MONTECITO WATER DISTRICT
MEMORANDUM

SECTION: 5-C

DATE: OCTOBER 22, 2024

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 with no significant changes since the prior quarterly update provided on August 27, 2024. The 2023/24 winter brought above average rainfall for a second consecutive year, both locally and in many locations statewide, topping off and/or spilling surface water reservoirs. Despite favorable rainfall conditions the past two winters, the US Drought Monitor indicates a worsening of drought conditions statewide, with about three quarters of the state now in abnormally dry or worse drought conditions (Figure 1).

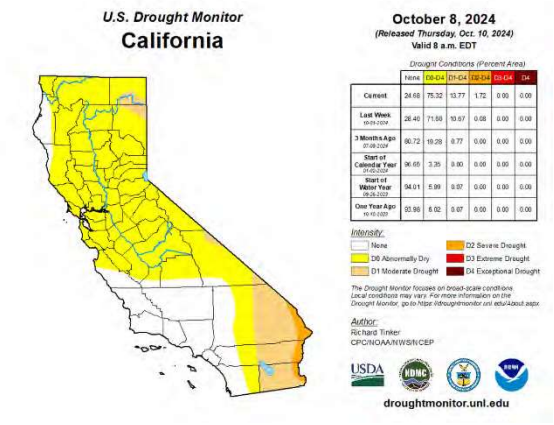


Figure 1: US Drought Monitor Map

According to the National Weather Service Climate Prediction Center, as of October 10, 2024, La Niña conditions are favored to emerge during September-November (66% chance) and persist through winter 2024-25 (January-March). Past El Niño and La Niña conditions have been highly variable, from extremely wet to extremely dry conditions locally and/or statewide, and therefore the anticipated impacts of this change 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 water production for WY 2024, which ended September 30, 2024, is about 14% below budget at 3,738 acre feet (AF). This is attributable to the above average wet conditions experienced locally this past winter, and a cooler and foggier spring and summer.

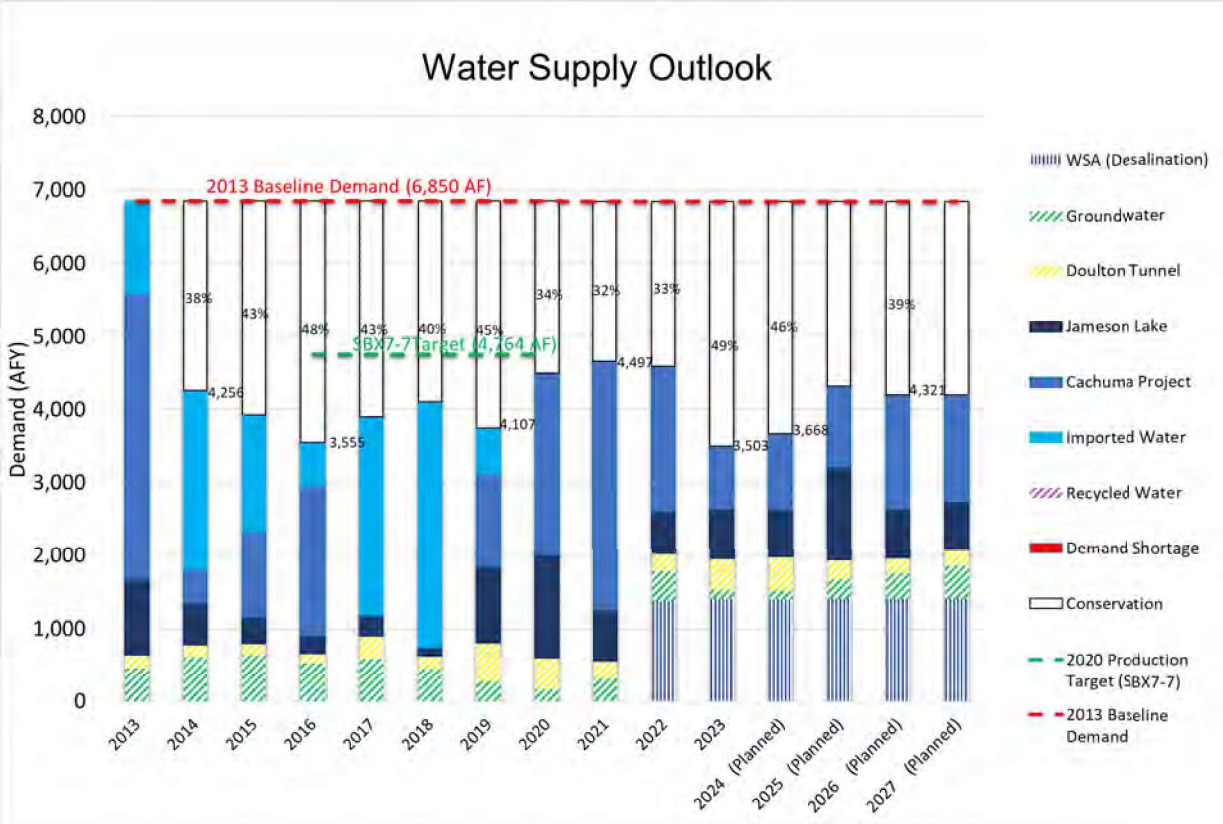


Figure 2: 3-Year Water Supply Outlook

Despite favorable water supplies conditions, 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, utilization of automated metering infrastructure (AMI or smart meters), and the ongoing evaluation of additional local rainfall independent water supplies and water banking.

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 February 2024 and spilled through mid-June 2024. As of September 30, 2024, the Cachuma project is more than 93% 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. The District's full Cachuma Project contractual entitlement is 2,651 AF. In July 2024, USBR issued a 100% allocation for WY 2025, which began October 1, 2024. Total Cachuma Project water deliveries for WY 2024 were 1,071 AF.

As of October 1, 2024, the District's has 4,820 AF of Cachuma Project supplies available, which includes 2,651 AF of current year allocation and 2,169 AF of carryover water (Cachuma Project allocation from a prior water year). Carryover water is at an increased risk of loss to spill during the upcoming 2024/25 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 97% of the current full storage capacity (4,587 acre feet) as of September 30, 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 Jameson Lake water deliveries for WY 2024 were 666 acre feet, which is reduced from planned use due to reduced customer water use following the 2023/24 wet winter.

In August 2024, the District had prepared an updated bathymetric survey for Jameson Lake, which was last surveyed in 2019. The collected data is used to determine the total volume of water existing beneath the Juncal dam spillway. The total volume of Jameson Lake, as of August 2024 is 4,587 acre feet (AF), a reduction of 261 AF since 2019. The resulting average annual sedimentation from 2019 to 2024 is approximately 52 AF per year, which is higher than the long-term average of approx. 28 AF per year. The increased sedimentation is likely attributable to the 2017 Thomas Fire, which burned the entire watershed for Jameson Lake.

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 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 September 30, 2024, tunnel intrusion is trending at about 336 gpm and continues to gradually decrease through the dry season. Total Doulton Tunnel deliveries for WY 2024 were 483 AF.

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). The District's 3-year water supply outlook projects groundwater production to be between 100 and 300 acre feet per year through WY 2027, depending on hydrologic conditions. Total Groundwater deliveries for WY 2024 were 123 acre feet, which was 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. The final SWP Table A allocation for 2024 is 40% or 1,320 acre feet. With favorable local

water supply conditions following the 2022/23 and 2023/24 winters, these 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 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 acre feet per year of District-stored water and store up to 4,500 acre feet 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 acre feet 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 continues to maximize the storage of surplus SWP water in Semitropic. As of September 2024, the District has stored and available for use 5,579 acre feet of its surplus SWP water. Storing surplus SWP supplies in Semitropic bolsters the District's drought supplies and reduces the risk of loss due to conditions such as spill.

Desalination deliveries began in January 2022, with the District receiving 117.4 acre feet 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 acre feet. Total desalination deliveries for WY 2024 were 1,395 acre feet, or approx. 37% of total production.

