

NEVADA DIVISION OF
WATER RESOURCES



I don't need water! Water's for quitters! I don't need it! I don't need it!...

Mason Valley Annual Groundwater Update
March 24, 2026

Presented by:
**Lauren Bartels, Kip Allander, and
Carly Venghaus**
Nevada Division of Water Resources



Additional material: <https://www.youtube.com/watch?v=m5uayeTCYJQ>

OVERVIEW

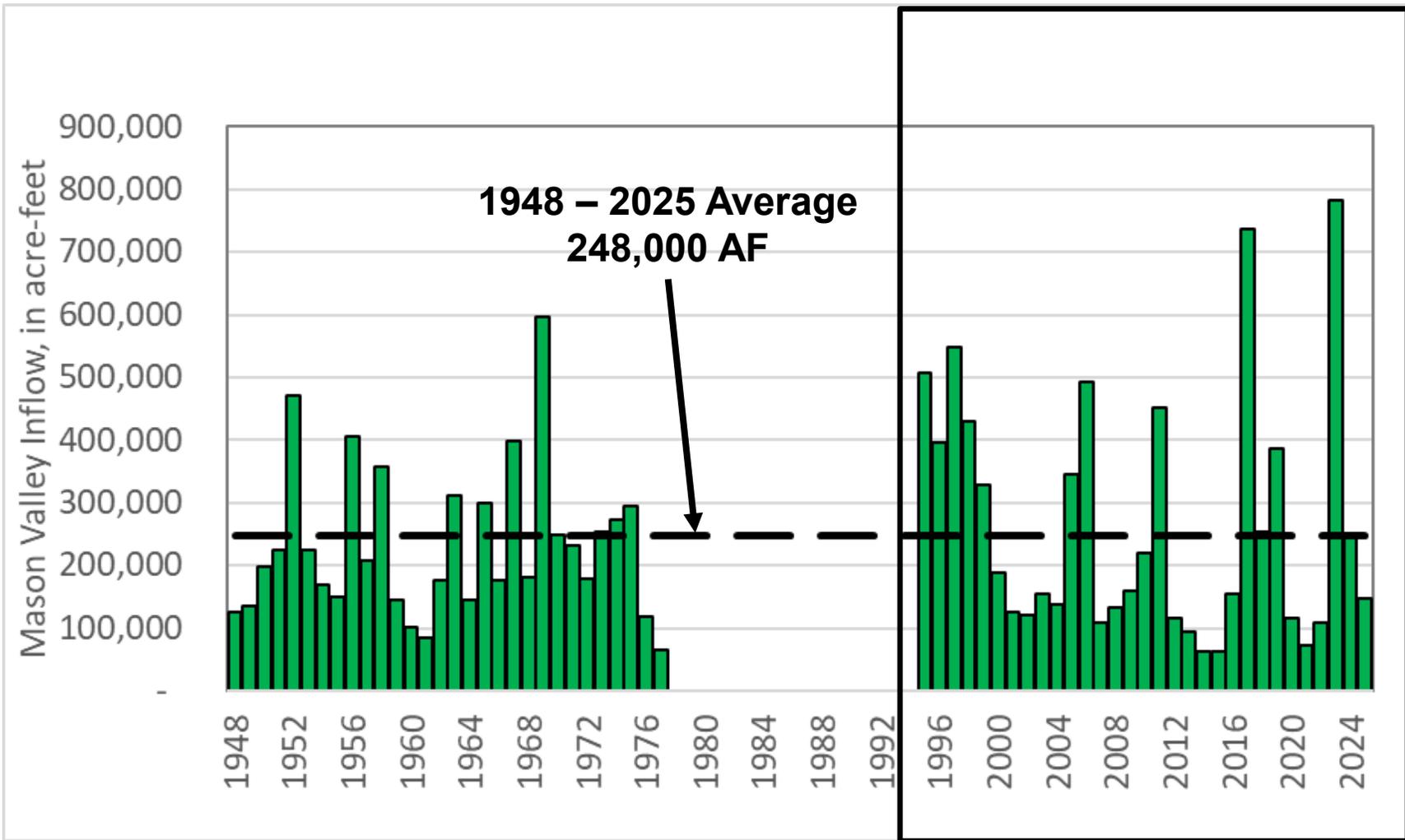
- Recap of 2025 runoff
- Pumping and water levels for 2025
- Current water supply conditions
- Pumping goals for 2026
- Summary and Outlook



RECAP OF 2025 RUNOFF SEASON

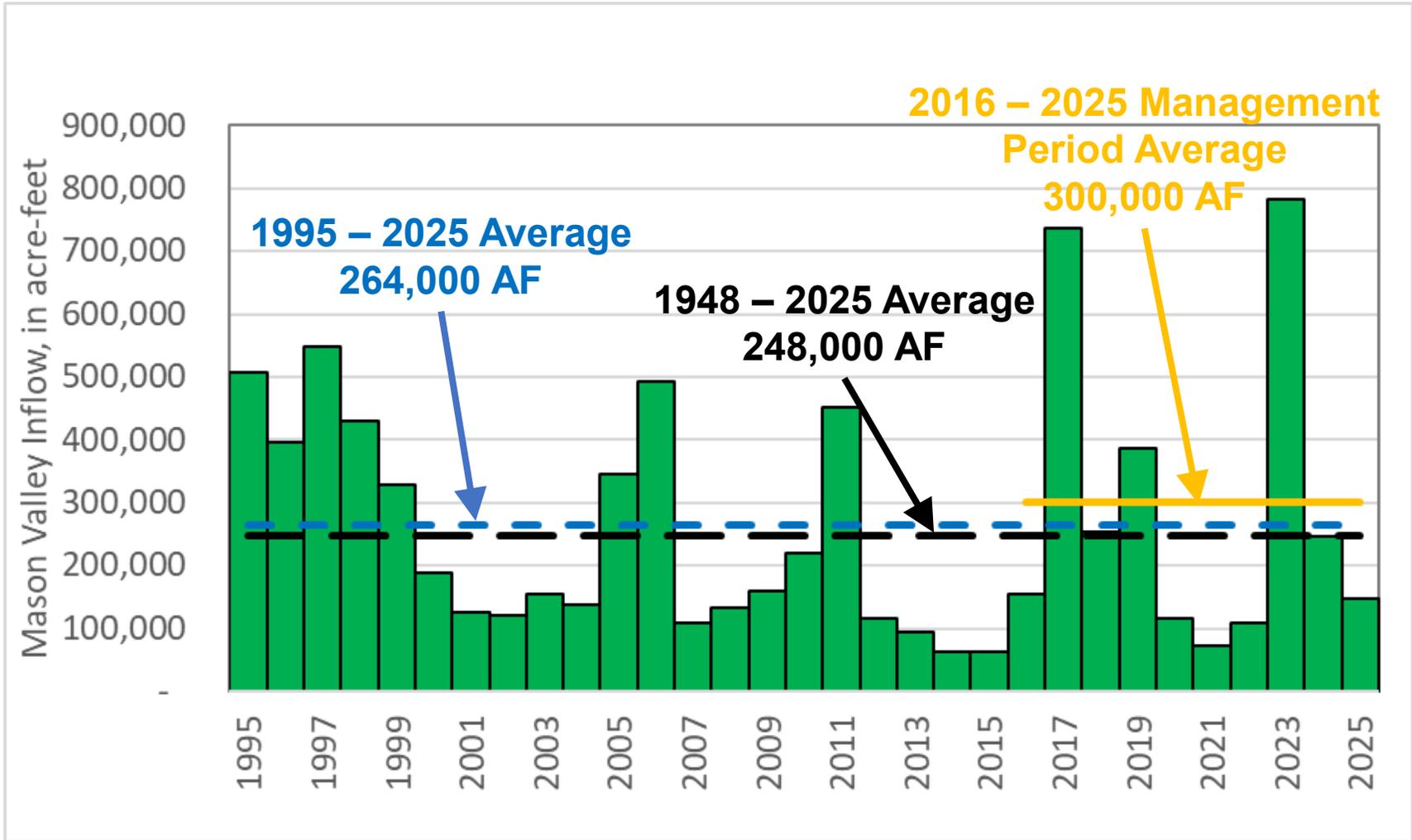
WALKER RIVER INFLOW TO MASON VALLEY – FULL PERIOD

2025 runoff was less than long-term average by about 100,000 AF.



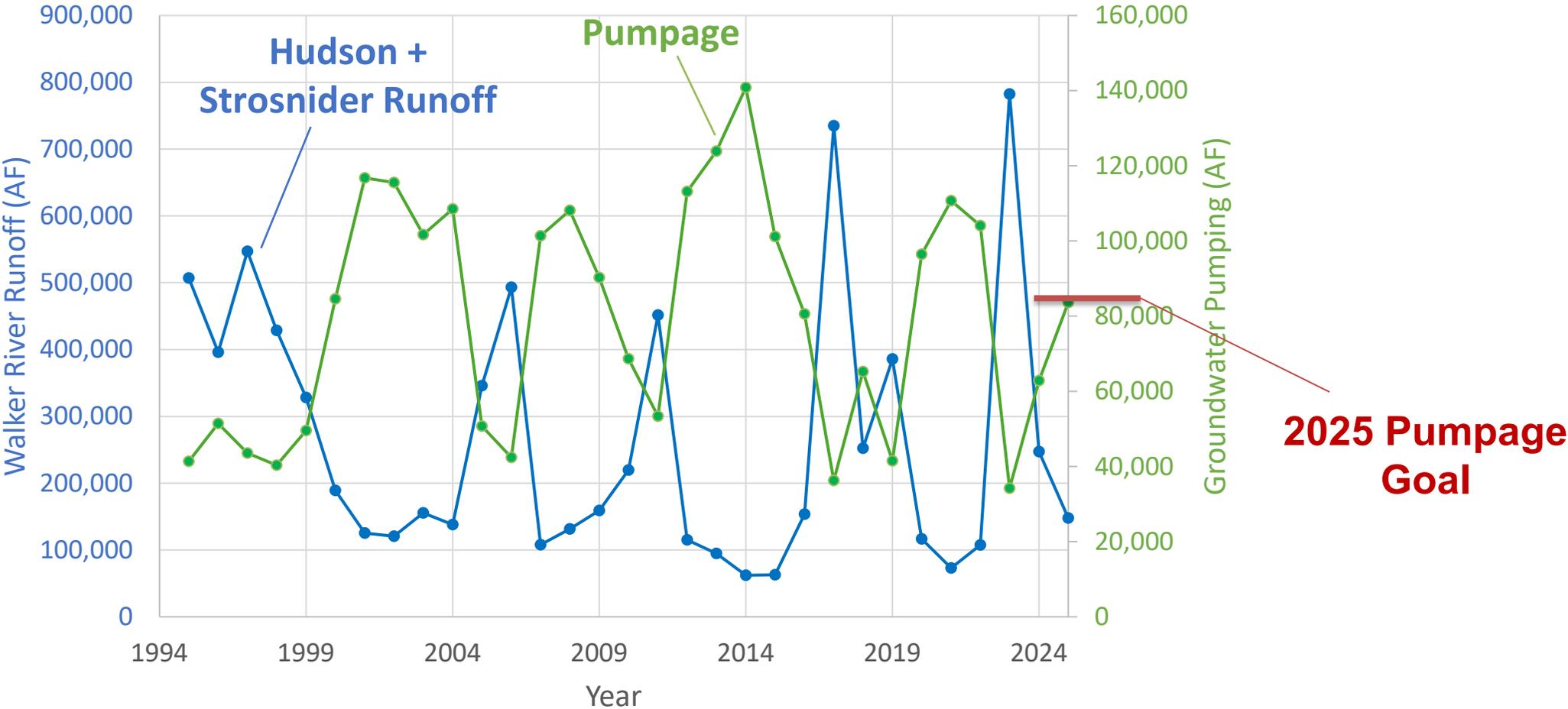
WALKER RIVER INFLOW TO MASON VALLEY – LAST 30 YEARS

2016 – 2025
 Management period
 average runoff is 36,000
 acre-feet wetter than
 1995 – 2025 period.

