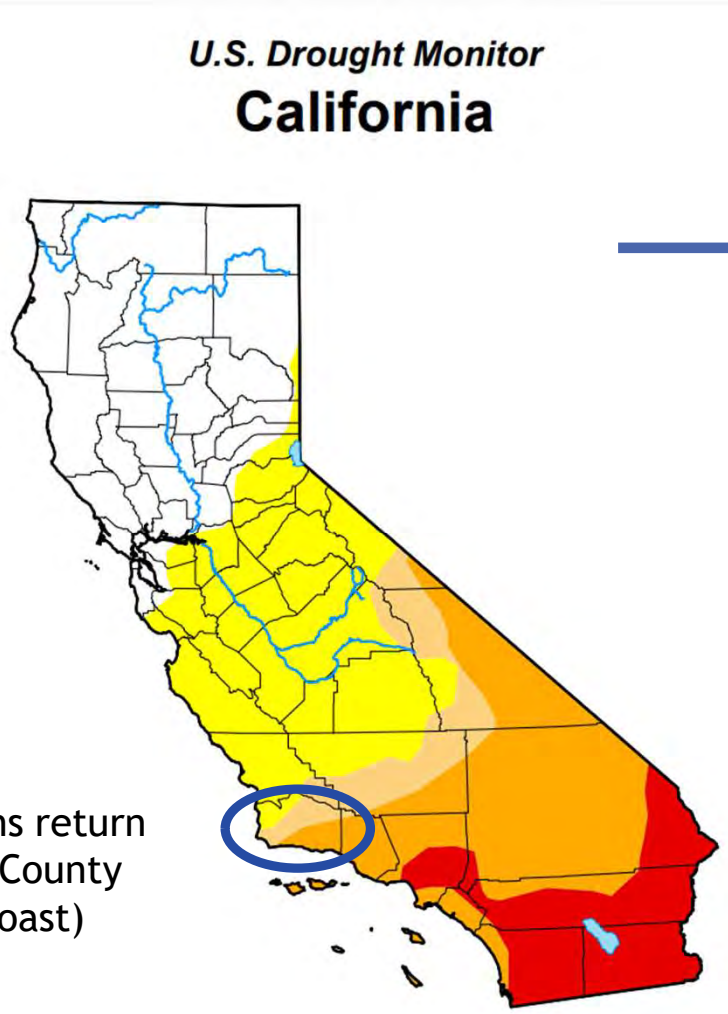
Meeting of the Board of Directors

January 28, 2025

Outline

1. Hydrologic Conditions
2. Water Use Trends
3. Water Supply Status
4. Water Supply Outlook
5. Supporting Initiatives

Drought conditions return to Santa Barbara County (Severe – South Coast)



U.S. Drought Monitor

California

January 21, 2025

(Released Thursday, Jan. 23, 2025)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	33.22	66.78	39.39	32.86	11.90	0.00
Last Week 01-14-2025	39.11	60.89	35.93	26.95	1.06	0.00
3 Months Ago 10-22-2024	24.68	75.32	14.05	4.30	0.00	0.00
Start of Calendar Year 01-07-2025	39.11	60.89	35.93	10.43	1.06	0.00
Start of Water Year 10-01-2024	28.40	71.60	10.67	0.08	0.00	0.00
One Year Ago 01-23-2024	96.55	3.45	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

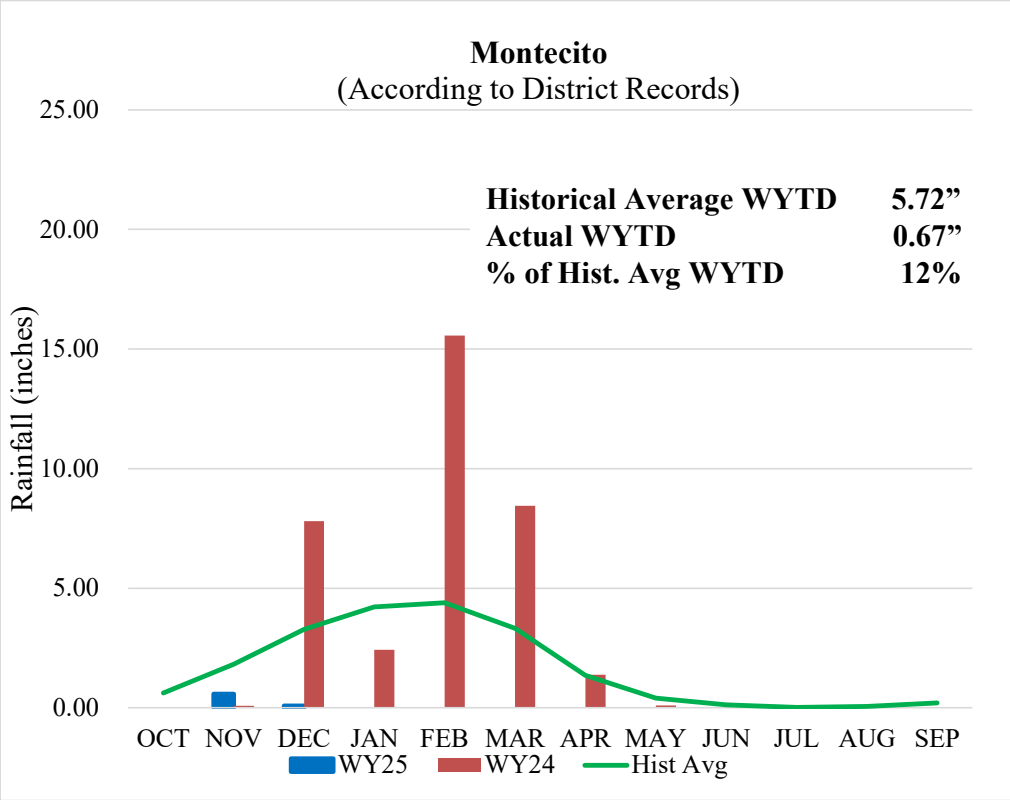
Author:

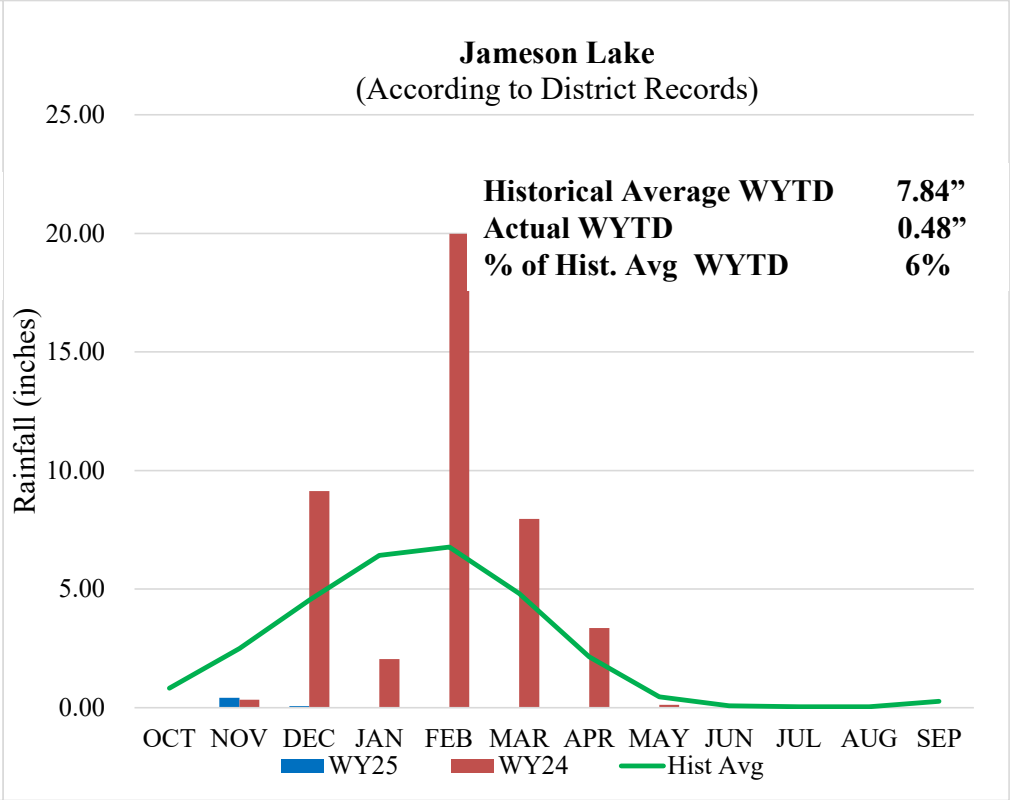
Brian Fuchs

National Drought Mitigation Center

droughtmonitor.unl.edu

Rainfall

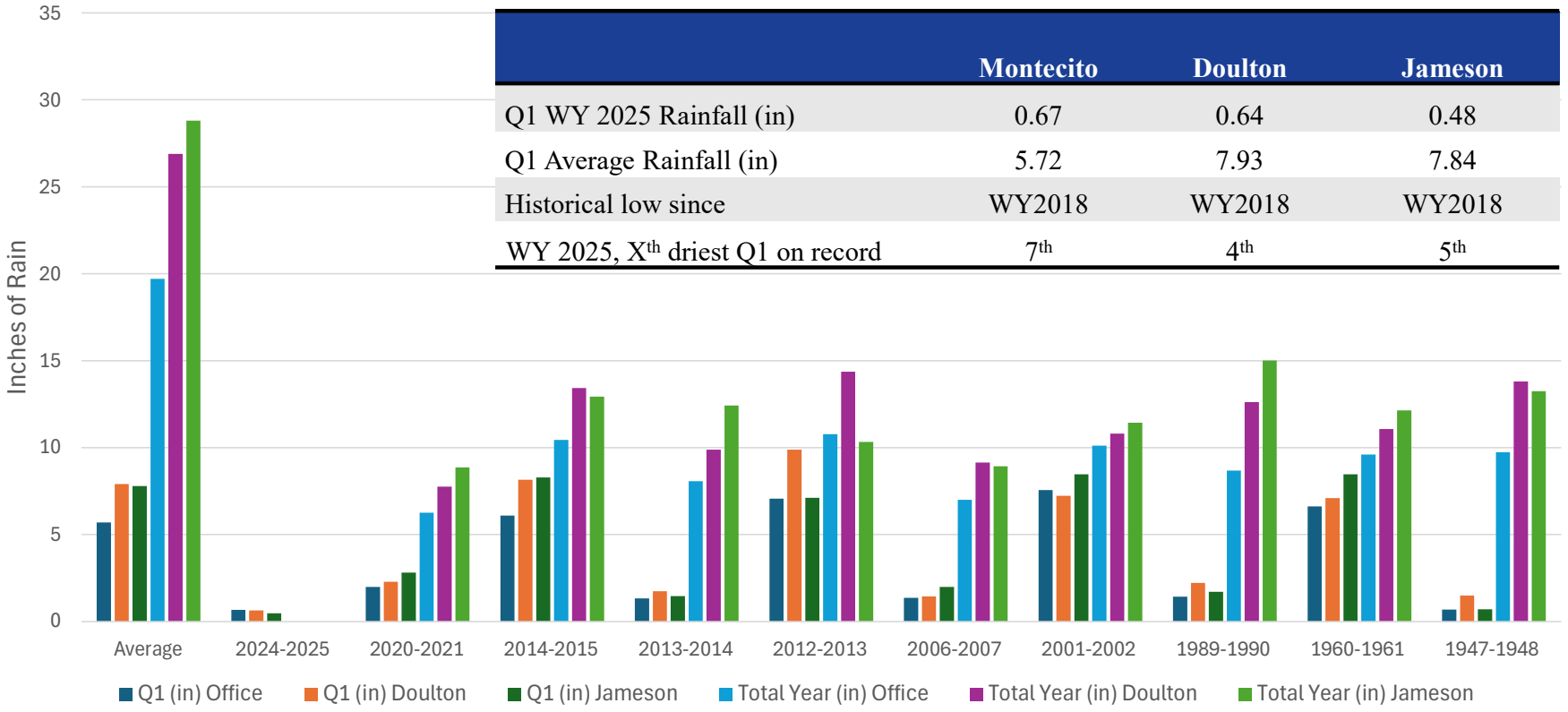

Montecito
(According to District Records)
Historical Average WYTD 5.72”
Actual WYTD 0.67”
% of Hist. Avg WYTD 12%
Rainfall (inches)
25.00
20.00
15.00
10.00
5.00
0.00
OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
WY25
WY24
Hist Avg


Jameson Lake
(According to District Records)
Historical Average WYTD 7.84”
Actual WYTD 0.48”
% of Hist. Avg WYTD 6%
Rainfall (inches)
25.00
20.00
15.00
10.00
5.00
0.00
OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
WY25
WY24
Hist Avg