Customer Water Use (Demand)

Customer water use thus far this water year continues to trend below budget (see Figure 3). As of September 30, 2024, customer water use is 14% below budget, which is attributable to the above average wet winter, and a cooler and foggier spring and summer. This water use trend is similar that of WY2023 which experienced similar weather conditions. As anticipated, customer water use over summer months is trending closer to budget as the region enters the typically warmer and drier months of the year. Annual budgeted water sales align with the 5-year average customer use or approx. 3,950 AF.

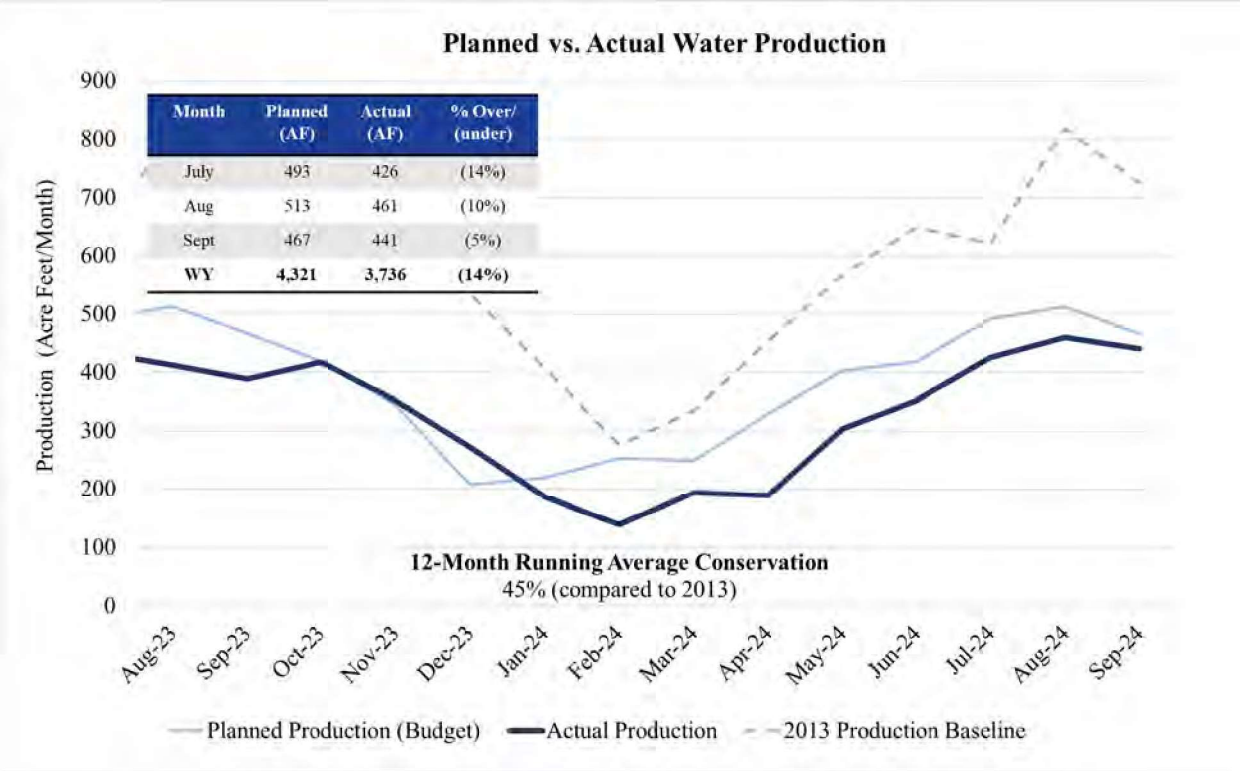


Figure 3: Actual vs. Planned Water Production

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. The District began implementation of its WUEP with a Pilot Conservation Program that provided customer rebates for specific water conservation-related actions, easily implemented by customers that reduce water use in the near- and long-term. This included rebates for high efficiency toilet and appliance replacements, mulch installation, landscape conversions, and others. In early 2024, the District transitioned to the full water conservation program which modified some of the existing rebates, adding additional rebates, and initiating other actions with the objective of achieving a permanent reduction in water use. More information on the available rebates 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 preliminary reporting indicates it is currently in compliance with its UWUO.

Supporting compliance with the UWUO legislation, in October 2022, the District began 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 garden-like 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 nearing completion and expected to be completed and rolled out for customer use in November 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.

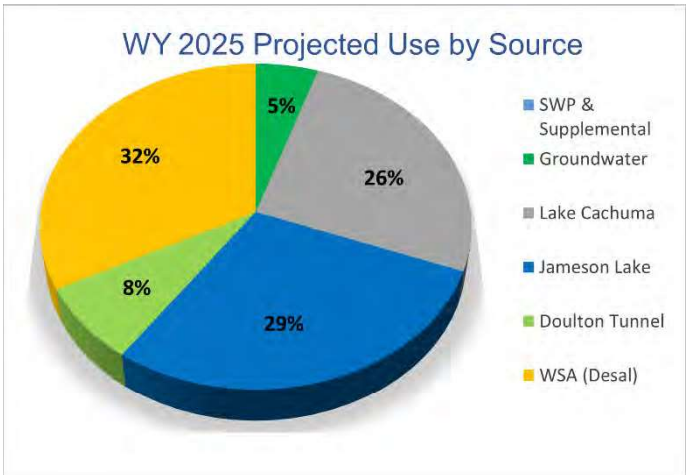
Focus continues to be on efficient water use, in particular the implementation of the *2022 Water Use Efficiency Plan* and associated water conservation rebates, the establishment of water budgets, and utilization of automated metering infrastructure (AMI or smart meters). These will provide customers 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 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 next several months.

Primary sources of water supply used to meet customer demands in WY 2024 and anticipated to be used 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