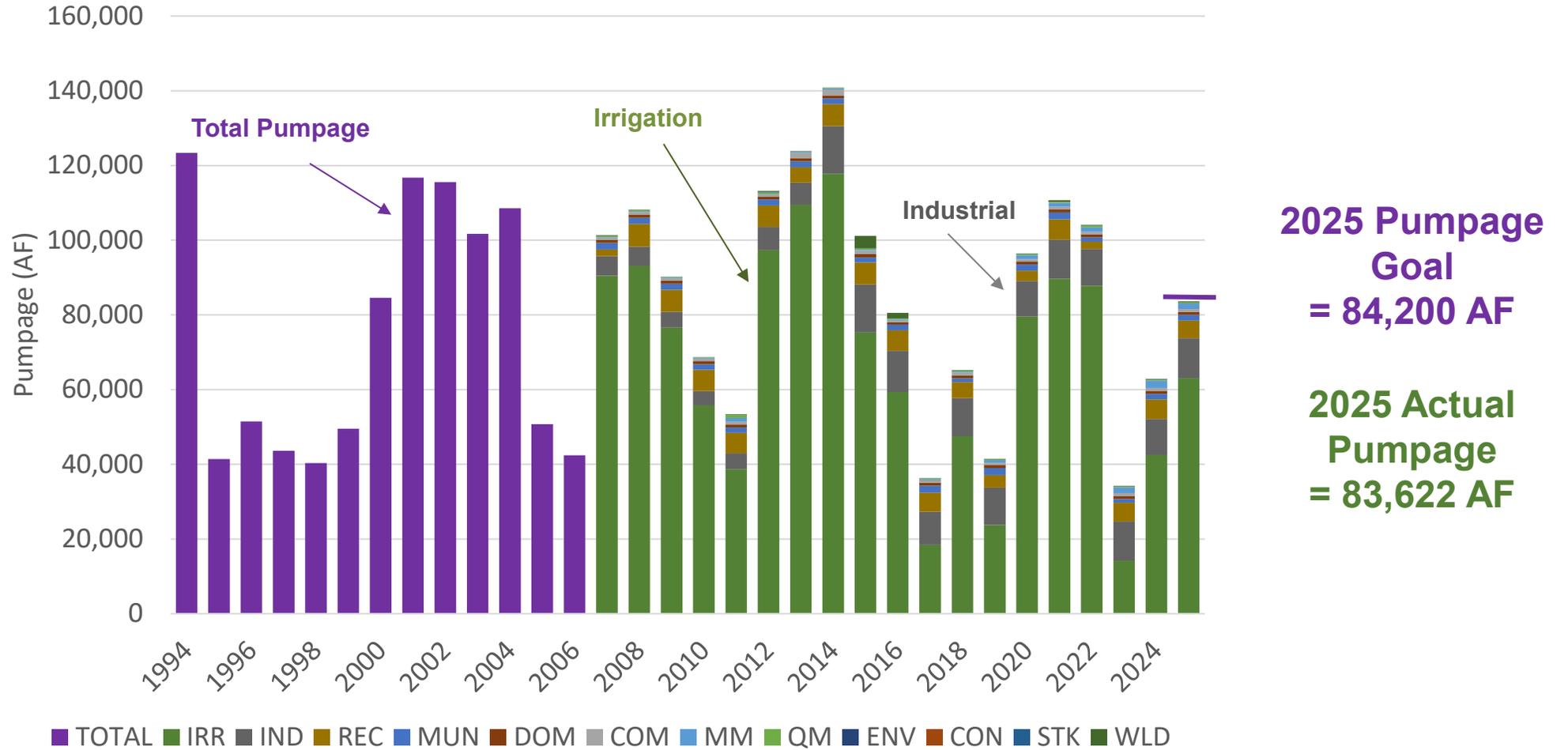


2025 PUMPING AND WATER LEVEL REVIEW

WALKER RIVER STREAMFLOW VS. MASON VALLEY PUMPING



MASON VALLEY TOTAL PUMPAGE



*2025 pumpage data are provisional and subject to revision.

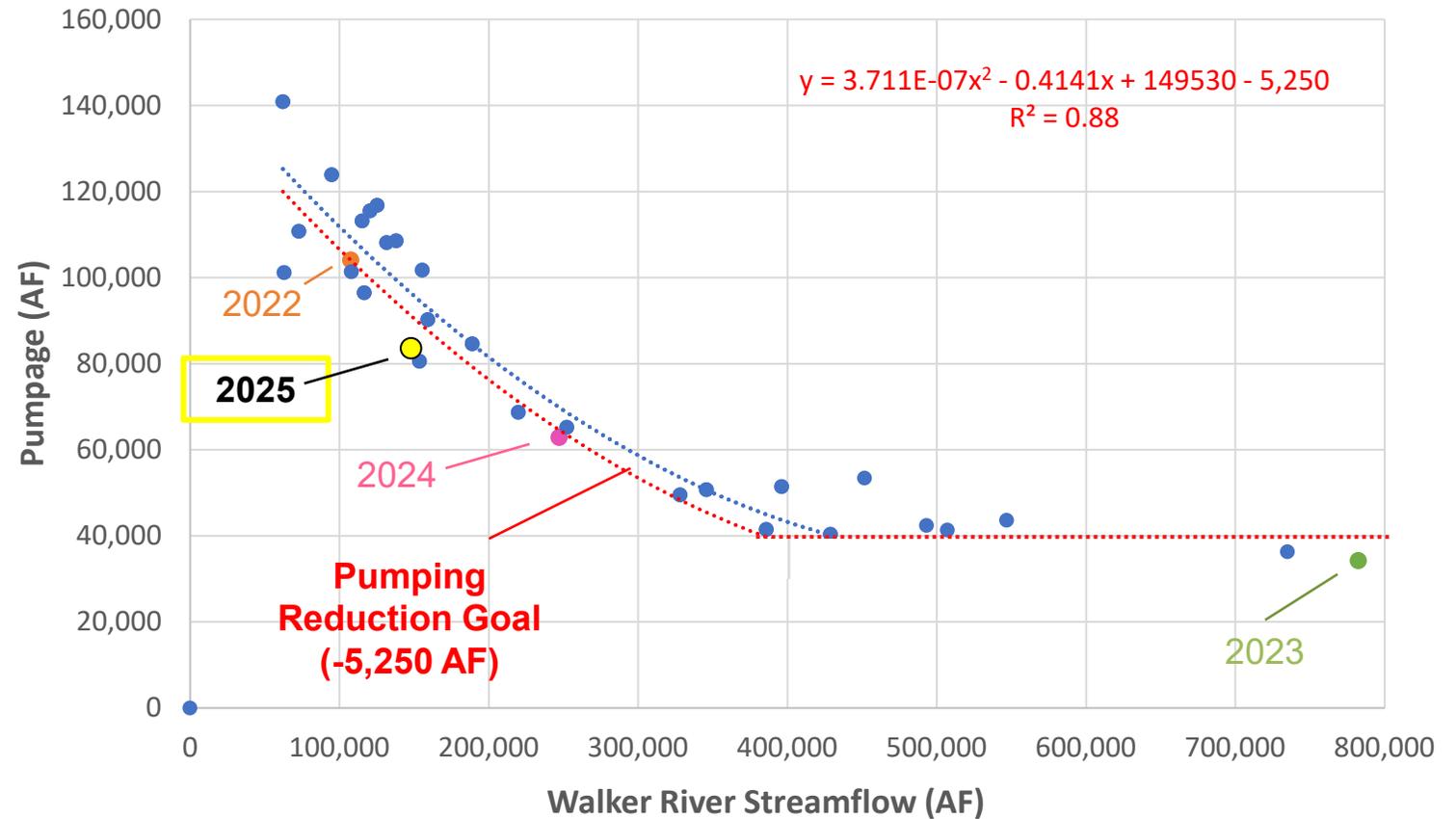
PUMPING PREDICTION 2025 REVIEW – MASON VALLEY



For 2025, based on actual streamflow and pumping; pumpage came in under goal line.