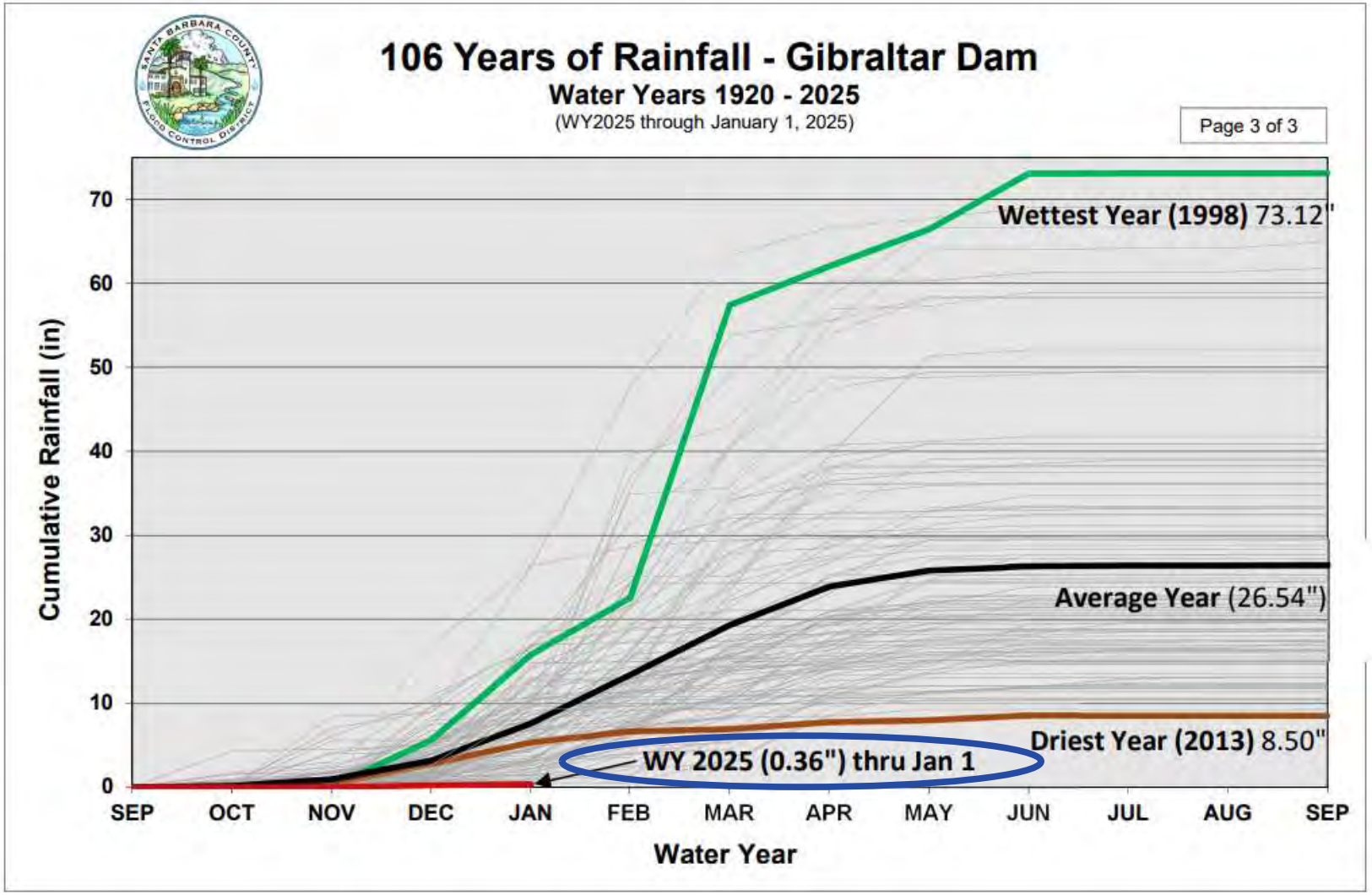
Rainfall

Q1 Comparison to Prior Drought Years

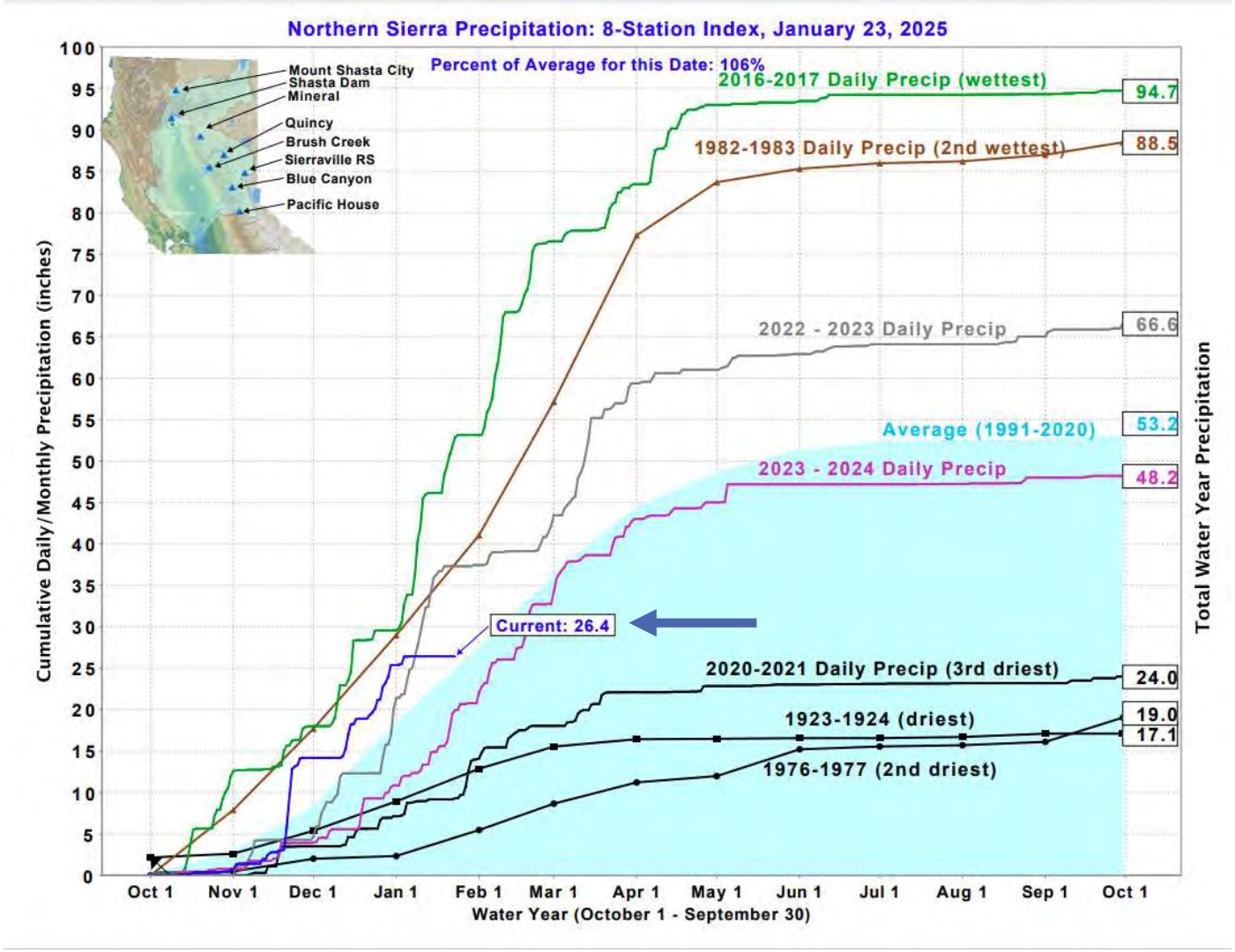
	Montecito	Doulton	Jameson
Q1 WY 2025 Rainfall (in)	0.67	0.64	0.48
Q1 Average Rainfall (in)	5.72	7.93	7.84
Historical low since	WY2018	WY2018	WY2018
WY 2025, Xth driest Q1 on record	7th	4th	5th



HYDROLOGIC CONDITIONS - REGIONAL



HYDROLOGIC CONDITIONS – NORTHERN CALIFORNIA



HYDROLOGIC CONDITIONS – NORTHERN CALIFORNIA

CURRENT REGIONAL SNOWPACK FROM AUTOMATED SNOW SENSORS

% of April 1 Average / % of Normal for This Date

NORTH	
Data as of January 23, 2025	
Number of Stations Reporting	27
Average snow water equivalent (Inches)	15.2
Percent of April 1 Average (%)	58
Percent of normal for this date (%)	105