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Item 5-C

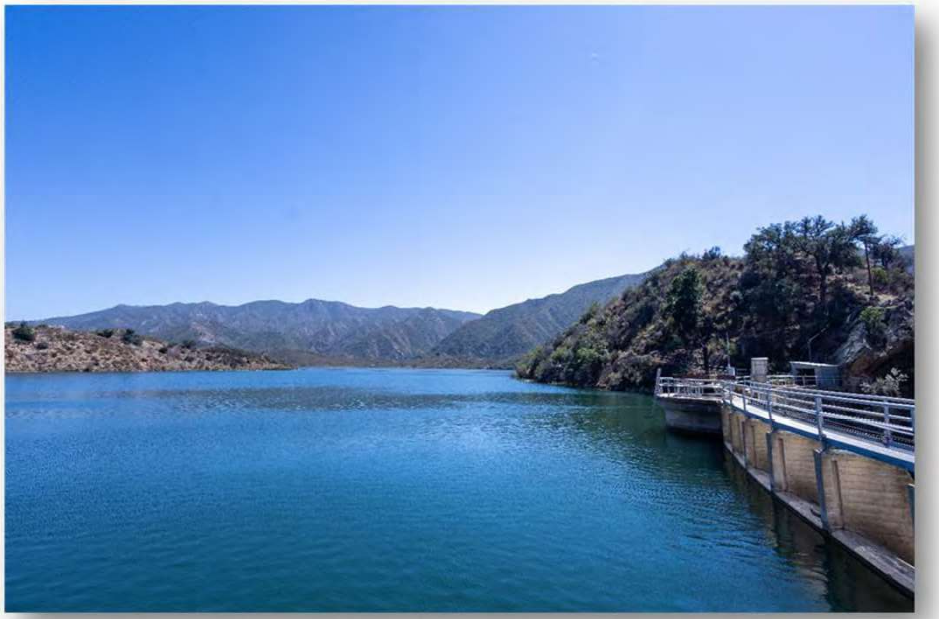
Quarterly Water Supply Update

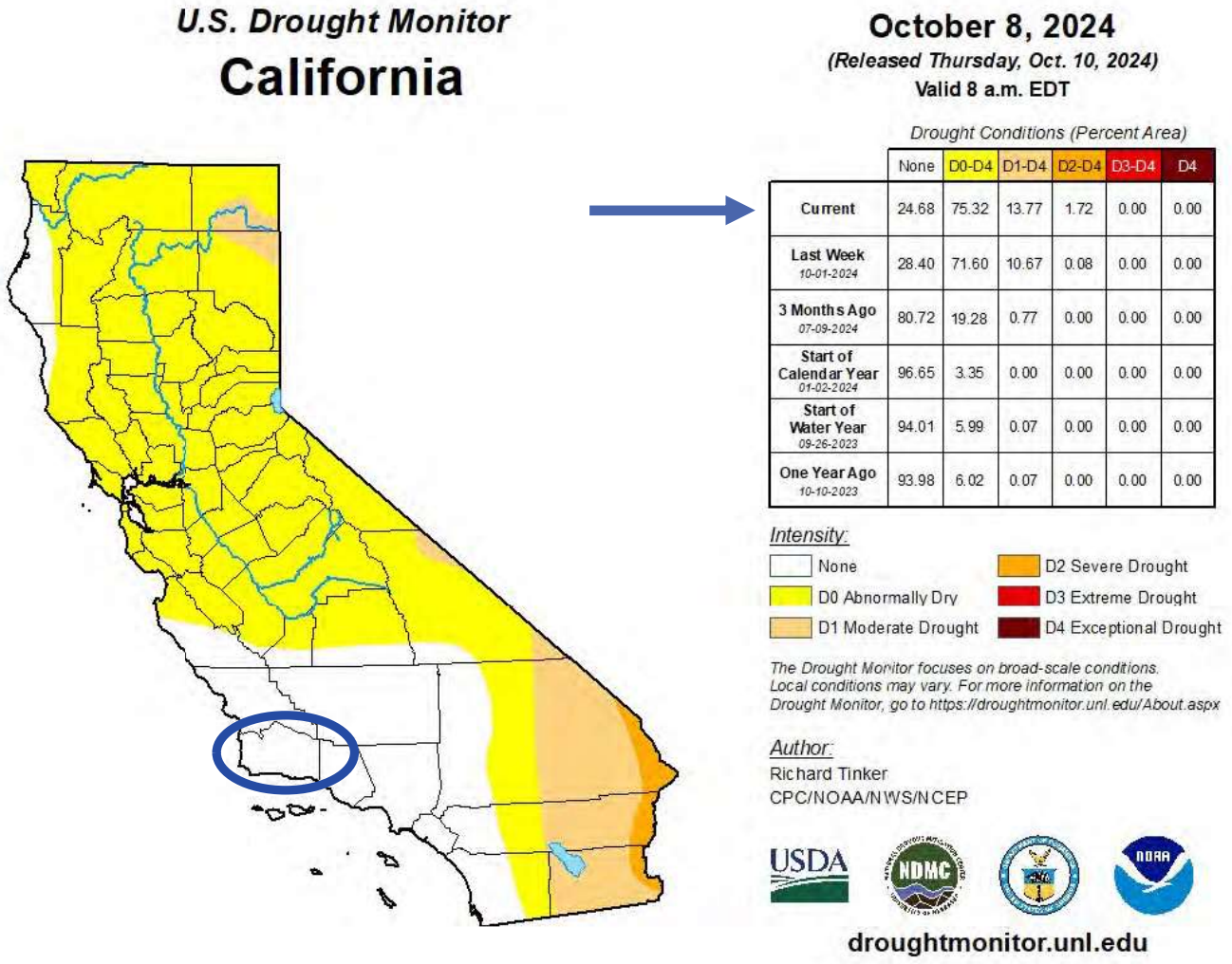
Meeting of the Board of Directors

October 22, 2024

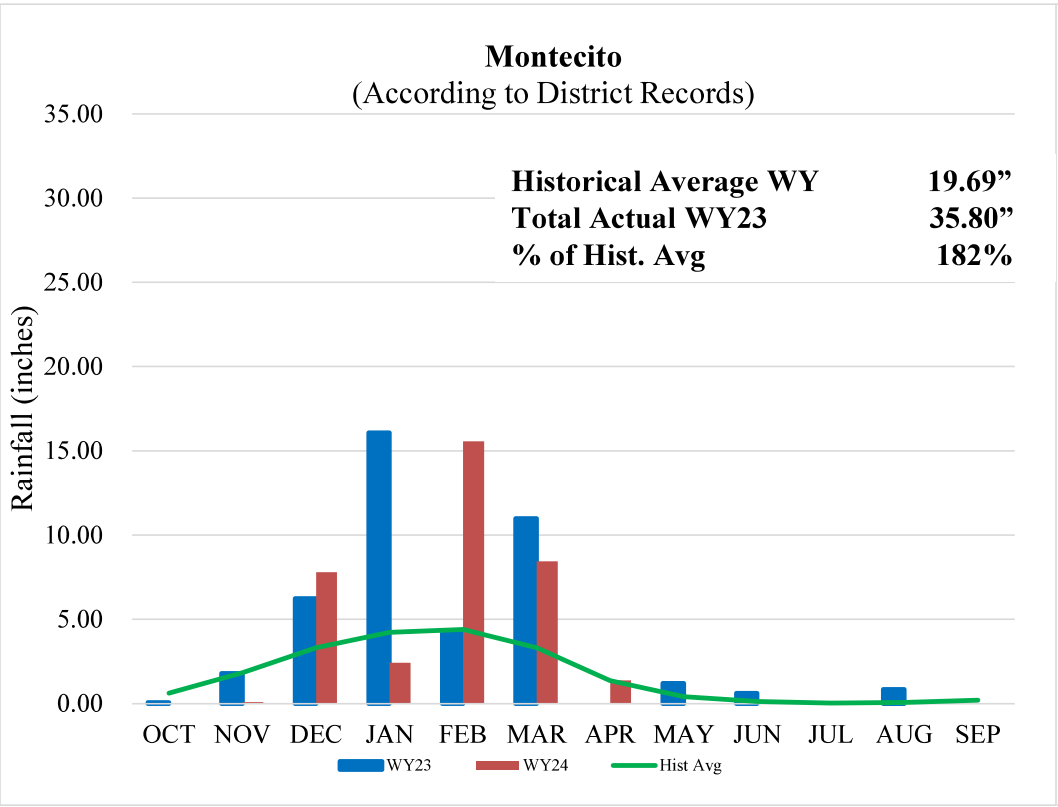
Outline

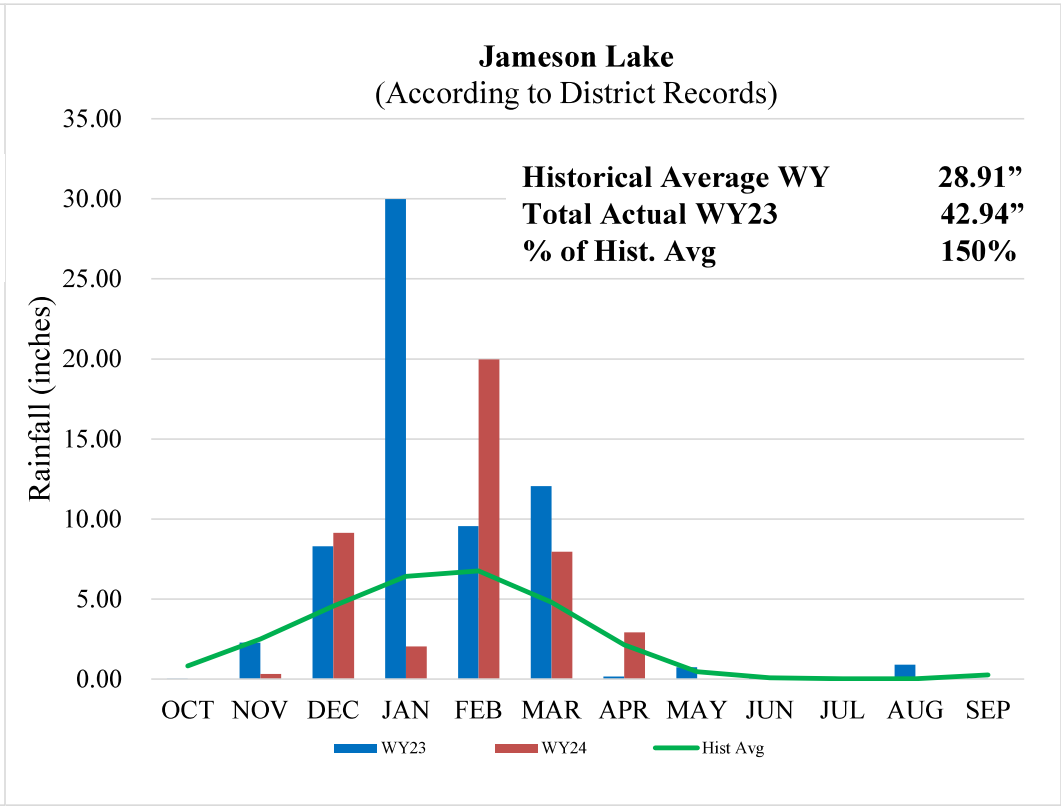
1. Hydrologic Conditions
2. Water Use Trends
3. Water Supply Status
4. Water Supply Outlook
5. Supporting Initiatives