In 2025, actual pumpage was almost exactly equal to the goal pumpage

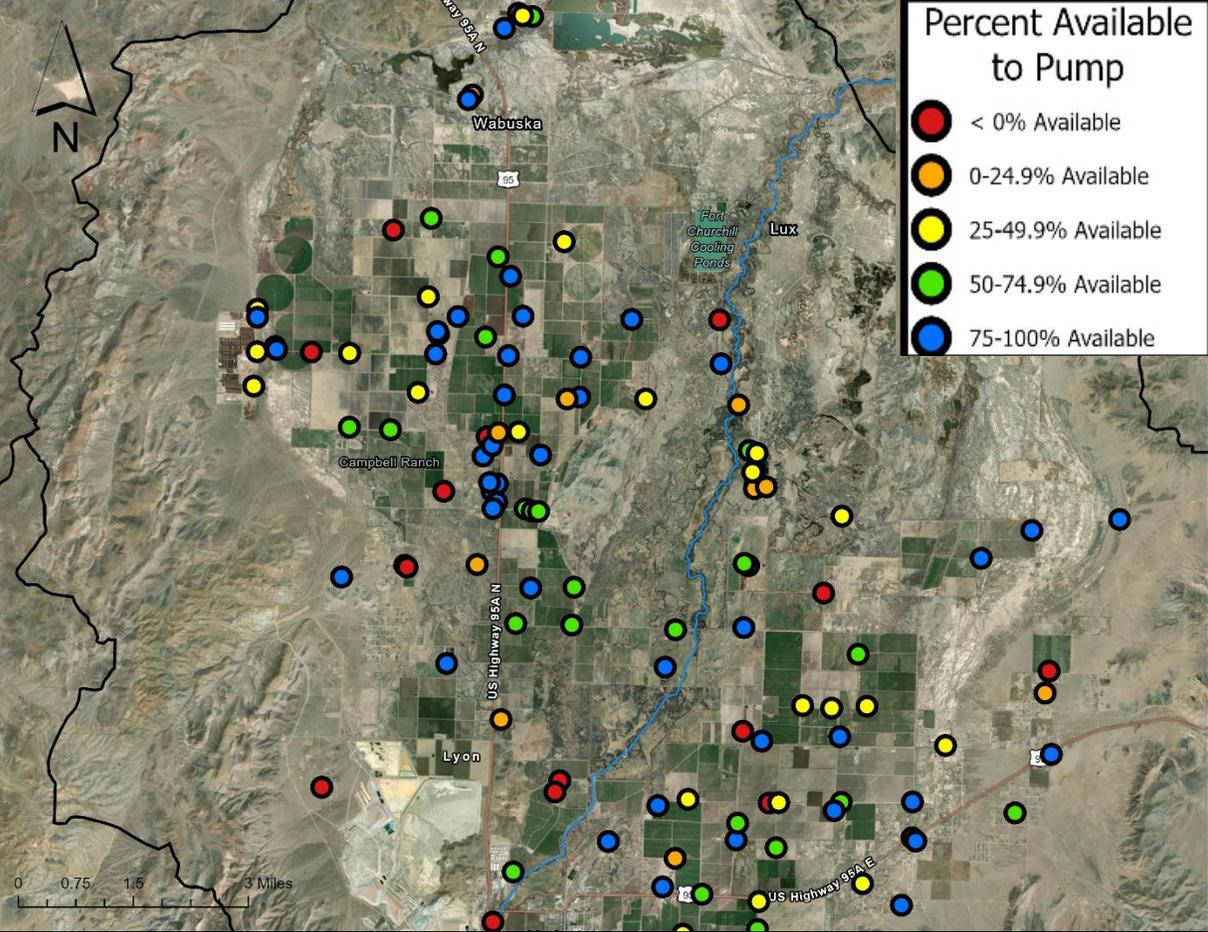
Who ever said nobody's perfect? 😊



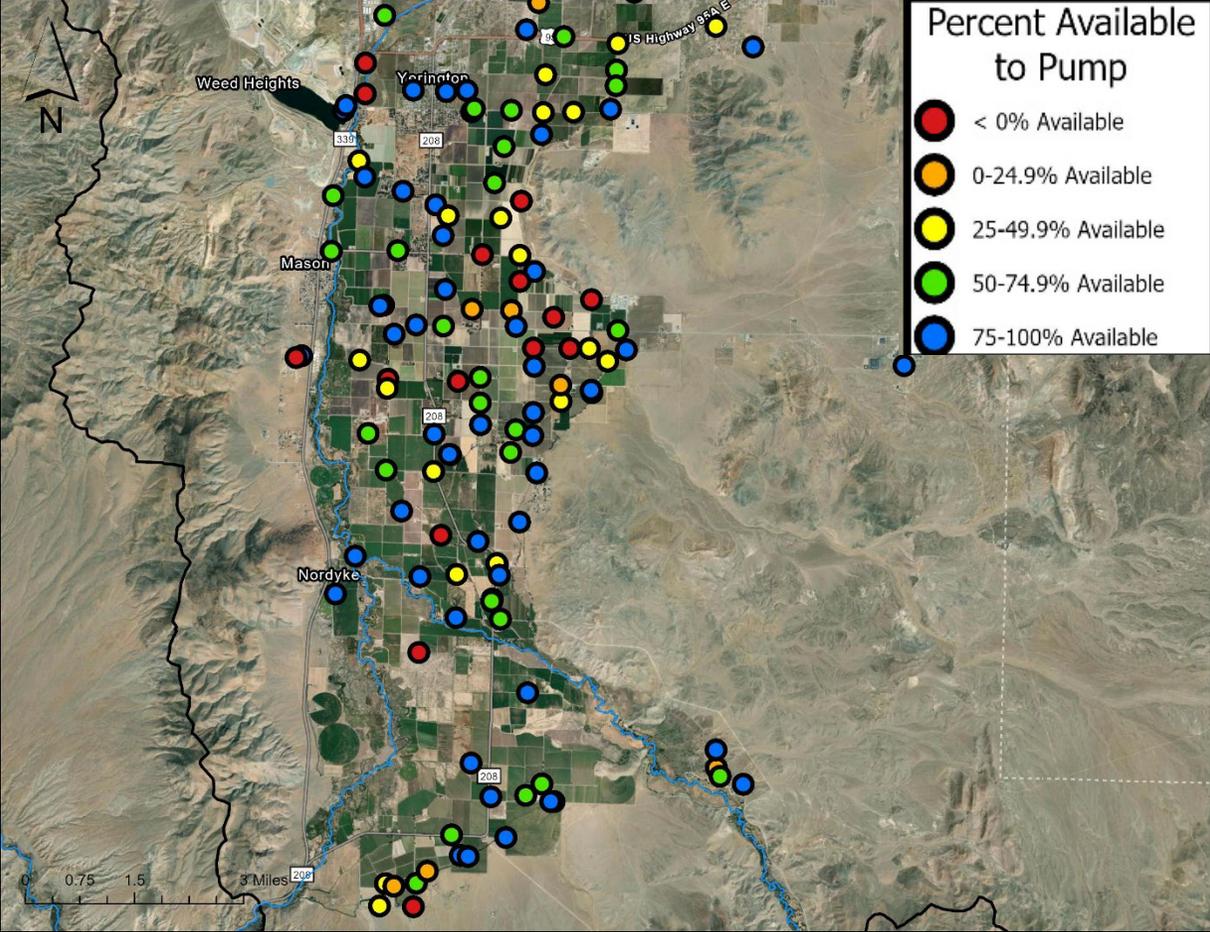
*Top 5 wettest years not used in this regression

