

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

Updated: April 3, 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

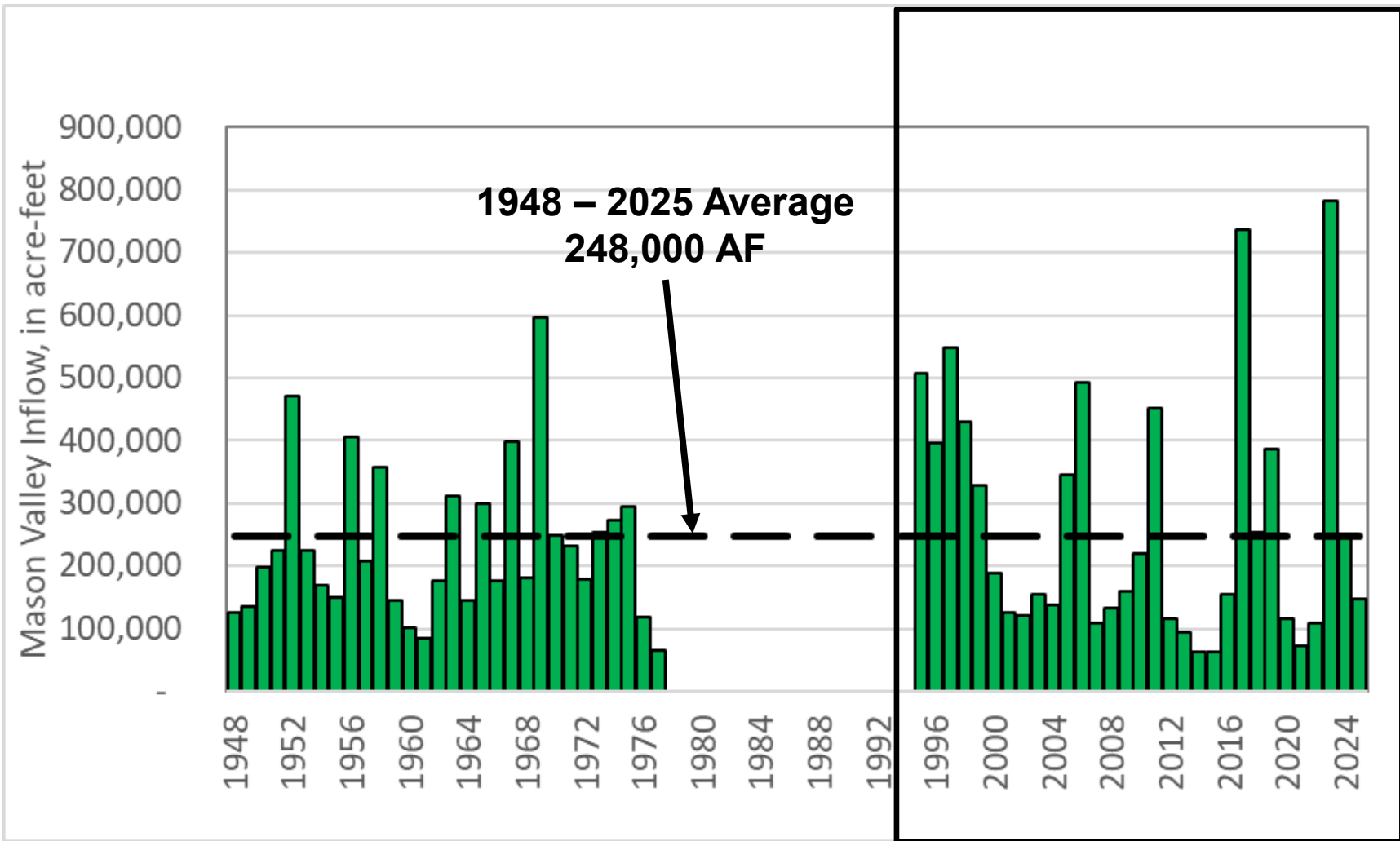
- Recap of 2025 runoff
- Pumping and water levels for 2025
- Current water supply conditions
- Pumping goals for 2026
- Summary and Outlook