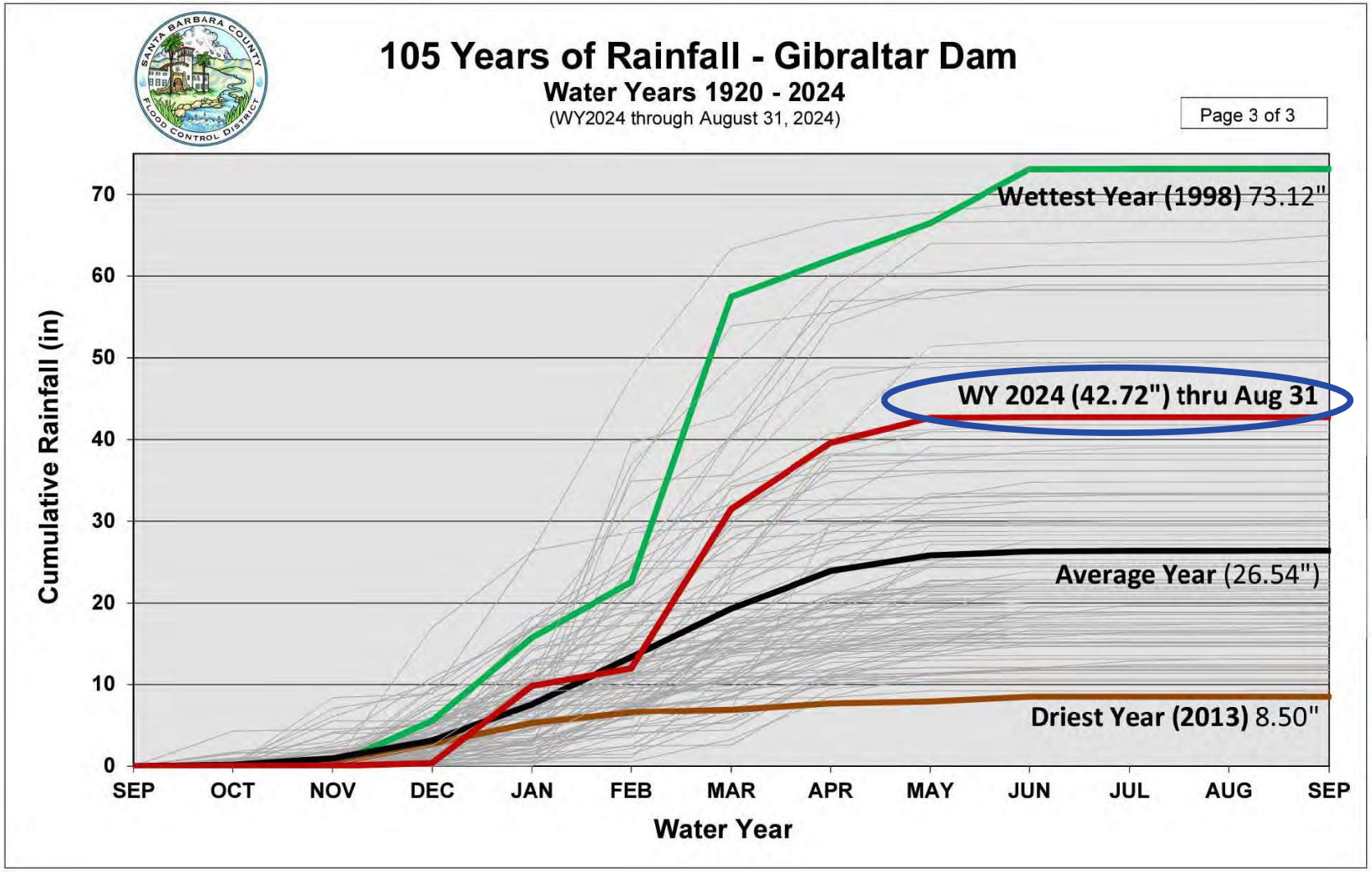



U.S. Drought Monitor
California
October 8, 2024
(Released Thursday, Oct. 10, 2024)
Valid 8 a.m. EDT
Drought Conditions (Percent Area)
None D0-D4 D1-D4 D2-D4 D3-D4 D4
Current 24.68 75.32 13.77 1.72 0.00 0.00
Last Week 10-01-2024 28.40 71.60 10.67 0.08 0.00 0.00
3 Months Ago 07-09-2024 80.72 19.28 0.77 0.00 0.00 0.00
Start of Calendar Year 01-02-2024 96.65 3.35 0.00 0.00 0.00 0.00
Start of Water Year 09-26-2023 94.01 5.99 0.07 0.00 0.00 0.00
One Year Ago 10-10-2023 93.98 6.02 0.07 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:
Richard Tinker
CPC/NOAA/NWS/NCEP
USDA
NDMC
NOAA
droughtmonitor.unl.edu