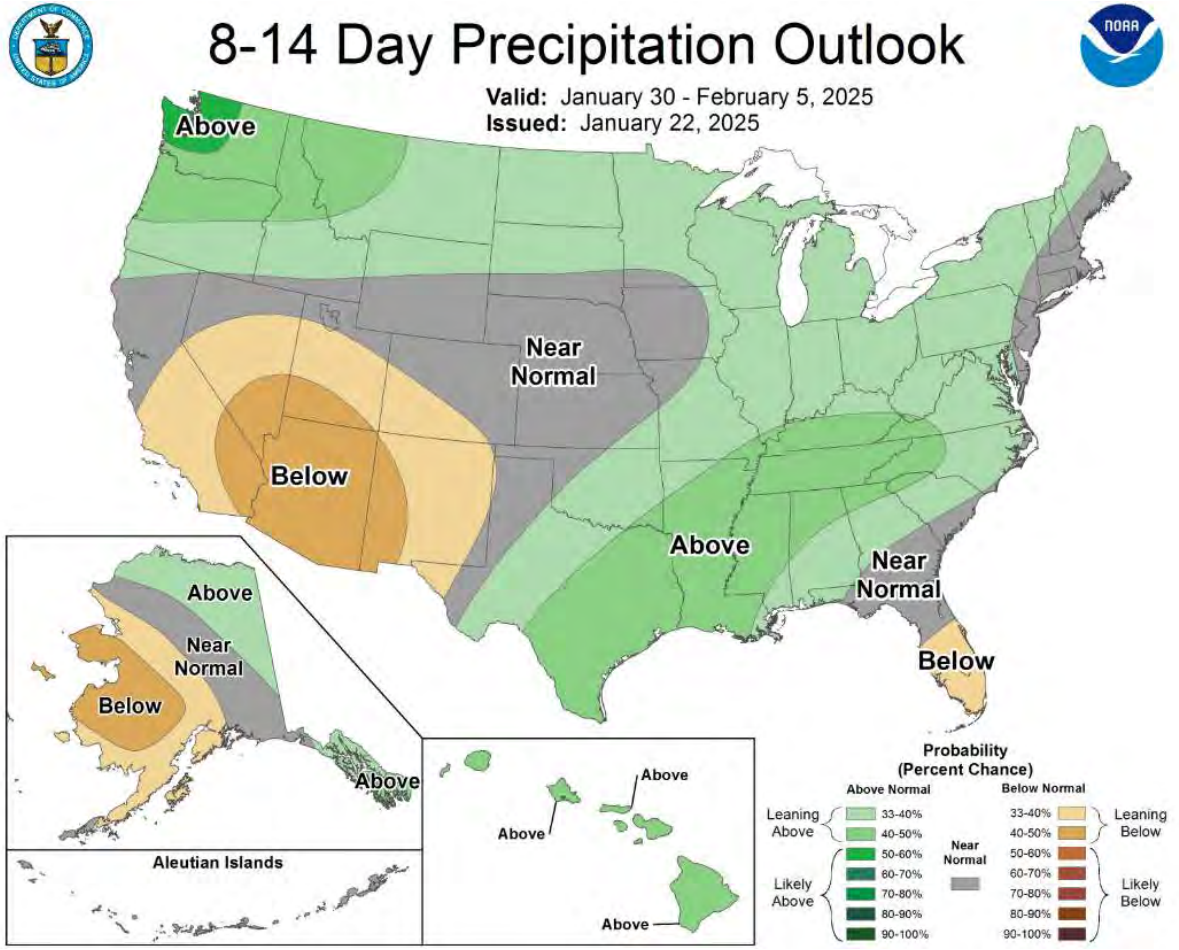
CENTRAL	
Data as of January 23, 2025	
Number of Stations Reporting	50
Average snow water equivalent (Inches)	10.1
Percent of April 1 Average (%)	37
Percent of normal for this date (%)	66

SOUTH	
Data as of January 23, 2025	
Number of Stations Reporting	20
Average snow water equivalent (Inches)	7.0
Percent of April 1 Average (%)	30
Percent of normal for this date (%)	54

STATE	
Data as of January 23, 2025	
Number of Stations Reporting	97
Average snow water equivalent (Inches)	10.9
Percent of April 1 Average (%)	41
Percent of normal for this date (%)	73