RECAP OF 2025 RUNOFF SEASON

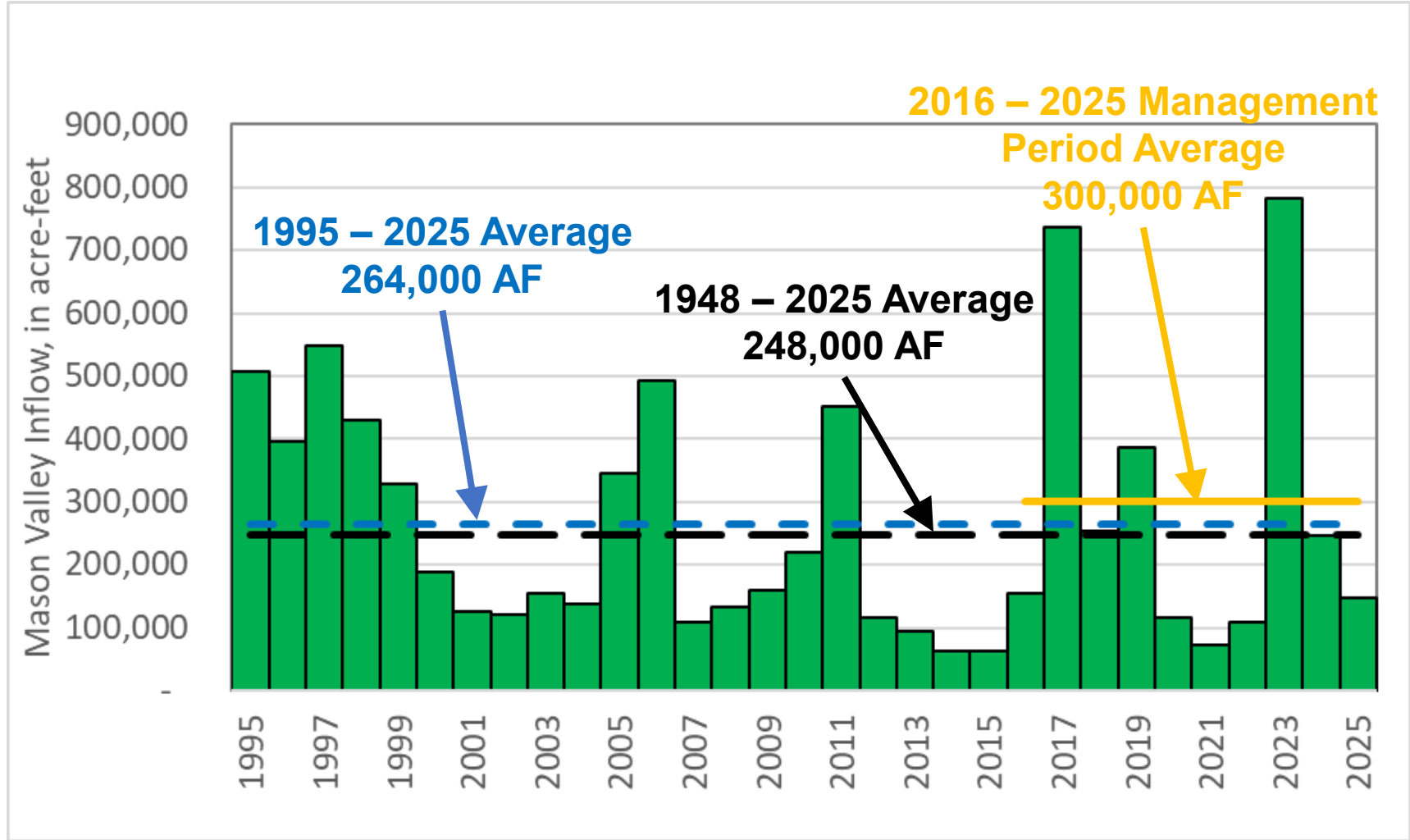
WALKER RIVER INFLOW TO MASON VALLEY – FULL PERIOD