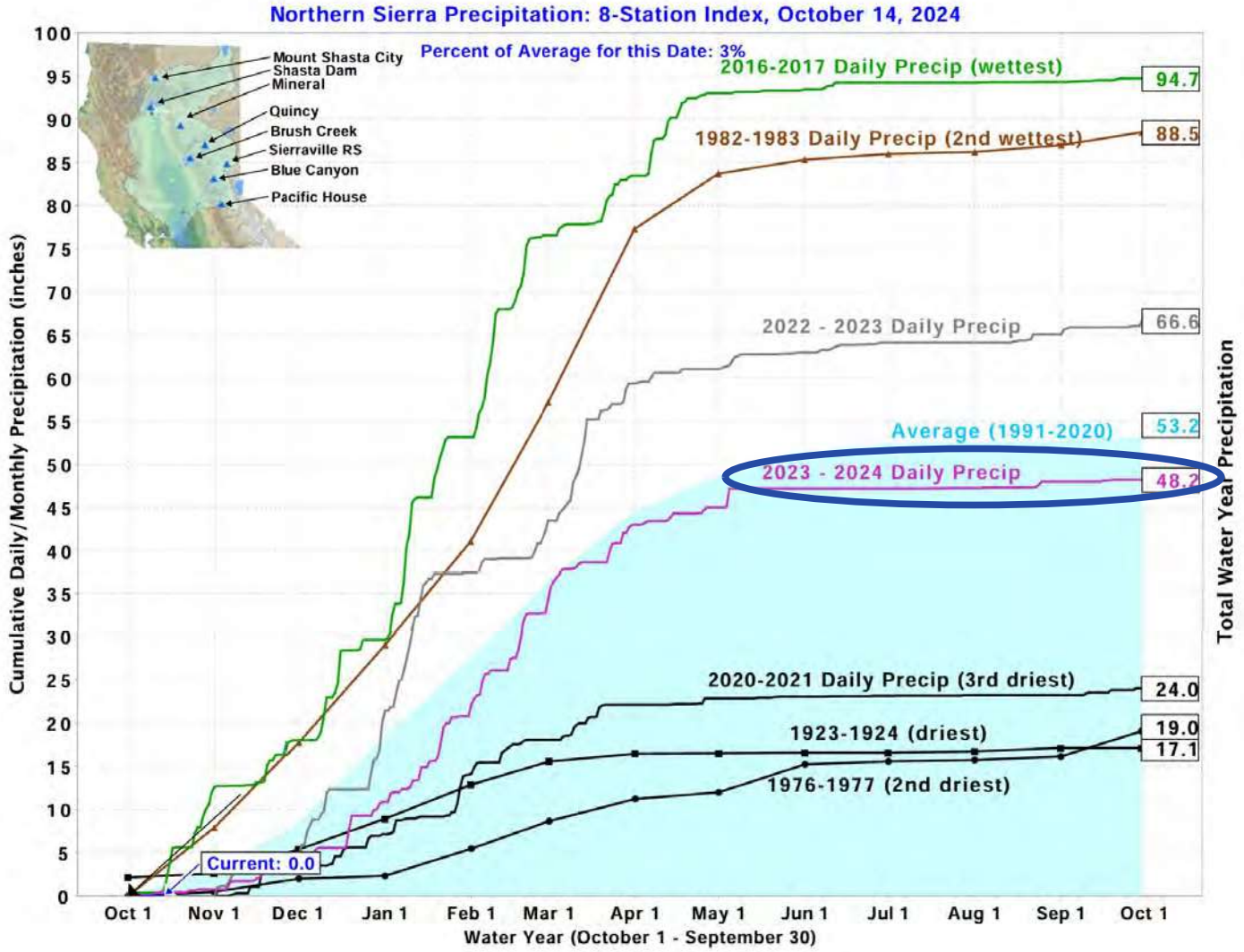
Rainfall


Montecito
(According to District Records)
Historical Average WY 19.69”
Total Actual WY23 35.80”
% of Hist. Avg 182%
Rainfall (inches)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
WY23
WY24
Hist Avg

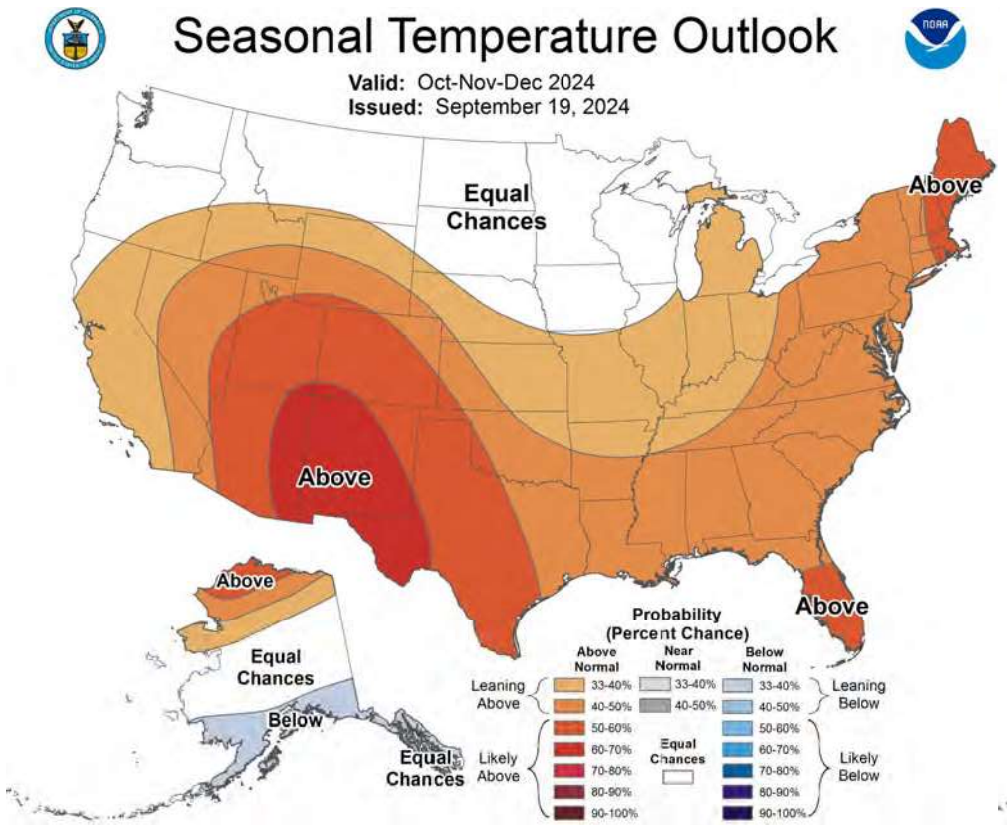

Jameson Lake
(According to District Records)
Historical Average WY 28.91”
Total Actual WY23 42.94”
% of Hist. Avg 150%
Rainfall (inches)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
WY23
WY24
Hist Avg

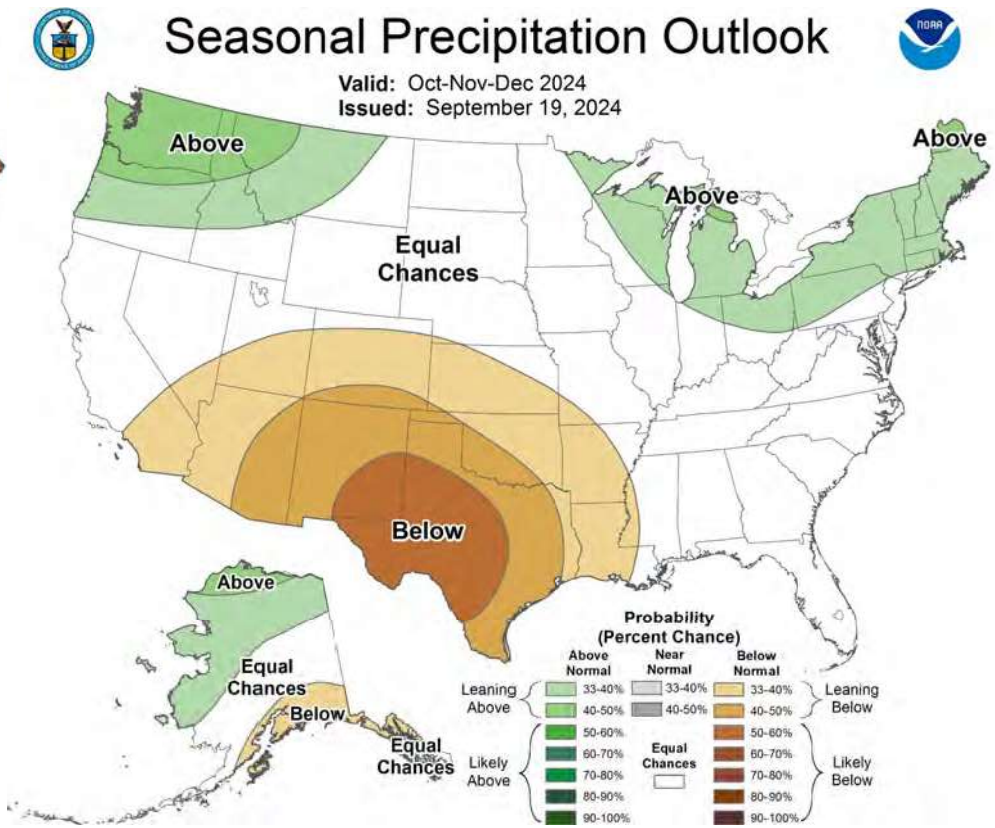

105 Years of Rainfall - Gibraltar Dam
Water Years 1920 - 2024
(WY2024 through August 31, 2024)
Page 3 of 3
Wettest Year (1998) 73.12"
WY 2024 (42.72") thru Aug 31
Average Year (26.54")
Driest Year (2013) 8.50"
Cumulative Rainfall (in)
0
10
20
30
40
50
60
70
SEP
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Water Year