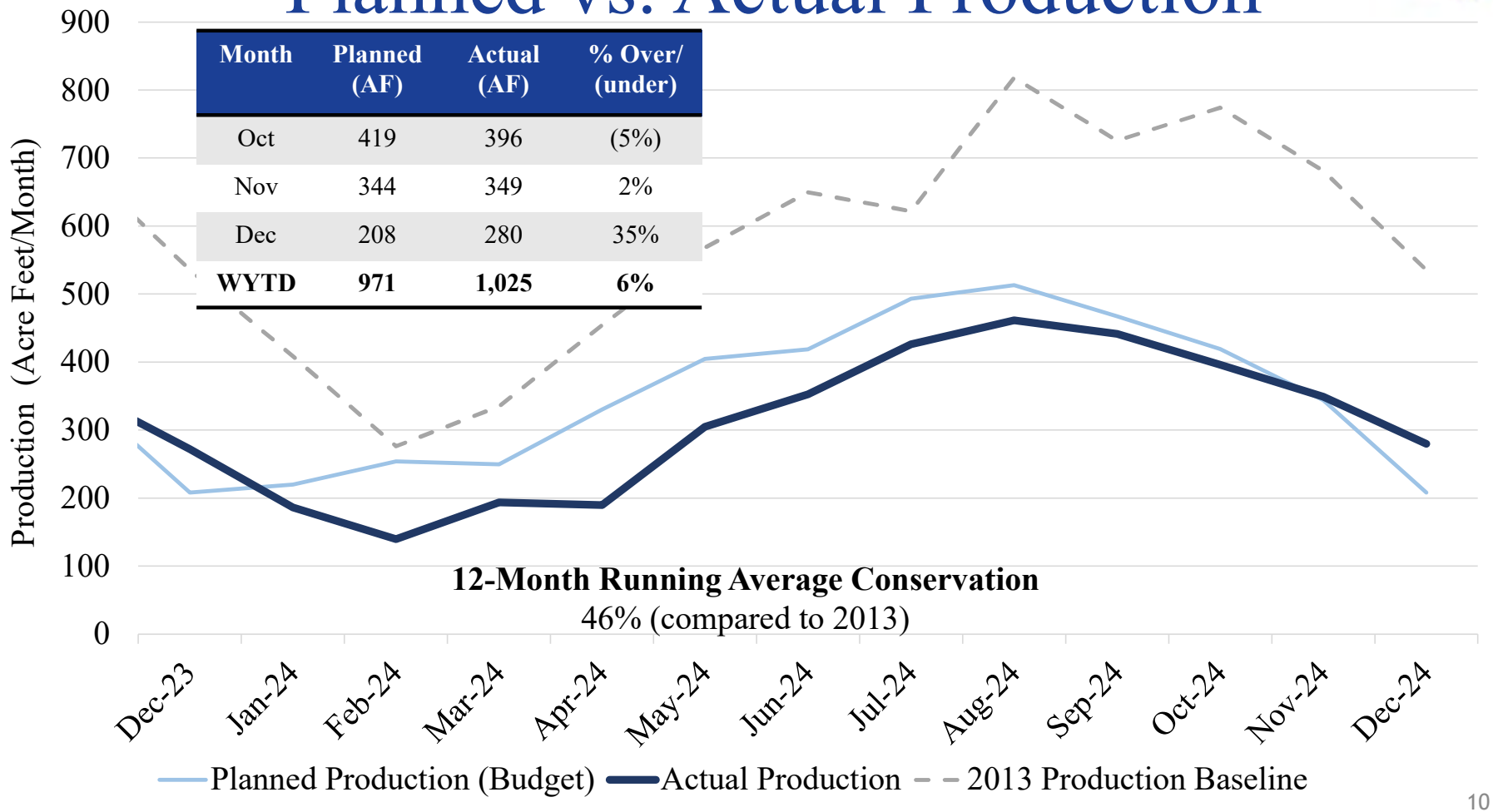
Statewide Average: 41% / 73%

NWS Prediction



Planned vs. Actual Production

Month	Planned (AF)	Actual (AF)	% Over/ (under)
Oct	419	396	(5%)
Nov	344	349	2%
Dec	208	280	35%
WYTD	**971**	**1,025**	**6%**



Cachuma Project

As of December 31, 2024

1. 89% (171,701AF) of full storage capacity
2. Water Available in Cachuma

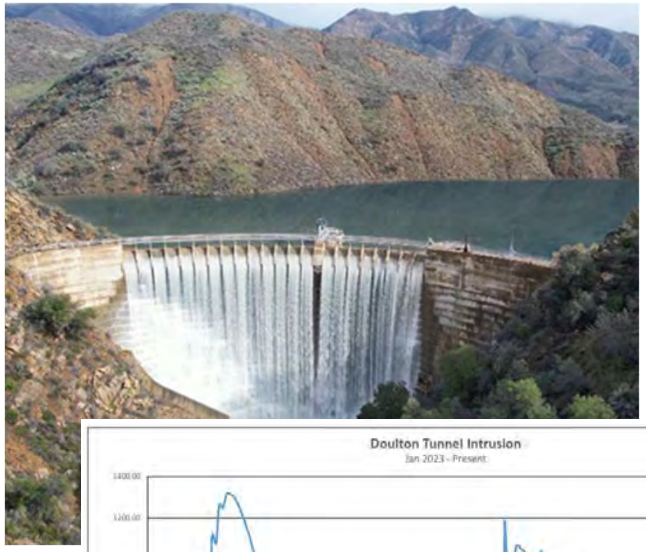
• WY24 allocation + ID1 Exch.	2,040 AF
• SWP/Supplemental	0 AF
Subtotal (Sept 30)	2,040 AF
• WY25 allocation	2,651 AF
Total	**4,691 AF**