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



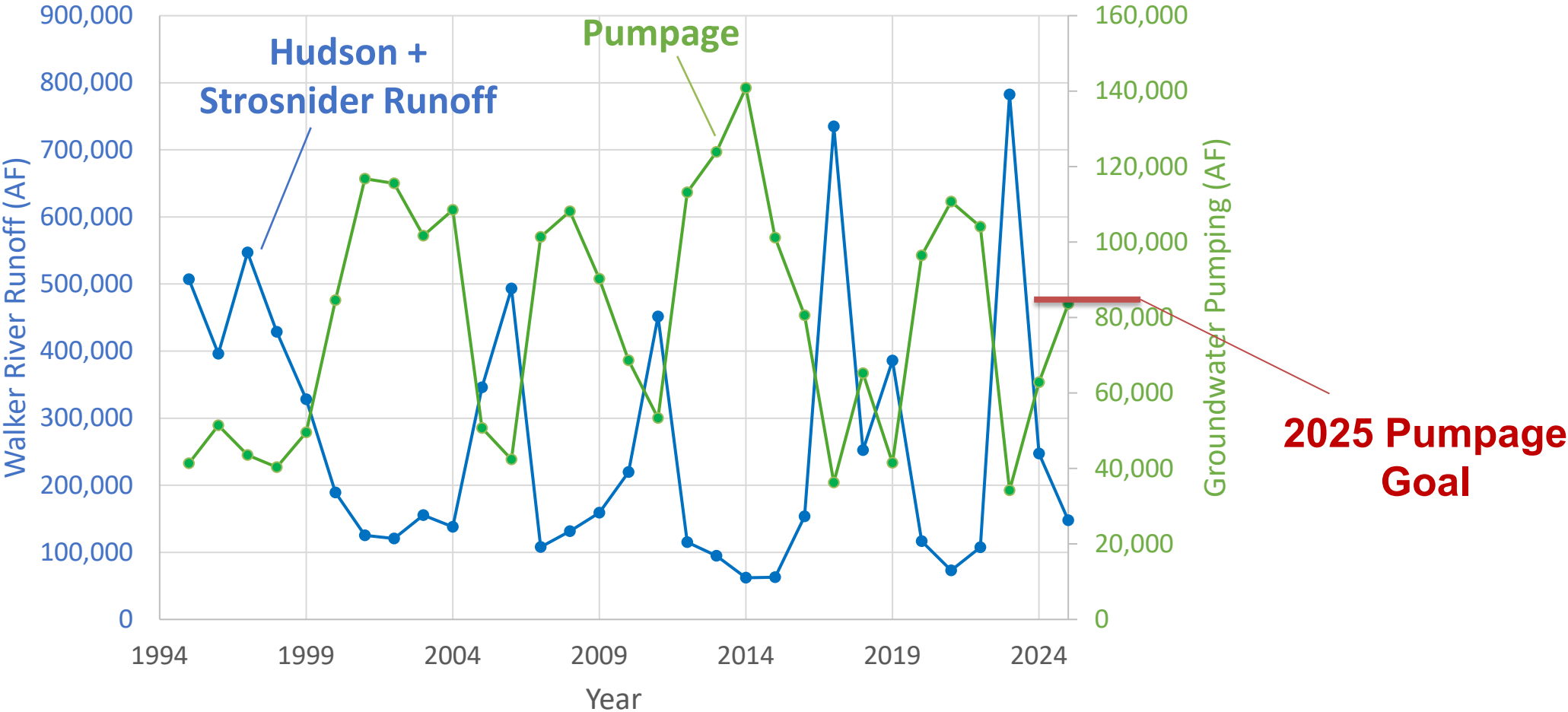
WALKER RIVER INFLOW TO MASON VALLEY – LAST 30 YEARS