HYDROLOGIC CONDITIONS – NORTHERN CALIFORNIA



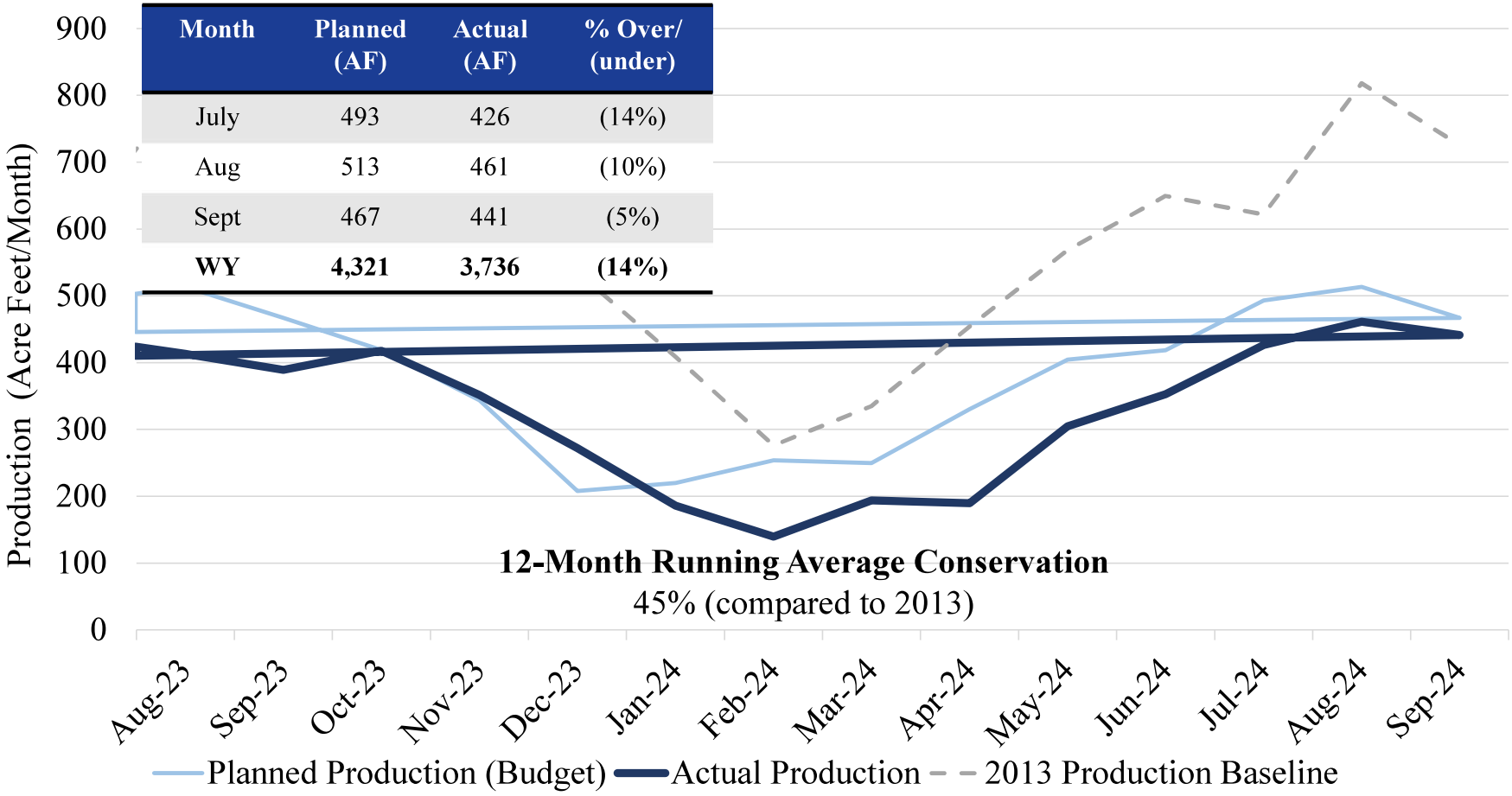
NWS Prediction



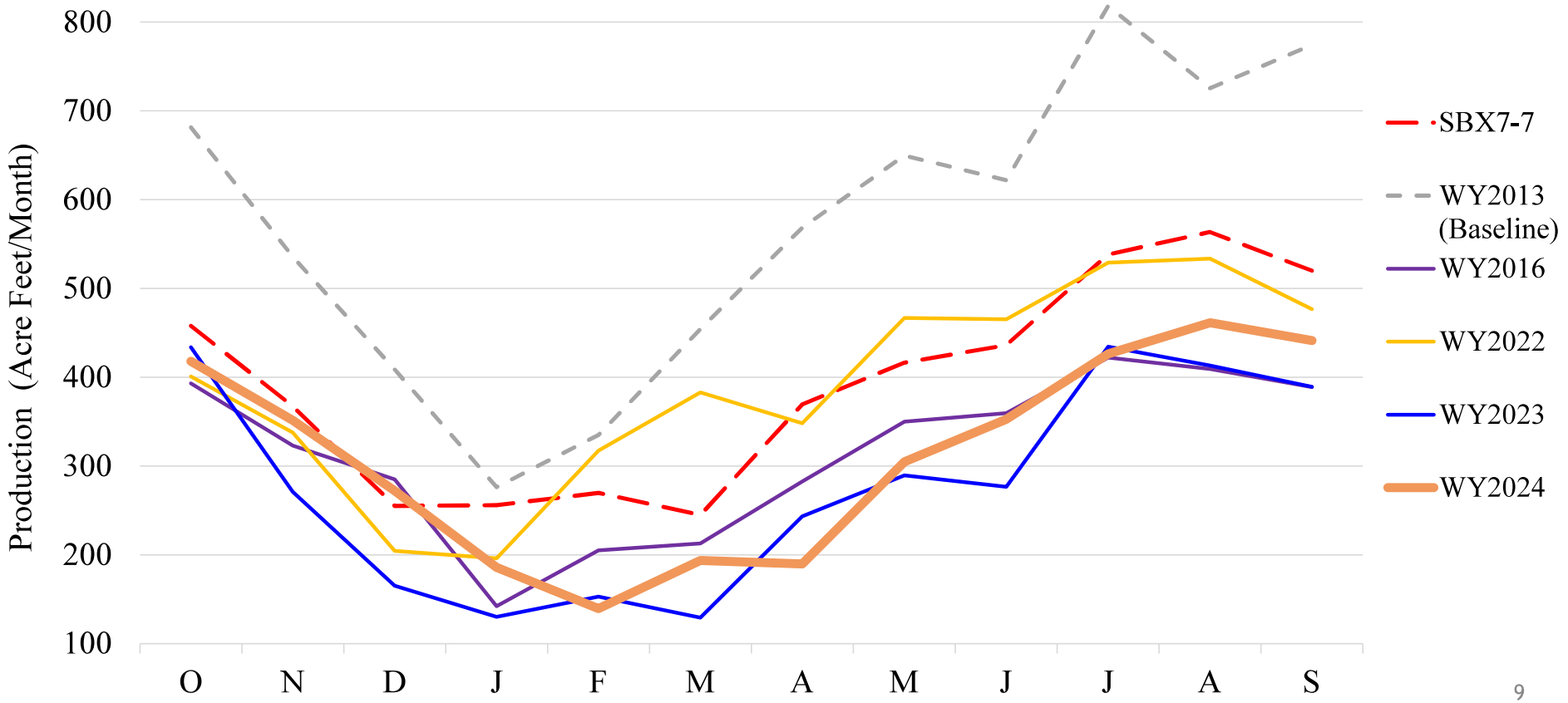


Planned vs. Actual Production

Month	Planned (AF)	Actual (AF)	% Over/ (under)
July	493	426	(14%)
Aug	513	461	(10%)
Sept	467	441	(5%)
WY	**4,321**	**3,736**	**(14%)**