MASON PUMPAGE MAP: END OF 2025

Northern Mason

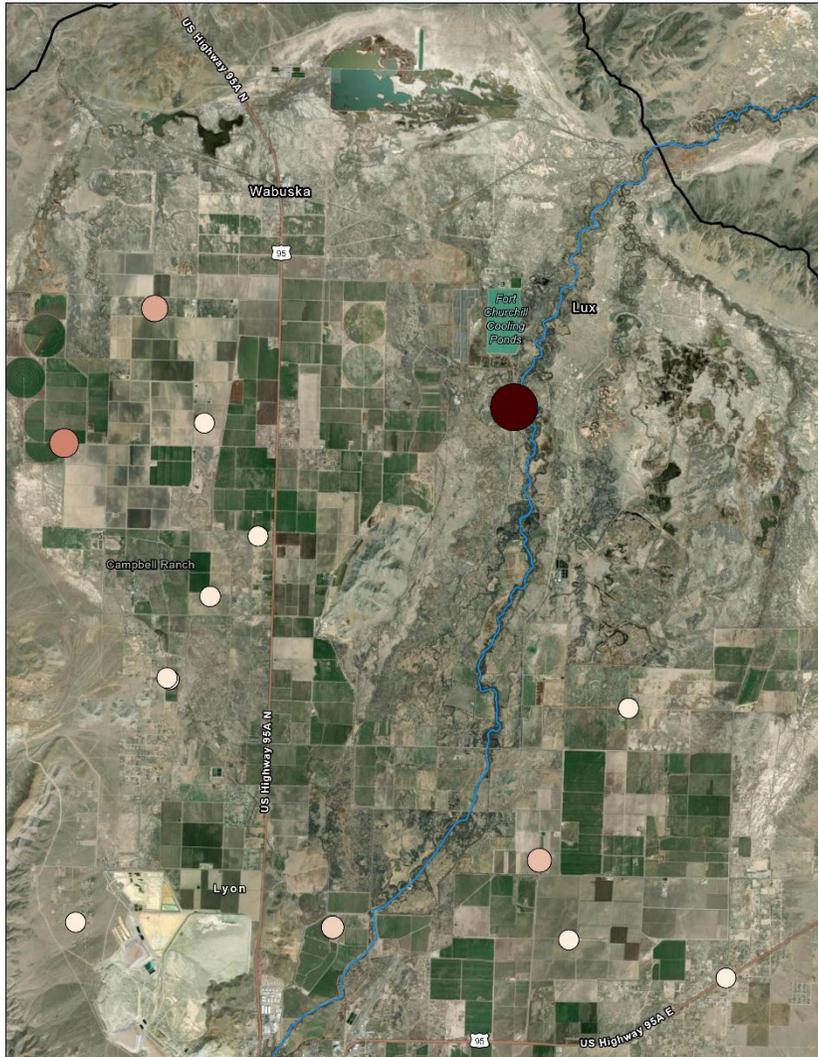


Southern Mason



MASON PUMPAGE MAP: OVERPUMPING IN 2025

Northern Mason

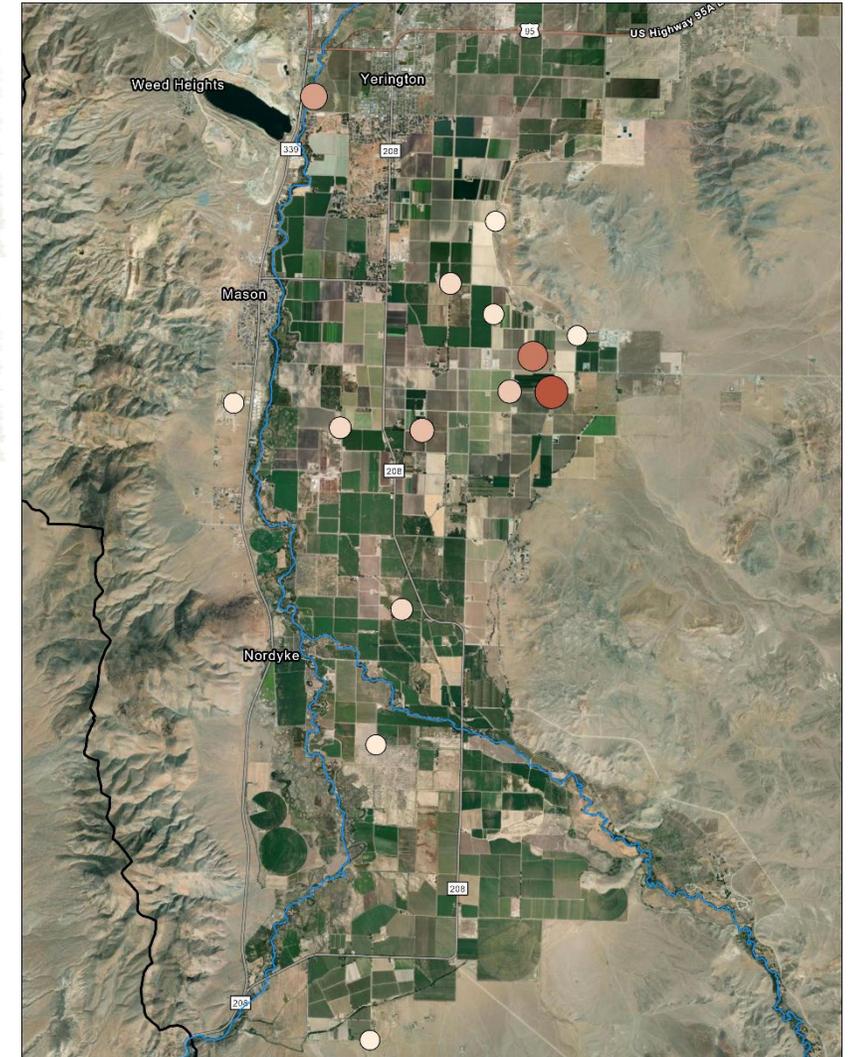


28 out of 230 metered wells over-pumped their duty

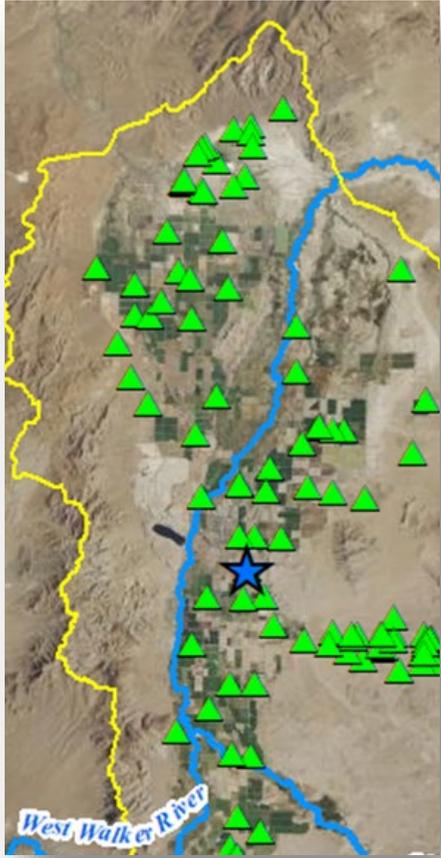
Total volume over-pumped was 3,500 AF

-  < 50 AF
-  50-100 AF
-  100 – 250 AF
-  250 – 500 AF
-  > 500 AF

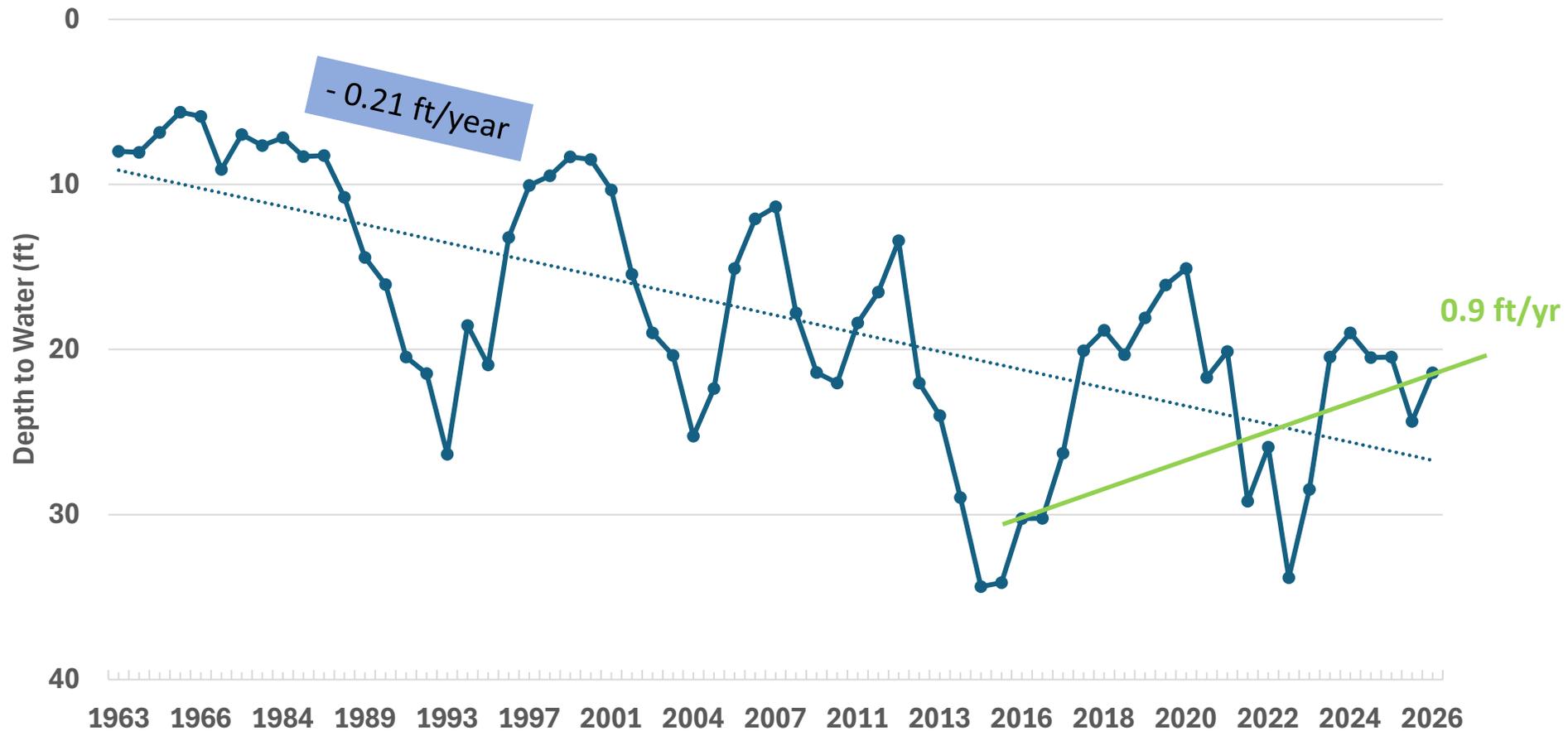
Southern Mason



MASON VALLEY WATER LEVELS

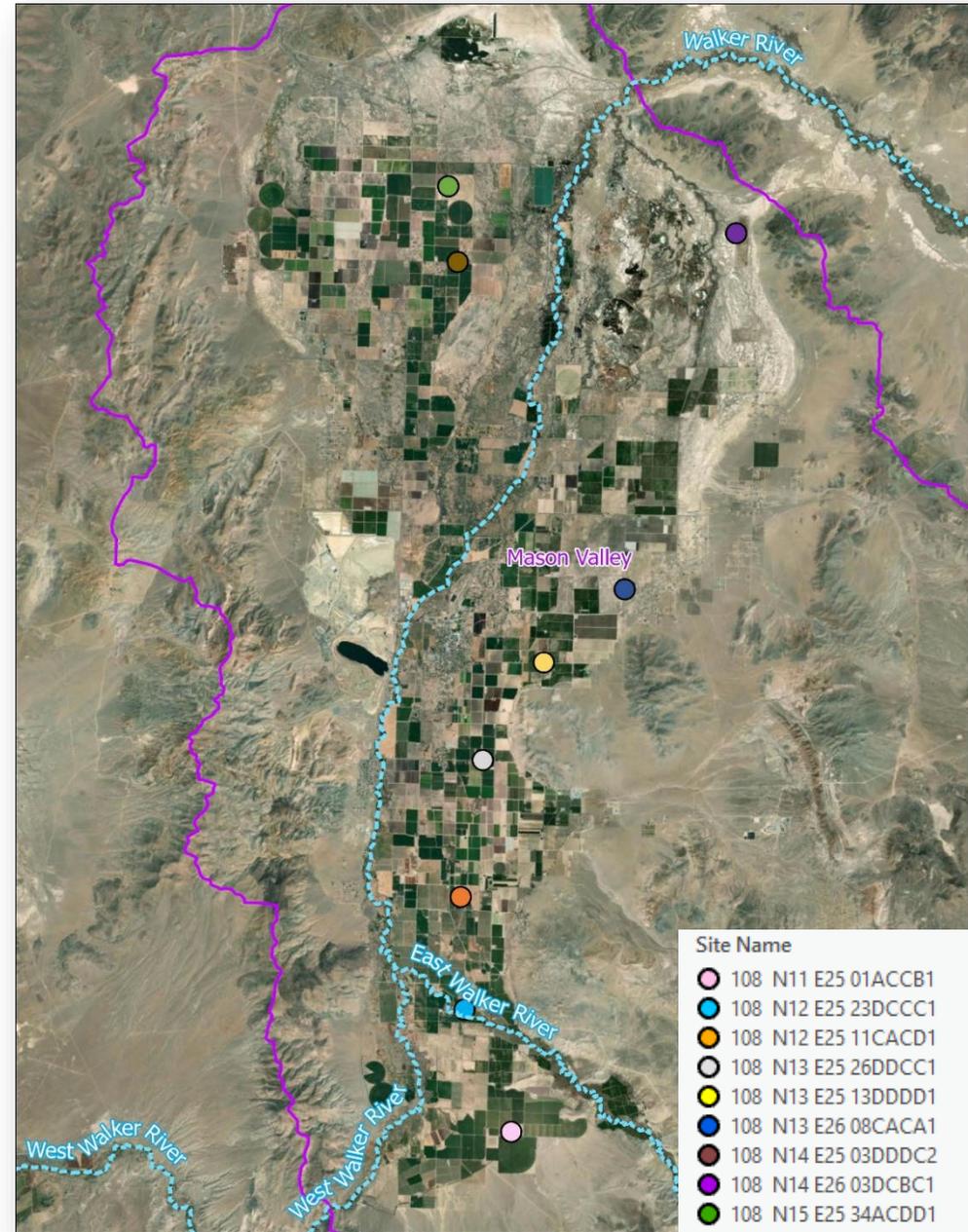
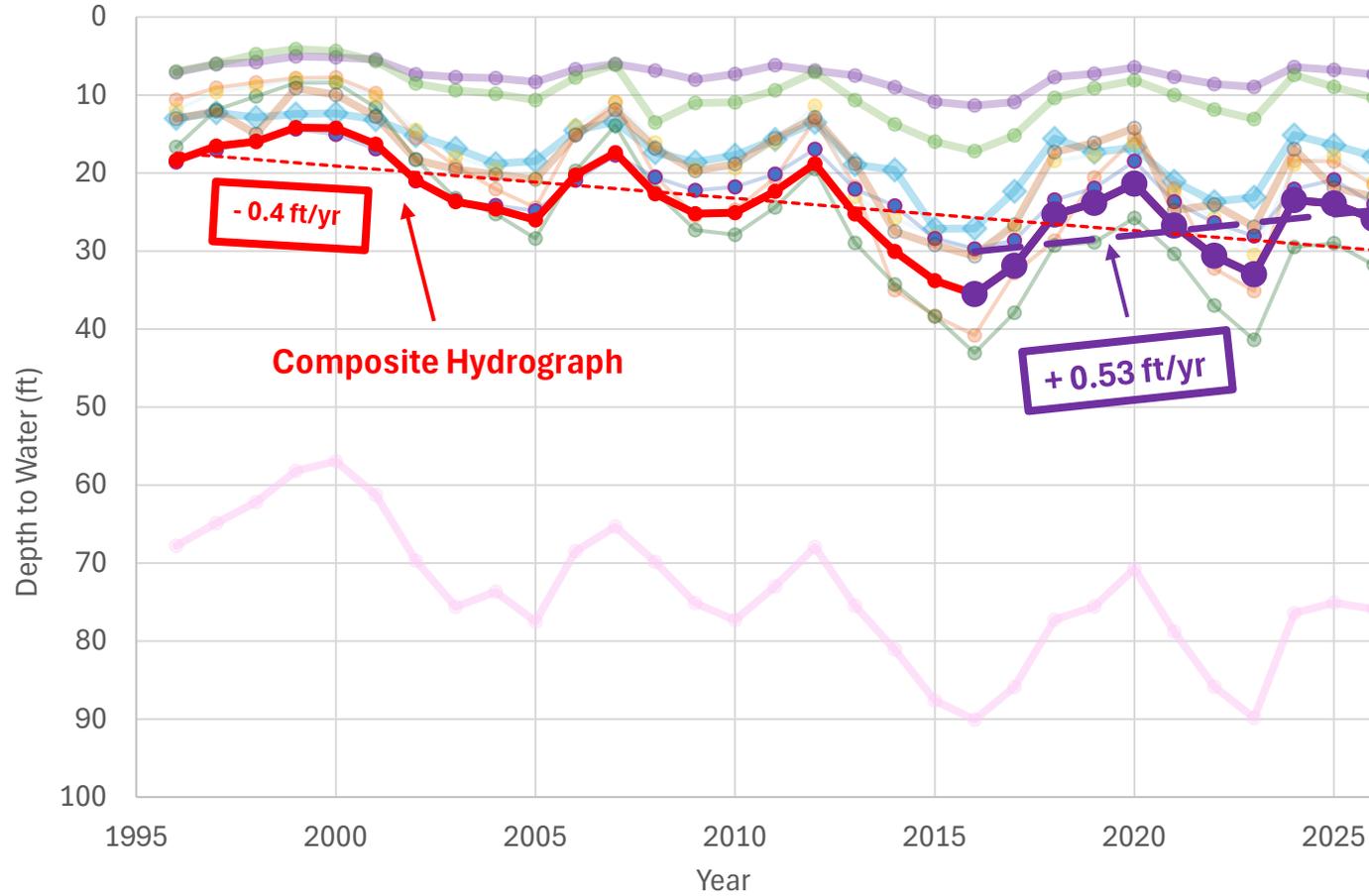


★ 108 N13 E25 23DDDC2



Average Mason Valley Water Level Changes (ft/yr)	
2025-2026	-2.9
2024-2025	0.1
2016-2026	0.7
2016-2025	1.1