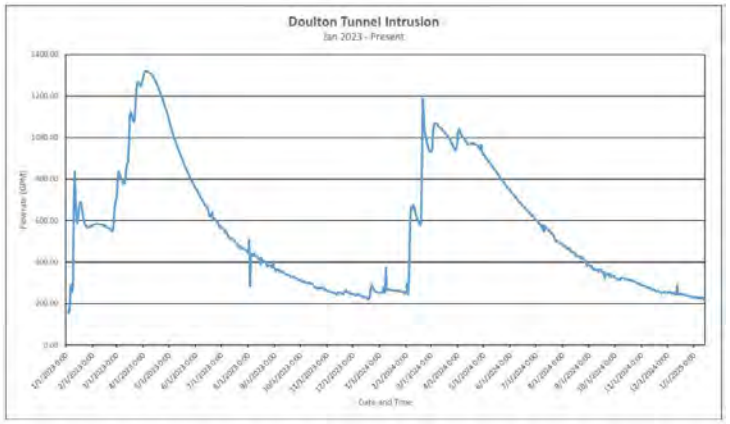
3. Elevated spill risk 2024/25 winter due to near full reservoir condition
4. Projecting 100% allocation next 2 to 3 years

* Data obtained from County of Santa Barbara Flood Control District – *Rainfall and Reservoir Summary*

Jameson Lake

As of December 31, 2024





1. Current storage 4,160 AF (91% of current capacity)
2. Maximizing deliveries
   - Pursuant to modified rule curve
   - Average 130 AF/mo thru Q1 WY
3. Water quality remains excellent; organic loading low
4. Doulton Tunnel Intrusion (225 gpm or 30 AFM)

Desalination

As of December 31, 2024

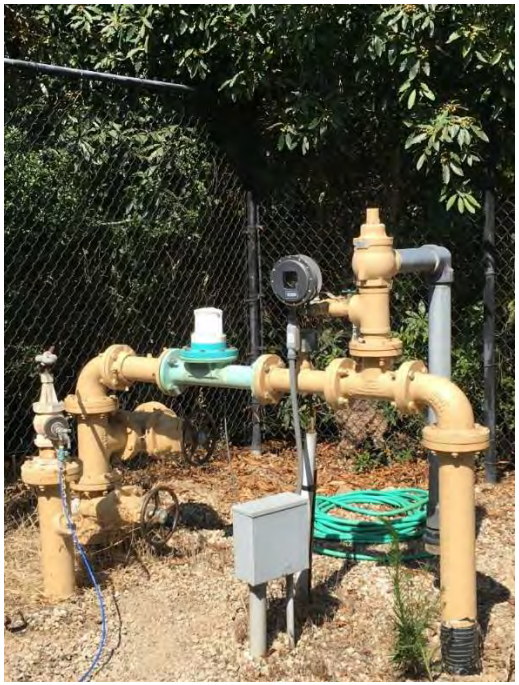
1. 2020 Water Supply Agreement with City of Santa Barbara
   - 50-year water supply contact
   - Contracted amount 1,430 AFY
   - deliveries occur irrespective of hydrologic conditions
   - deliveries commenced January 1, 2022
2. 117.38 AF delivered monthly
3. Full Desal Plant Shutdown occurred Aug 14, 2024
   - Intake Pump Failure
   - Notice of Relief Claim received Nov 13, 2024
   - Plant returned to operation on Dec 3, 2024

City of Santa Barbara, Charles E. Meyer Desalination Facility

Groundwater

As of December 31, 2024

1. Basin recovery continues following two consecutive above average wet winters
2. Potable wells not in use; allowing for increased basin recharge
3. Planning operation of one well; rotate potable wells to ensure operable status, and water quality meets standards
4. Evaluation of groundwater injection continues
5. Groundwater Management (Montecito GSA)
   A. GSP adopted in May 2023 and DWR review remains pending
   B. GSP implementation: well registry, GW monitoring, Annual Reporting
   C. Upcoming Meetings
      - Strategic Planning Committee – February 3
      - Finance Committee – February 4
      - Board of Directors – February 26



Paden Well

Imported Water

As of December 31, 2024

1. State Water Project (SWP) Water
   a. 2025 Table A Allocation 20% (currently)
   b. SWP remains surplus; No planned deliveries in 2025
   c. SWP Water Accounting

• 2025 Table A allocation is 20%	660 AF
• Art 56 Carryover Water (as of 1/1/25)	0 AF
Total	660 AF

2. Supplemental Water- Not needed through WY2027

Stored Water

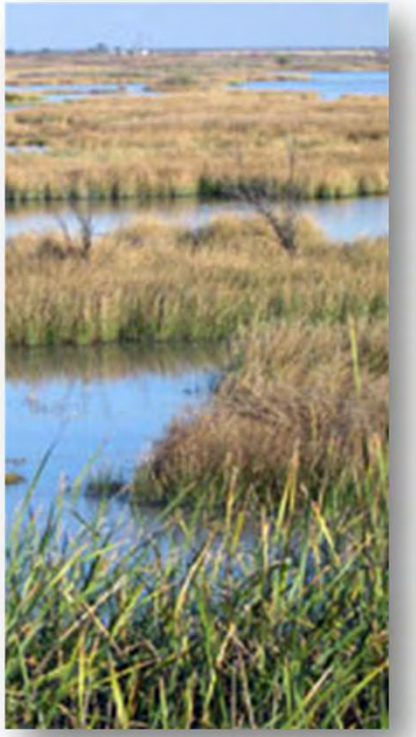
As of December 31, 2024

Semitropic Groundwater Banking & Exchange Program

a. General terms of participation
   - 2nd priority right to bank up to 1,500 AFY
   - 1st priority right to withdraw 1,500 AFY
   - Guaranteed storage up to 3x shares 4,500 AF
   - Storage in excess of 3x shares permitted if Semitropic has unused storage capacity available in the program