Annual Production Comparison



Cachuma Project

As of September 30, 2024

1. 93.6% of full storage capacity (180,594 AF*)
2. Water Available in Cachuma

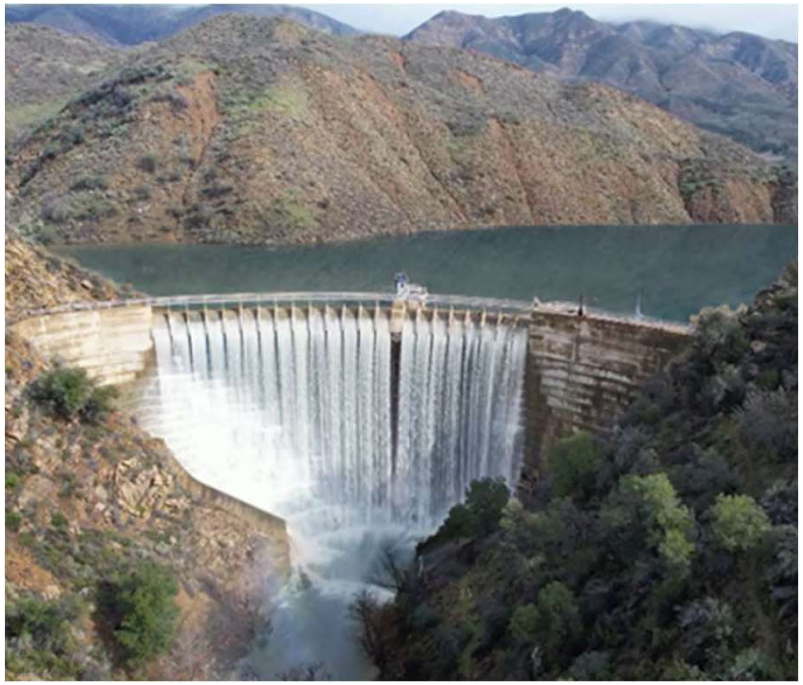
• WY24 allocation + ID1 Exch.	2,169 AF
• SWP/Supplemental	0 AF
Subtotal (Sept 30)	2,169 AF
• WY25 allocation	2,651 AF
Total (Oct 1)	**4,820 AF**

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

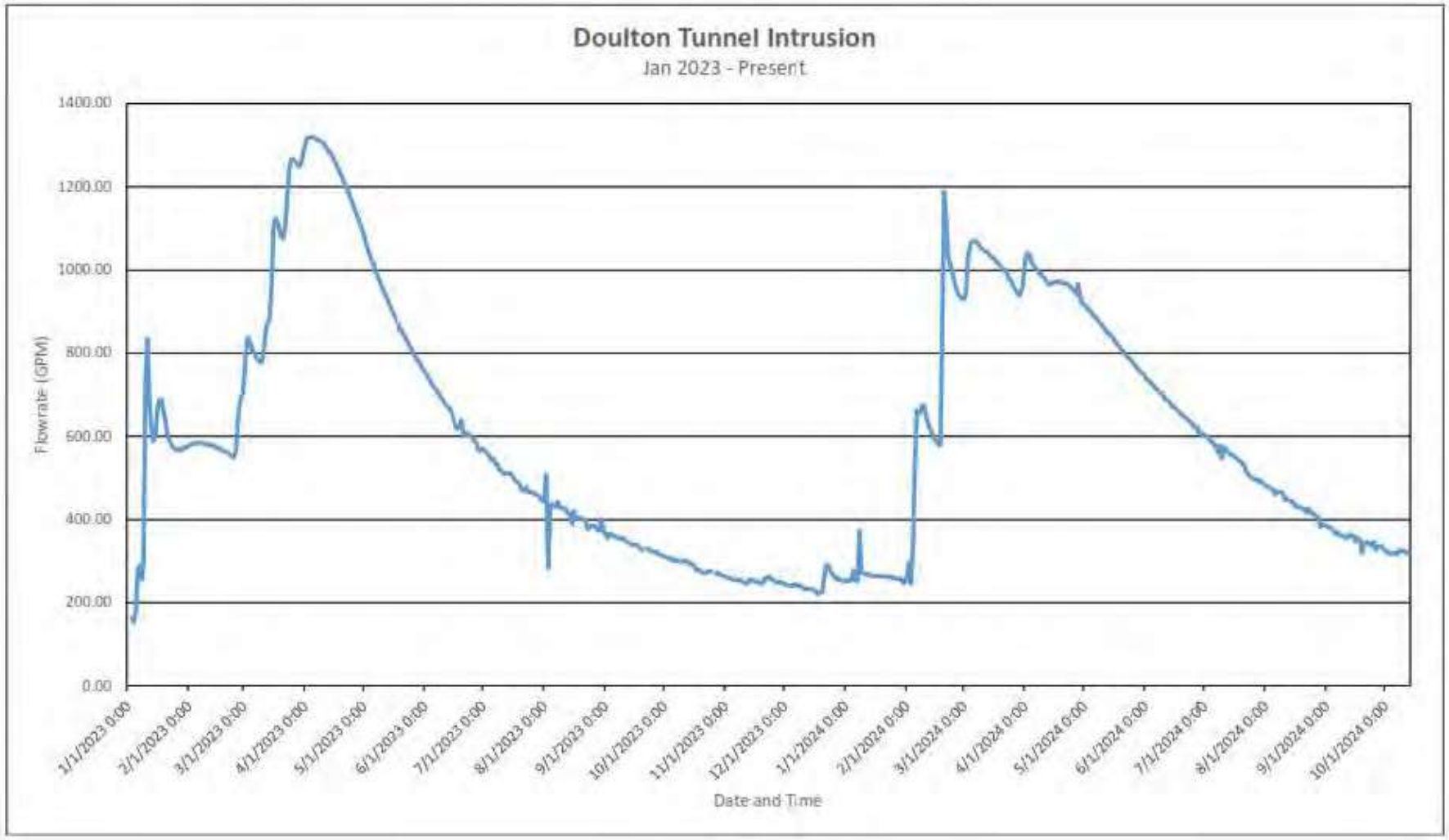
* Data obtained from County of Santa Barbara Flood Control District – *Rainfall and Reservoir Summary*

Jameson Lake

As of September 30, 2024



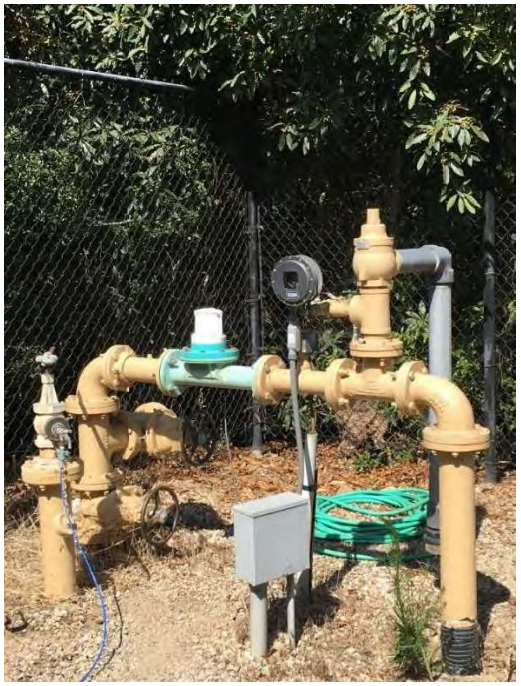
1. Current storage 4,445 AF (97% of current capacity)
2. Aug 2024 Bathymetric Survey
   - Updated Lake Capacity 4,587AF
   - 261AF decrease from 2019 Survey
3. Spilled Dec 21, 2023 thru Aug 18, 2024
4. Water quality remains excellent; organic loading low
5. Targeting maximum deliveries in accordance with modified rule curve (1065 gpm or 141 AF/mo)
6. Completed annual 300AF Juncal Exchange w/ City
7. Doulton Tunnel Intrusion (336 gpm or 45 AFM)


Doulton Tunnel Intrusion
Jan 2023 - Present
Flowrate (GPM)
1400.00
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
1/1/2023 0:00
2/1/2023 0:00
3/1/2023 0:00
4/1/2023 0:00
5/1/2023 0:00
6/1/2023 0:00
7/1/2023 0:00
8/1/2023 0:00
9/1/2023 0:00
10/1/2023 0:00
11/1/2023 0:00
12/1/2023 0:00
1/1/2024 0:00
2/1/2024 0:00
3/1/2024 0:00
4/1/2024 0:00
5/1/2024 0:00
6/1/2024 0:00
7/1/2024 0:00
8/1/2024 0:00
9/1/2024 0:00
10/1/2024 0:00
Date and Time