MASON VALLEY WATER LEVELS SPRING 1996-2026

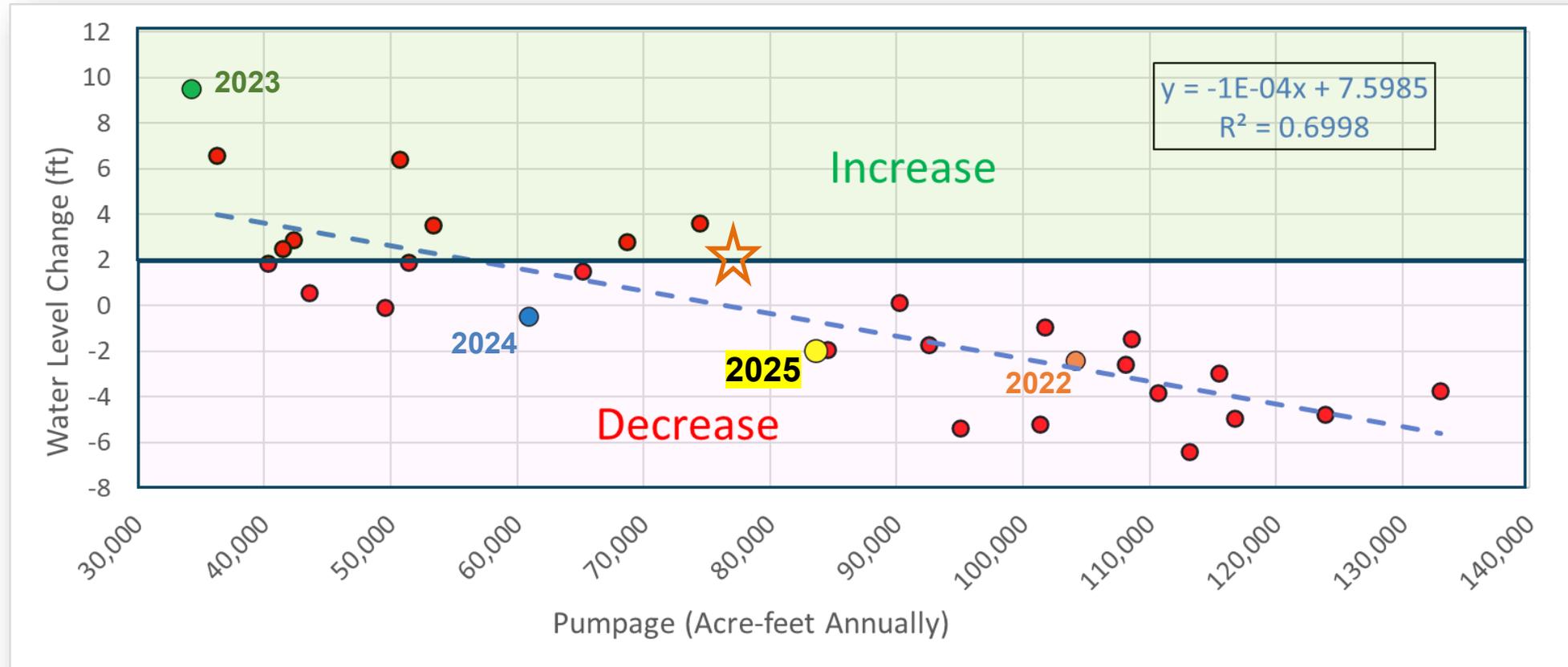


MASON VALLEY PUMPING VS. WATER LEVEL CHANGE

1996-2021 Average
Pumping: 81,256 AF

Estimated Average
Goal: <76,000 AF

Pumping Reduction
Goal is $\geq 5,250$
AF/year

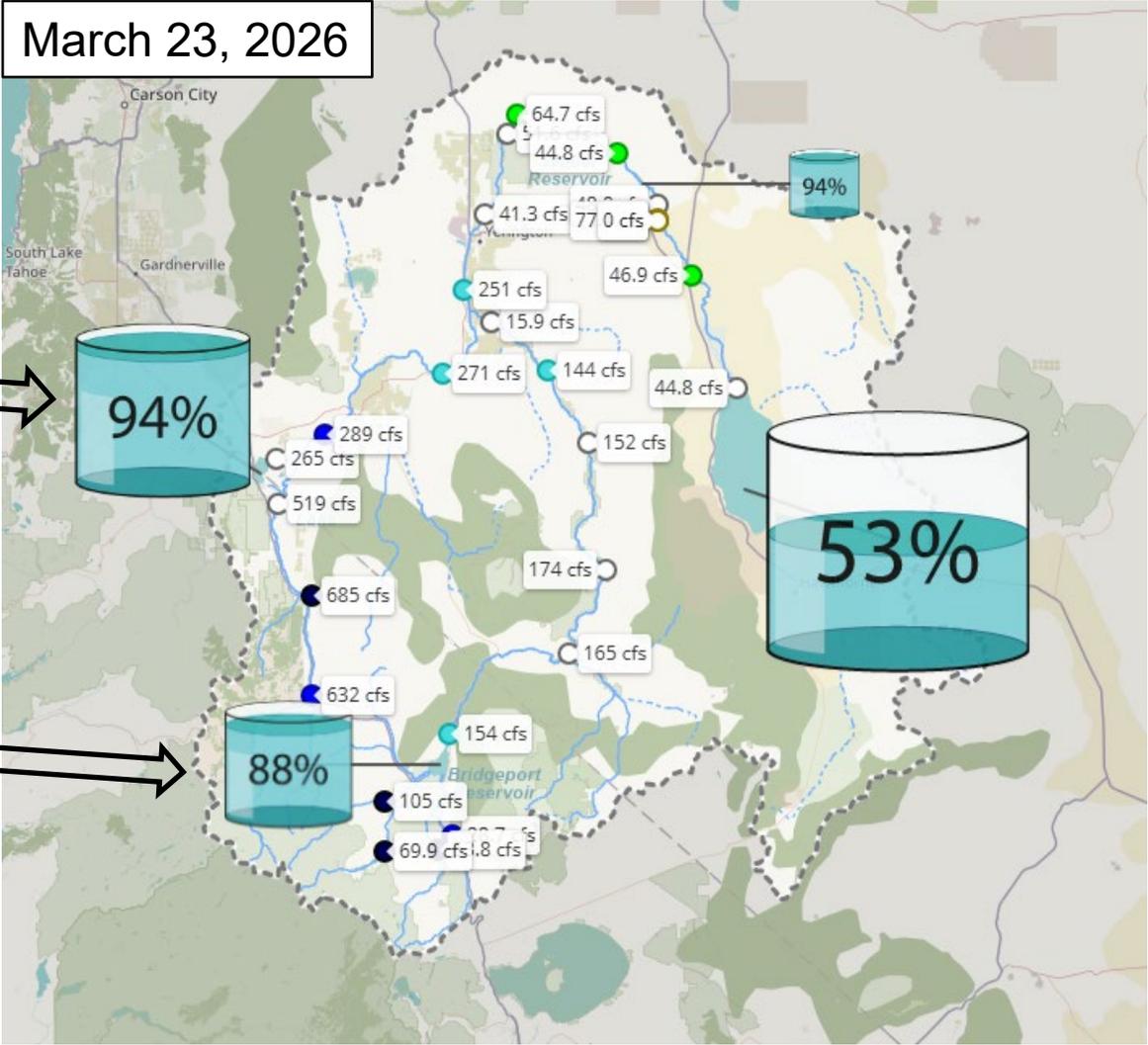


No water level change @ streamflow of ~ 242,000 AF (96-22 median = 155,400 AF)

WATER SUPPLY OUTLOOK



RESERVOIR STORAGE



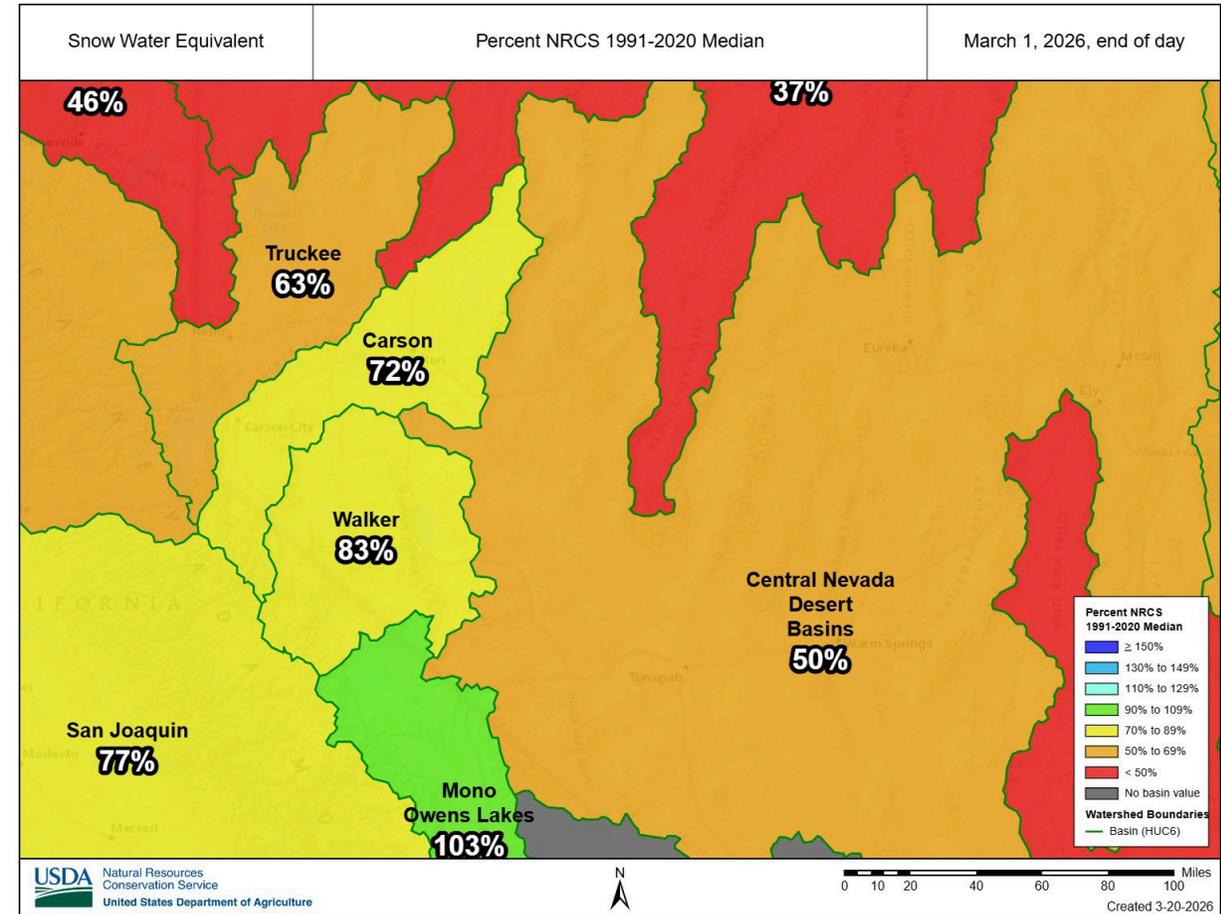
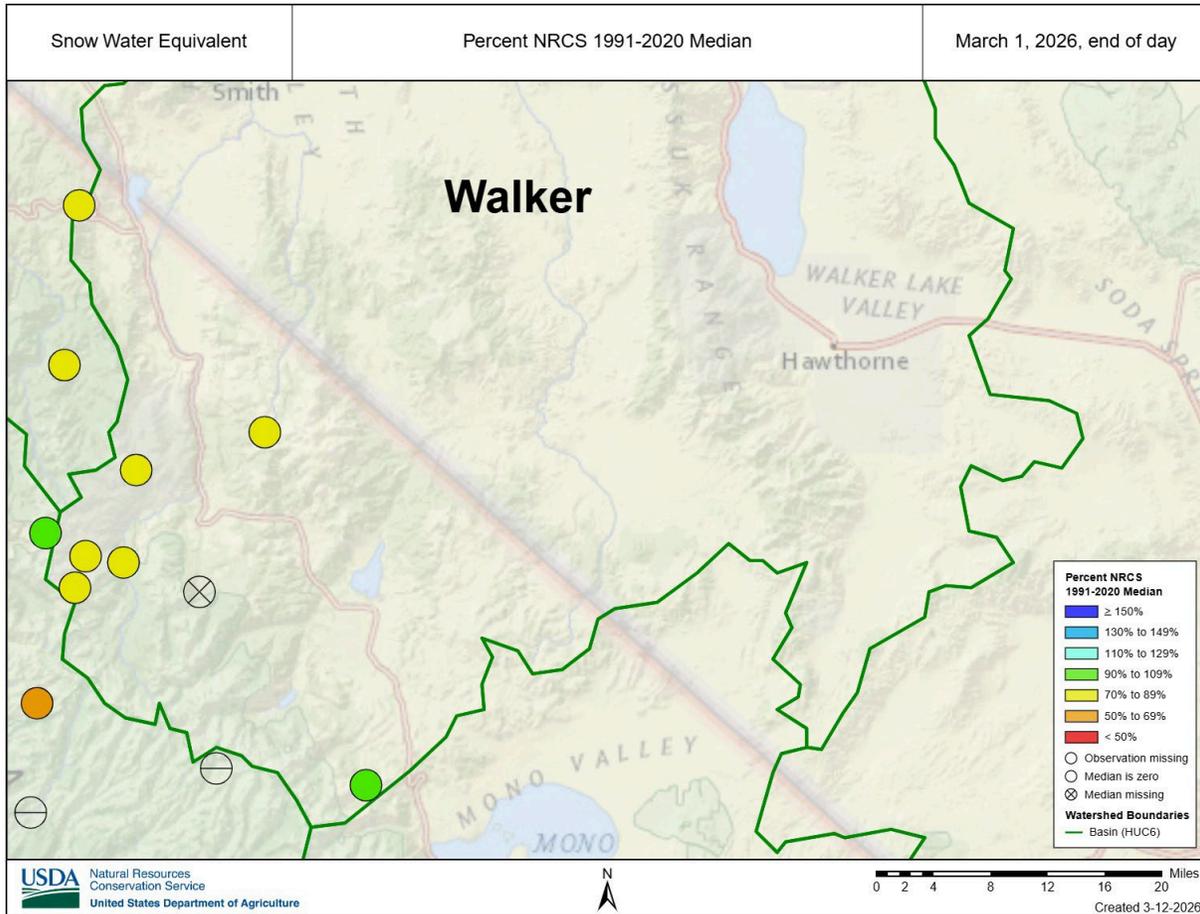
Up 39%