b. Water stored (<u>after</u> 10% leave behind)
   - 2018-2024 5,782 AF

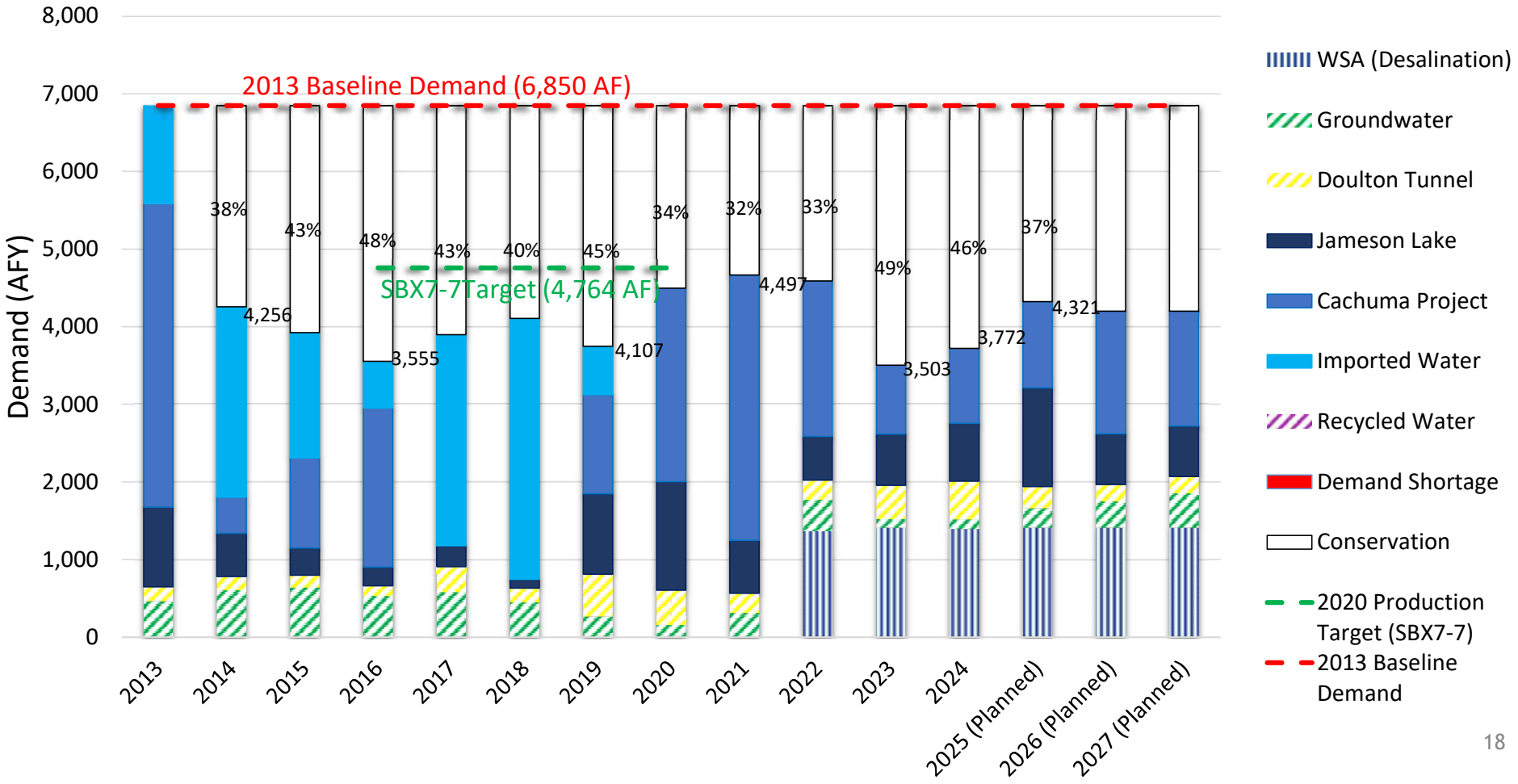
c. Additional storage in 2025 depends on final 2025 allocation and District priorities
   - Option to sell surplus water to Homer (deadline May 30)



Water Supply Summary

Source	Total Supplies Available as of 12/31/24 (AF)	Total WY25 Planned (AF)	WY25 Planned Production thru 12/31/24 (AF)	WY25 Actual Production thru 12/31/24 (AF)
1. Cachuma Project	4,691	1,111	198	104
2. Jameson Lake	4,160	1,252	301	417
3. Doulton Tunnel Infiltration	30 AF/mo	330	95	120
4. Potable/NP Groundwater	80 AF/mo	220	25	31
5. Imported (SWP /Supplemental water)	660	0	0	0
6. WSA (Desalination)	117.4 AF/mo	1,409	352	352
7. Stored (Semitropic)	5,782	0	0	0
Total		**4,321**	**971**	**1,025**

Water Supply Outlook



Ongoing Supporting Actions

1. Maximizing storage of surplus SWP water in Semitropic thru Dec 31, 2025
2. Potential sale of surplus SWP water; multi-year transfer agreement between DWR, CCWA and KCWA in development in connection with the *Water Management Agreement* with Homer
3. Evaluation of potential storage of surplus supplies in Montecito and Carpinteria Groundwater Basins continues
4. Updating the long-range water supply plan; *Future Demand and Water Supply Options Report*
5. Continue ongoing initiatives supporting efficient water use
   - Water use efficiency rebates
   - Roll out of Water Budgets in February 2025
   - Development of Demonstration Garden

Questions