Groundwater

As of September 30, 2024

1. Basin recovery continues following two consecutive above average wet winters
2. Potable wells remain OFF; allowing for increased basin recharge; no near-term planned use
3. Evaluation of groundwater injection continues
4. Groundwater Management (Montecito GSA)
   A. GSP adopted in May 2023 and DWR review remains pending
   B. Copies available at montecitogsa.com
   C. GSP implementation ongoing; focus on data acquisition / monitoring
   D. Upcoming Meetings
      - Strategic Planning Committee – October 28
      - Finance Committee – October 29
      - Board of Directors – November 5



Paden Well

Imported Water

As of September 30, 2024

1. State Water Project (SWP) Water
   a. 2024 Table A Allocation 40% (final)
   b. SWP remains surplus; No planned deliveries to Cachuma in 2024
   c. Maximizing storage of surplus SWP water in Semitropic
   d. SWP Water Accounting

• 2024 Table A allocation is 40%	1,320 AF
• Art 56 Carryover Water (as of 1/1/24)	1,323 AF
• Art 14b Water	148 AF
• ID1 exchange	(421 AF)
• Stored in Semitropic (Feb-Sept)	(2,145 AF)
Total	225 AF
• Remaining planned ID1 exchange (Oct-Dec)	(24 AF)
• Additional planned banking (Oct-Dec)	(±201 AF)
Projected availability in SLR as of 12/31/24	**0 AF**

2. Supplemental Water- Not needed through WY2027

Stored Water

As of September 30, 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 (after 10% leave behind)

• 2018-2023	3,649 AF
• 2024	1,931 AF
Total	5,579 AF

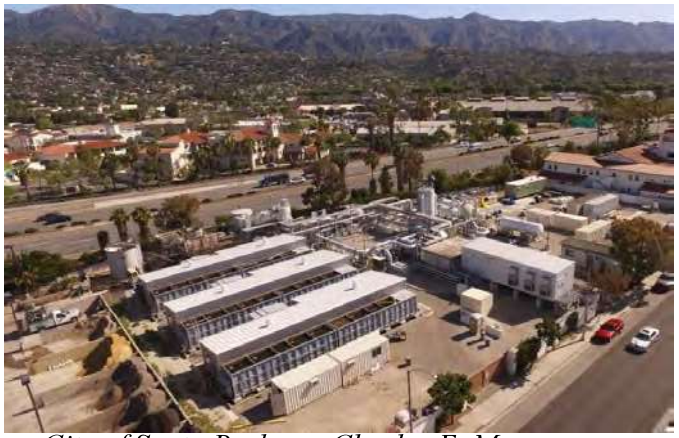
c. Reserved additional ±200 AF recharge capacity (Oct-Dec)

15

Desalination

As of September 30, 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. Treated as base supply

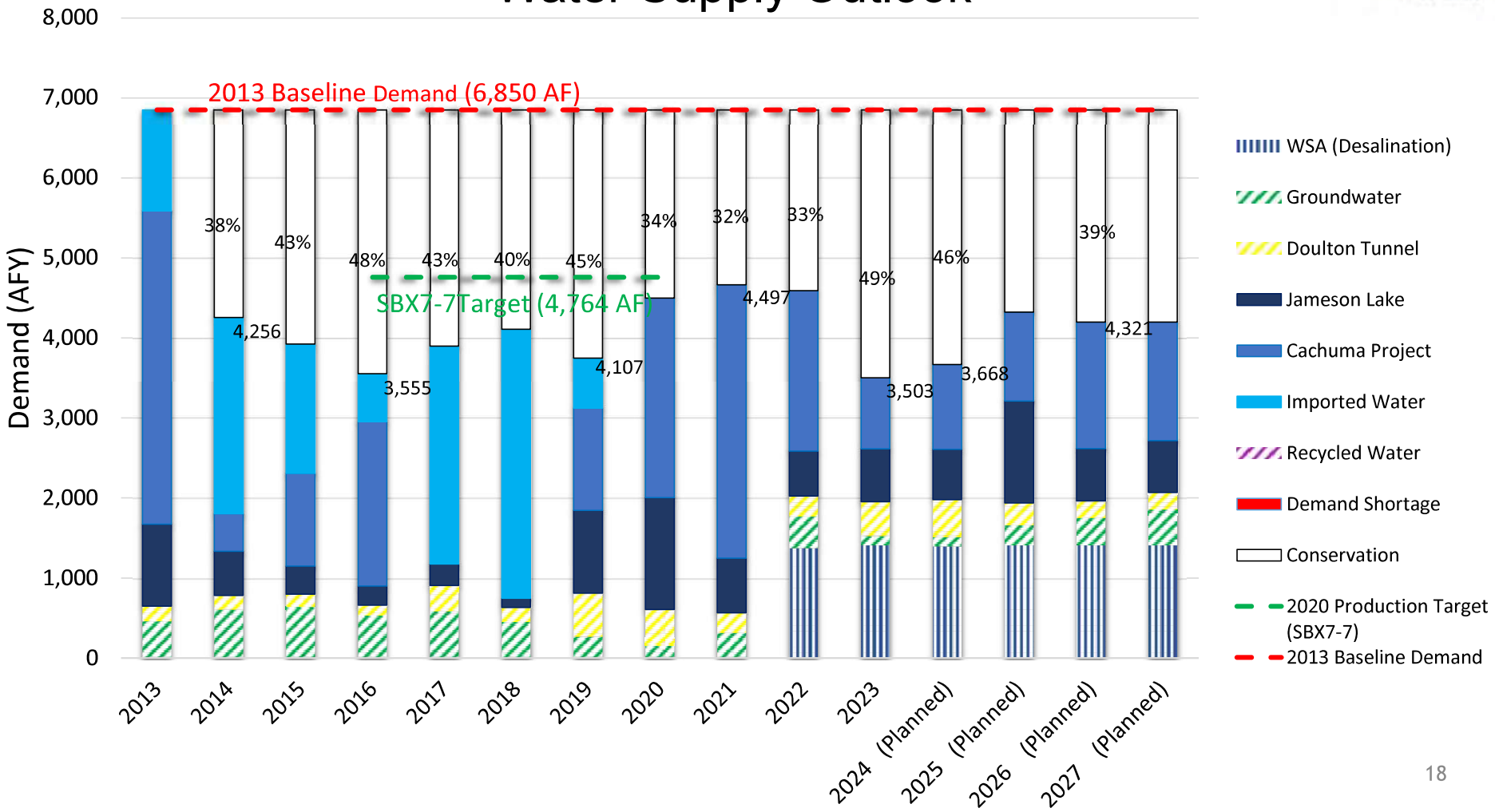


City of Santa Barbara, Charles E. Meyer Desalination Facility

Water Supply Summary

Source	Total Available as of 9/30/24 (AF)	Total WY24 Planned (AF)	Total WY24 Production (AF)
1. Cachuma Project	2,169	1,031	1,071
2. Jameson Lake	4,445	1,136	666
3. Doulton Tunnel Infiltration	45 AF/mo	475	483
4. Potable/NP Groundwater	80 AF/mo	270	123
5. Imported (SWP /Supplemental water)	225	0	0
6. WSA (Desalination)	117.4 AF/mo	1,409	1,395
7. Stored (Semitropic)	5,579	0	0
Total		**4,321**	**3,738**

Water Supply Outlook



Ongoing Supporting Actions

1. Maximizing storage of surplus SWP water in Semitropic
2. Finalized agreement with Homer for transfer (or sale) of surplus SWP water (May 2024); Completing CEQA; Pursing agreement DWR/County of SB/Kern County
3. Evaluating the potential storage of surplus supplies in Montecito and Carpinteria Groundwater Basins
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
   - Developing Water Budgets; implementation planned for early November 2024
   - Development of Demonstration Garden
   - Use of Automated Metering Infrastructure

Questions