Up 25%



SNOW WATER EQUIVALENT (SWE), % OF MARCH 1 MEDIAN

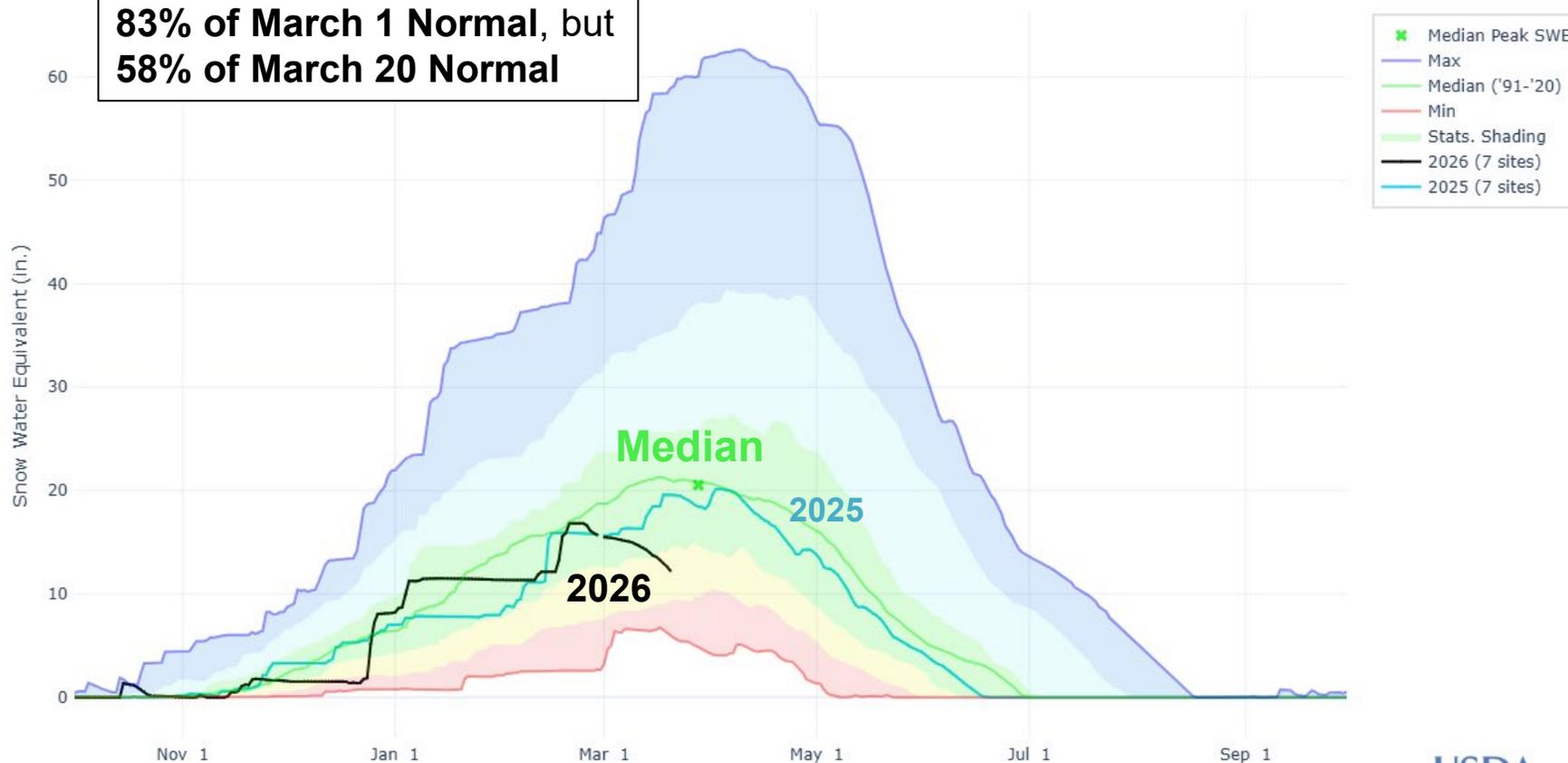


2026 WALKER SNOWPACK (SWE)

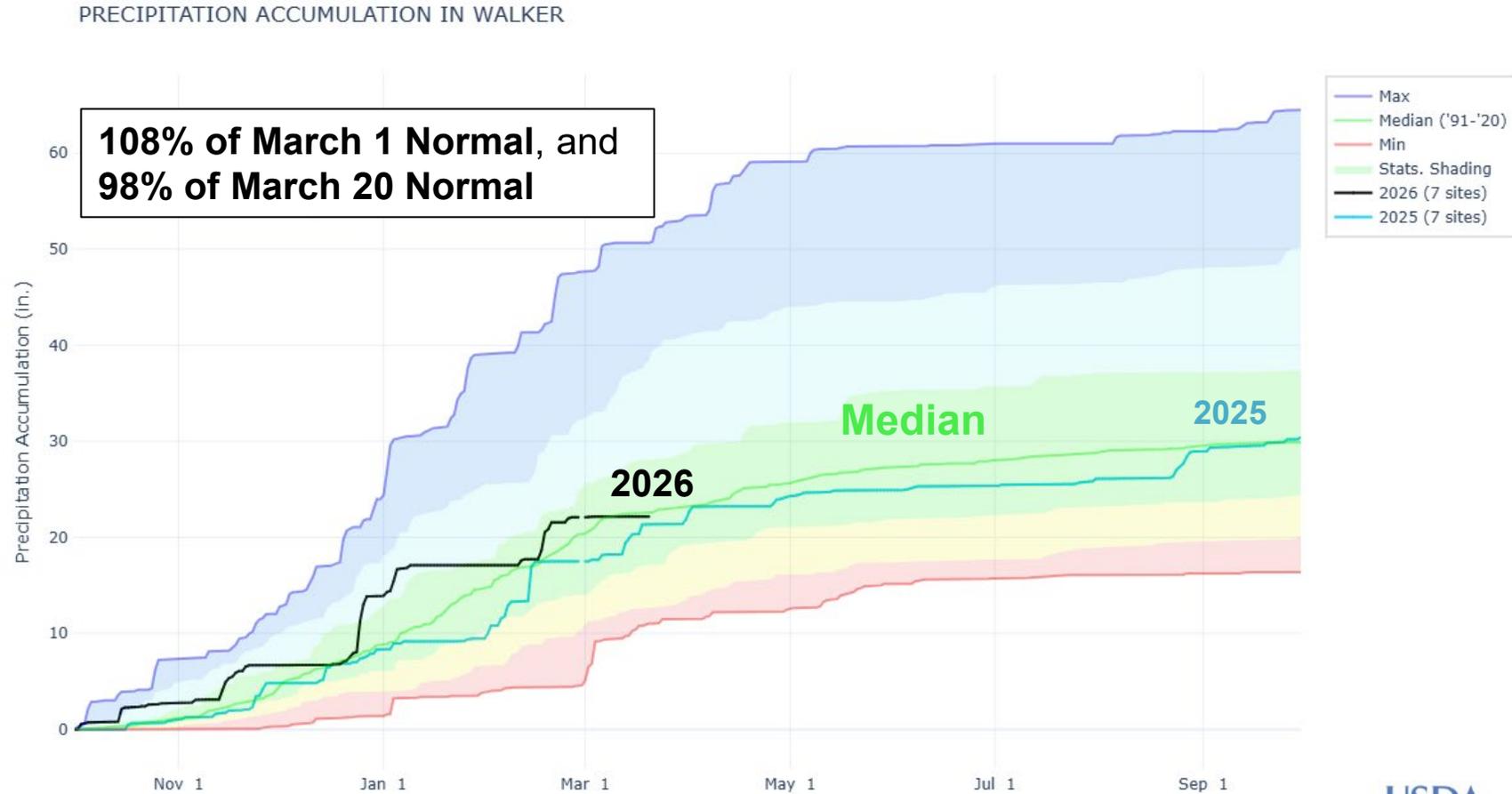


SNOW WATER EQUIVALENT IN WALKER

**83% of March 1 Normal, but
58% of March 20 Normal**

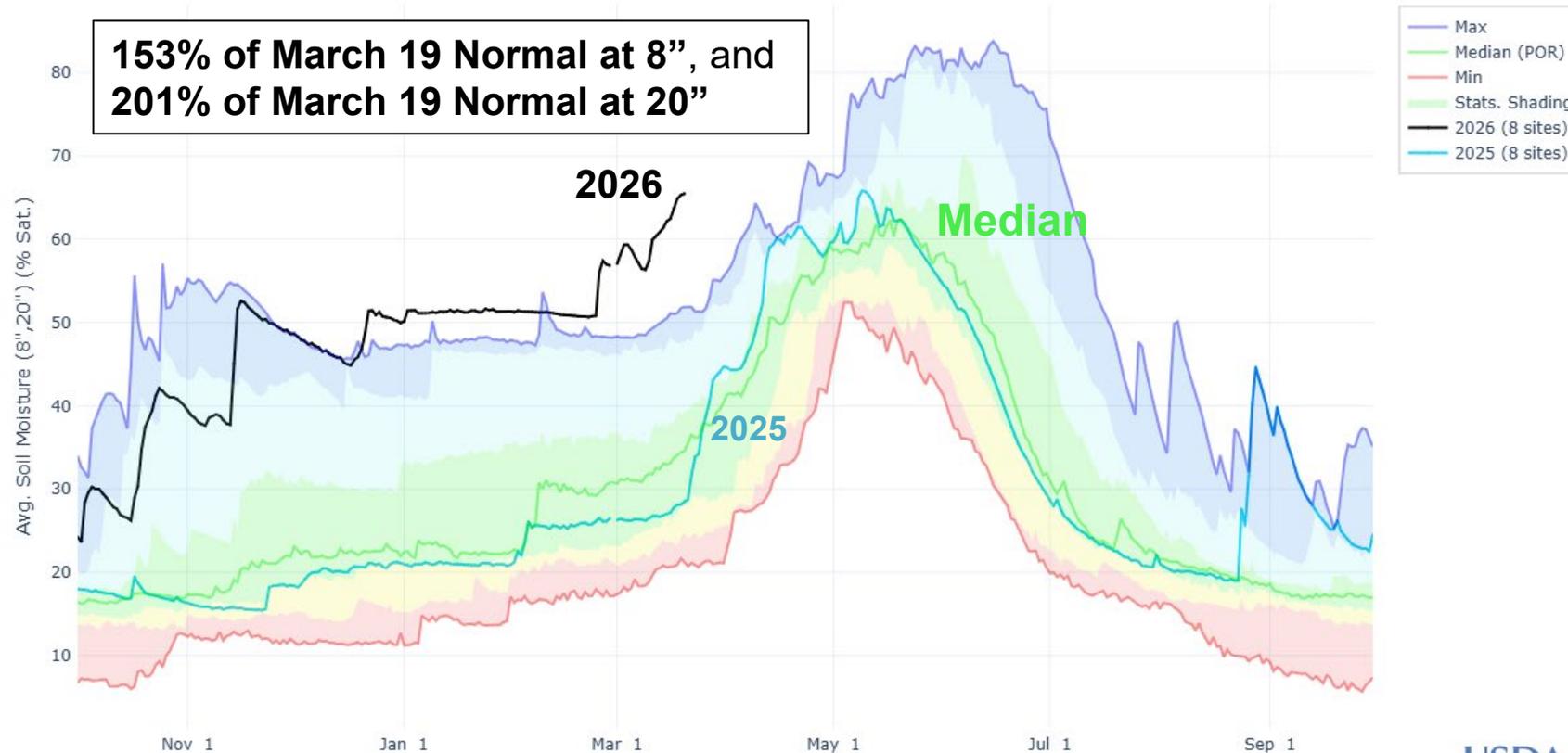


2026 WALKER PRECIPITATION



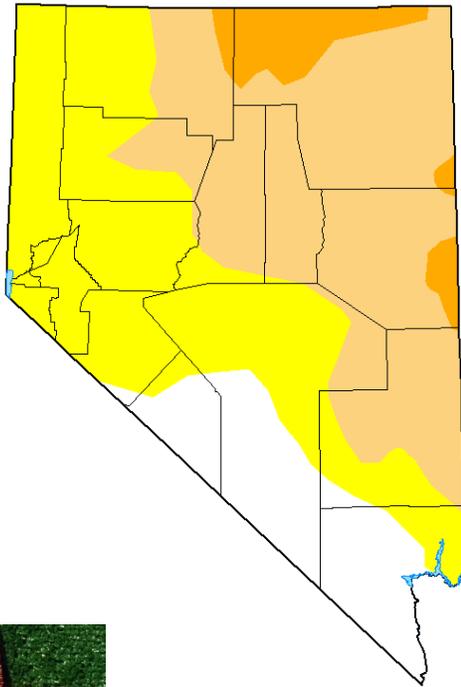
2026 WALKER SOIL MOISTURE

AVG. SOIL MOISTURE (8",20") IN WALKER

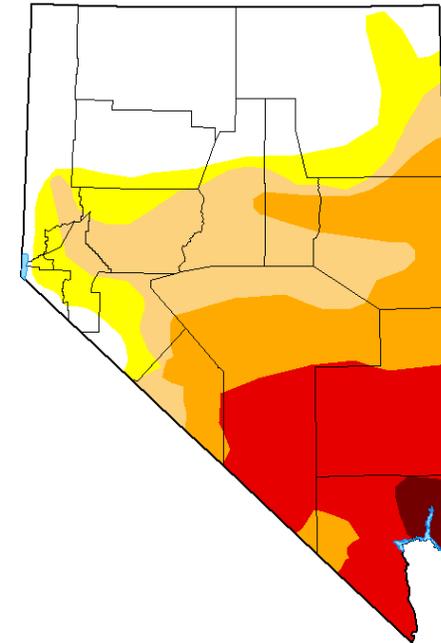


U.S. DROUGHT MONITOR

March 17, 2026



March 18, 2025



Intensity:

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

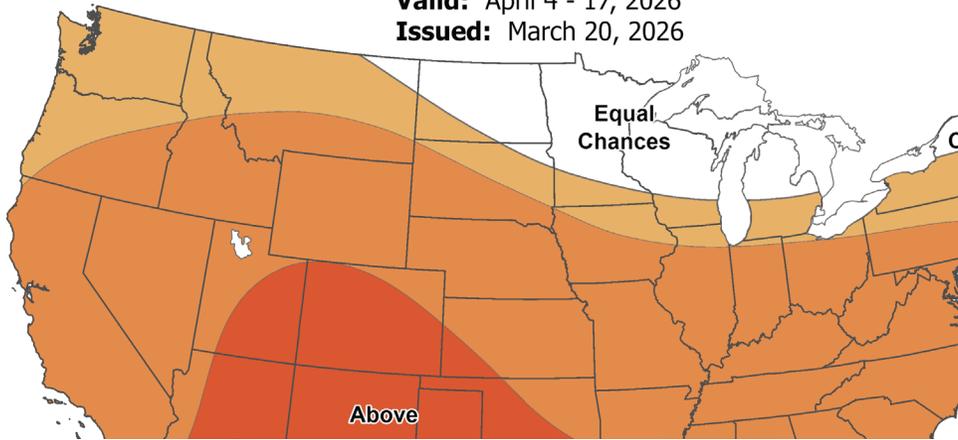


EARLY SEASON 2026 OUTLOOKS



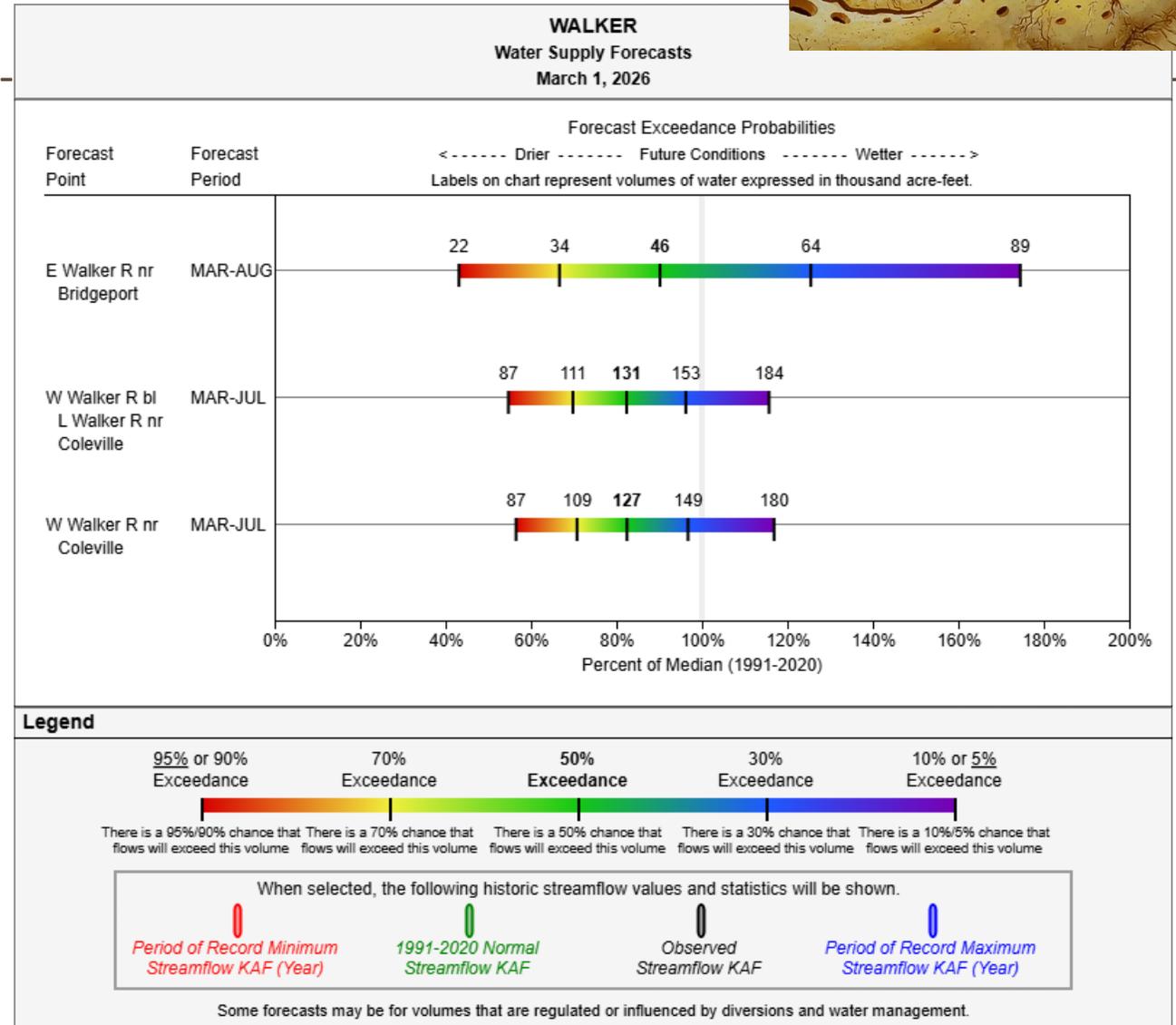
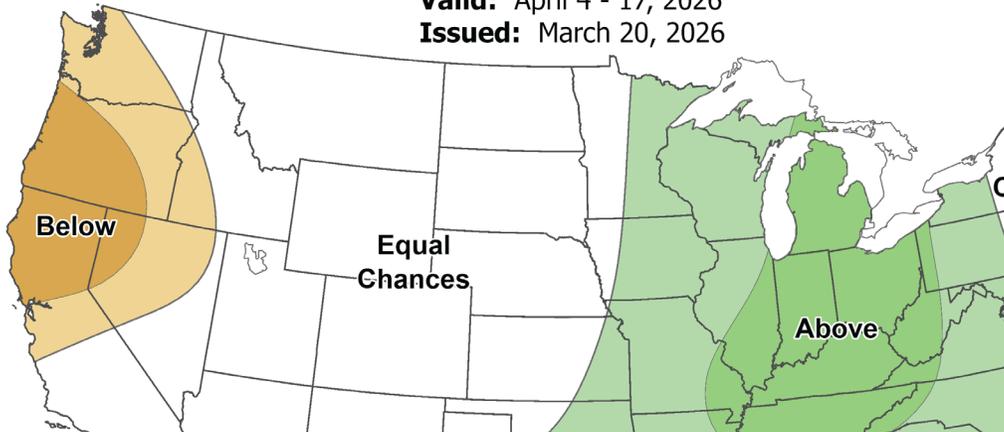
Week 3-4 Temperature Outlook

Valid: April 4 - 17, 2026
Issued: March 20, 2026



Week 3-4 Precipitation Outlook

Valid: April 4 - 17, 2026
Issued: March 20, 2026



2026 PUMPING GOALS - EXPERIMENTAL

PUMPING PREDICTION FOR 2026 (MARCH 1) – MASON VALLEY

$$\text{March Pre-Season Pumping Forecast} = -1.226 \cdot (0.55BP + 0.45TP) - 40,780 \cdot \text{SWE} + 159,593 - 5,250$$

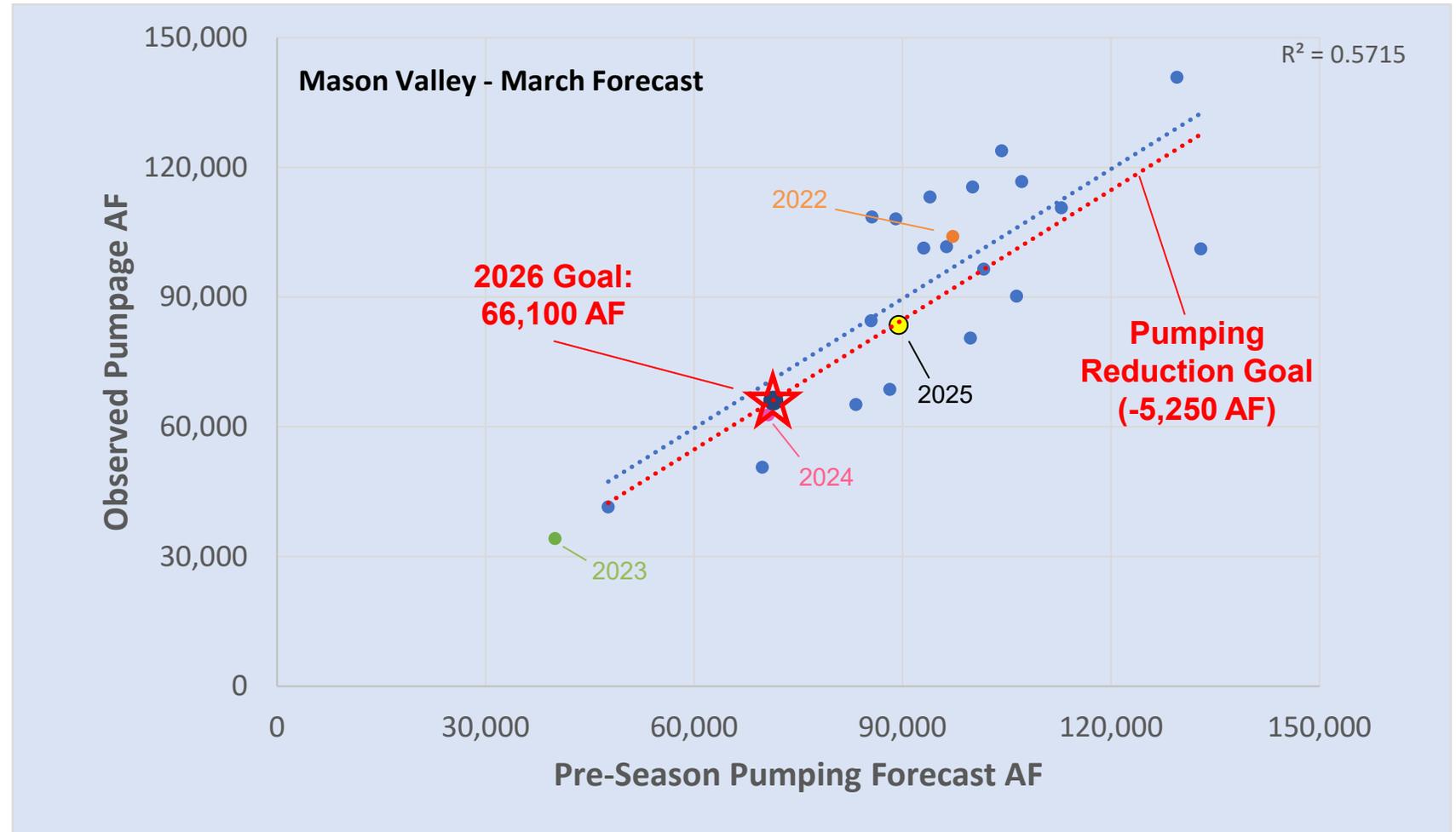
March 1 Observations of:

BP = Bridgeport Storage (37,290 AF)

TP = Topaz Storage (53,730 AF)

SWE = Walker Basin
Snow Water Equivalent (82%)

**2026 pumpage goal
for Mason Valley is
< 66,100 AF.**



PUMPAGE GOAL VS. TOTAL COMMITMENTS

2026 Pumpage Goal for Mason Valley: 66,100 AF

- Groundwater commitments: ~159,593 AF
 - Irrigation groundwater commitments: ~114,343 AF

2026 pumpage goal is about 41% of the total groundwater commitments in the basin and about 82% of the average pumpage in the basin (based on 1994-2025)

SUMMARY AND OUTLOOK

SUMMARY FOR 2025 SEASON

- 2025 pumping greater than 2024 (as expected).
- Pumpage goals ~perfectly~ met in both Smith and Mason Valleys.
- Groundwater levels declined more than expected in each valley, so pumpage goals may need to be revised lower.
- Long-term hydrographs still show declining trends, but management period (2016 – 2026) has increasing trend.





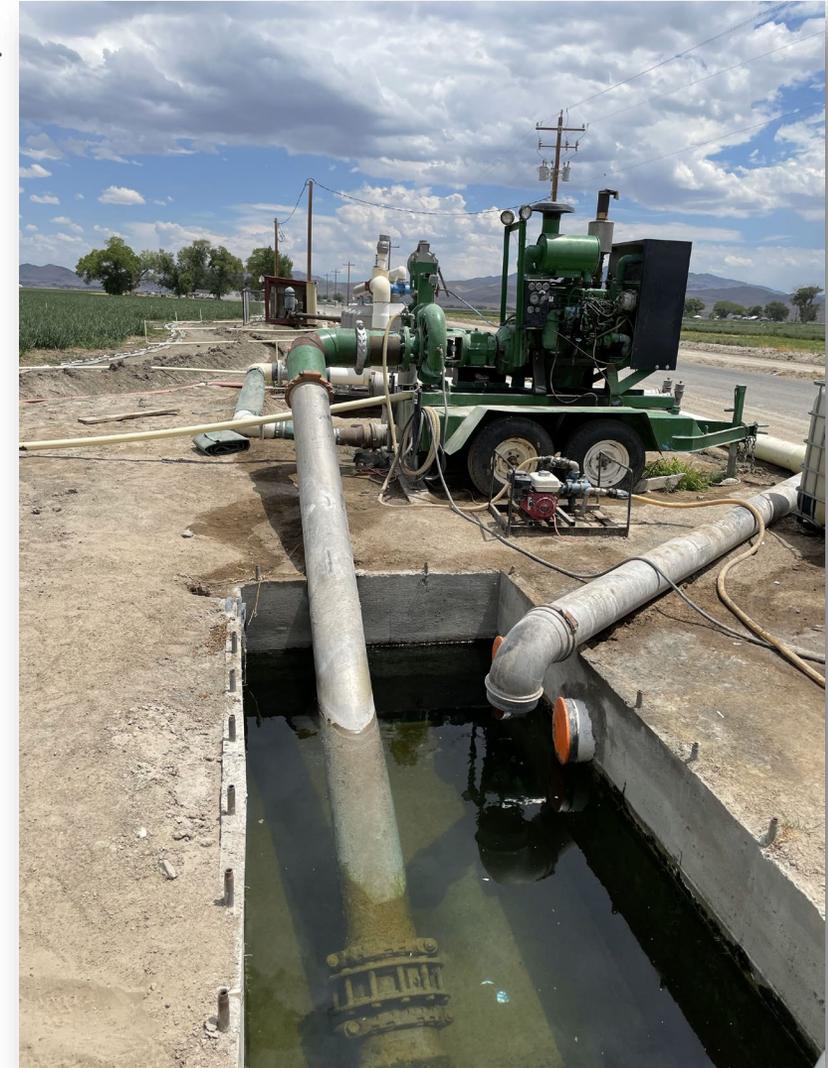
OUTLOOK FOR 2026 SEASON

BLUF: It will be much harder to meet the 2026 pumpage goal

(Bottom Line Up Front)

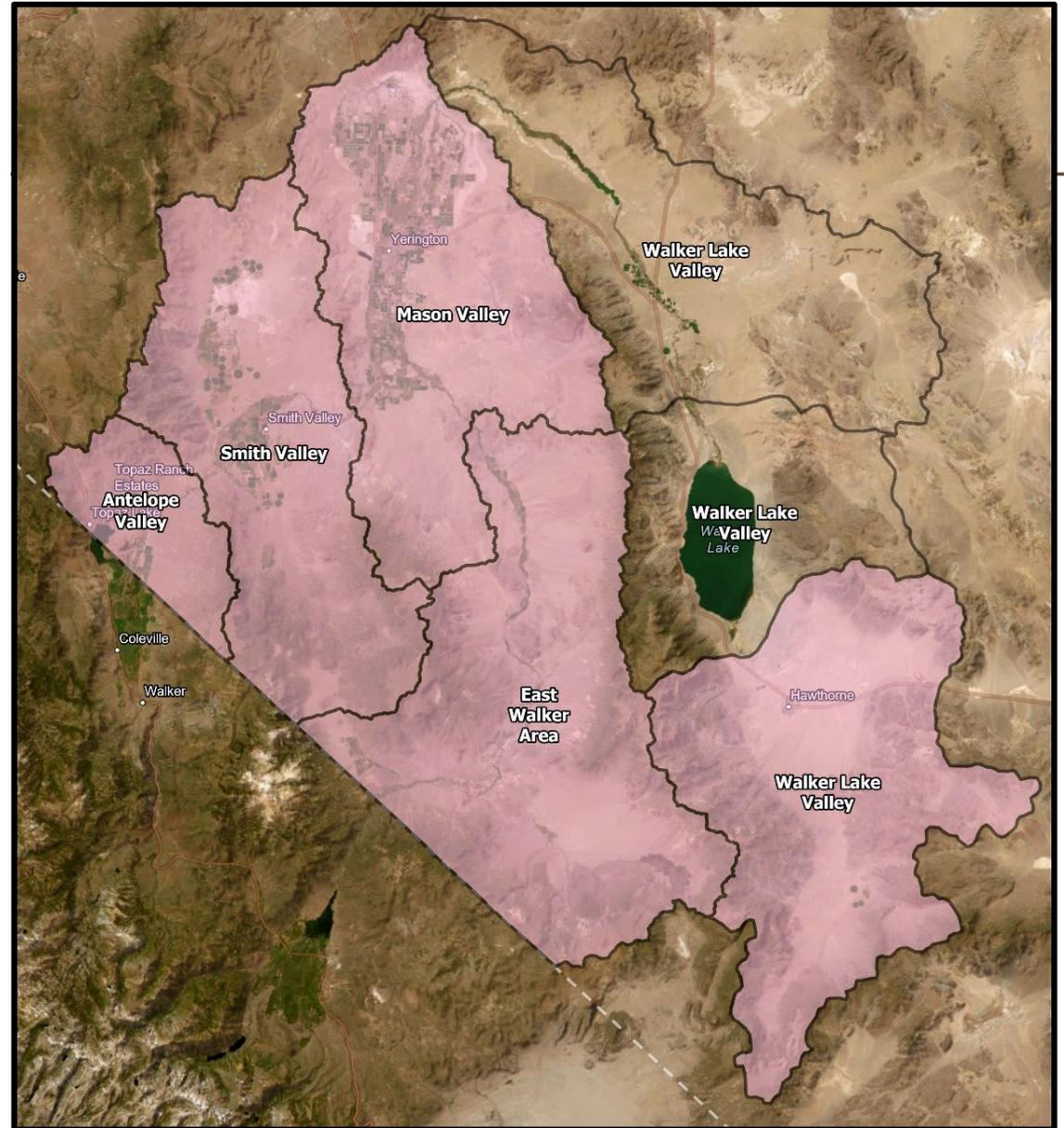
- WY26 has tracked similarly to WY25 through February, but the unseasonably warm and dry March is leading to early and rapid snowmelt.
- Aiming for less supplemental pumping this year due to higher reservoir levels, but this also depends on runoff patterns and valley soil moisture.
- Peak discharge likely to occur earlier, causing decree to fall off fast and wells to turn on sooner (which we are already seeing)
- Maximize opportunities to turn off your wells (e.g., do not irrigate on rainy days)

2026 pumpage goal for Mason Valley is < 66,100 AF.



EXTRA, EXTRA! READ ALL ABOUT IT!

- East Walker Designation and Meter & Reporting Order
 - East Walker Area (Basin 109) was designated on June 23, 2025
 - Enables enhanced management by the State Engineer
 - No new appropriations allowed in the basin (with minor exceptions)
 - Also issued a meter and reporting order on June 23, 2025
 - East Walker Area is now within the same management scheme as Smith and Mason Valleys
- New State Engineer – Joe Cacioppo



Questions?



Contact



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