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

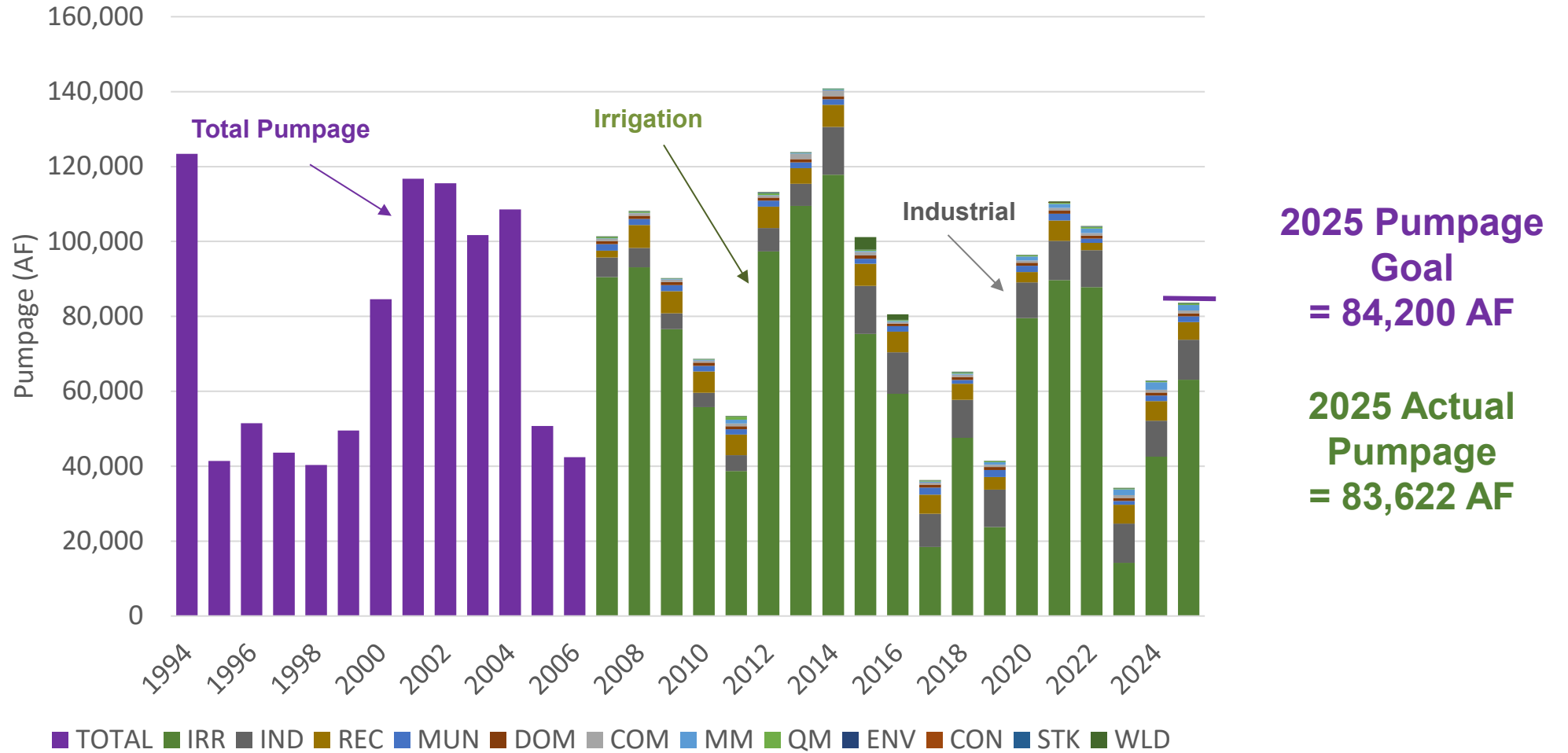


2025 PUMPING AND WATER LEVEL REVIEW

WALKER RIVER STREAMFLOW VS. MASON VALLEY PUMPING



MASON VALLEY TOTAL PUMPAGE



*2025 pumpage data are provisional and subject to revision.

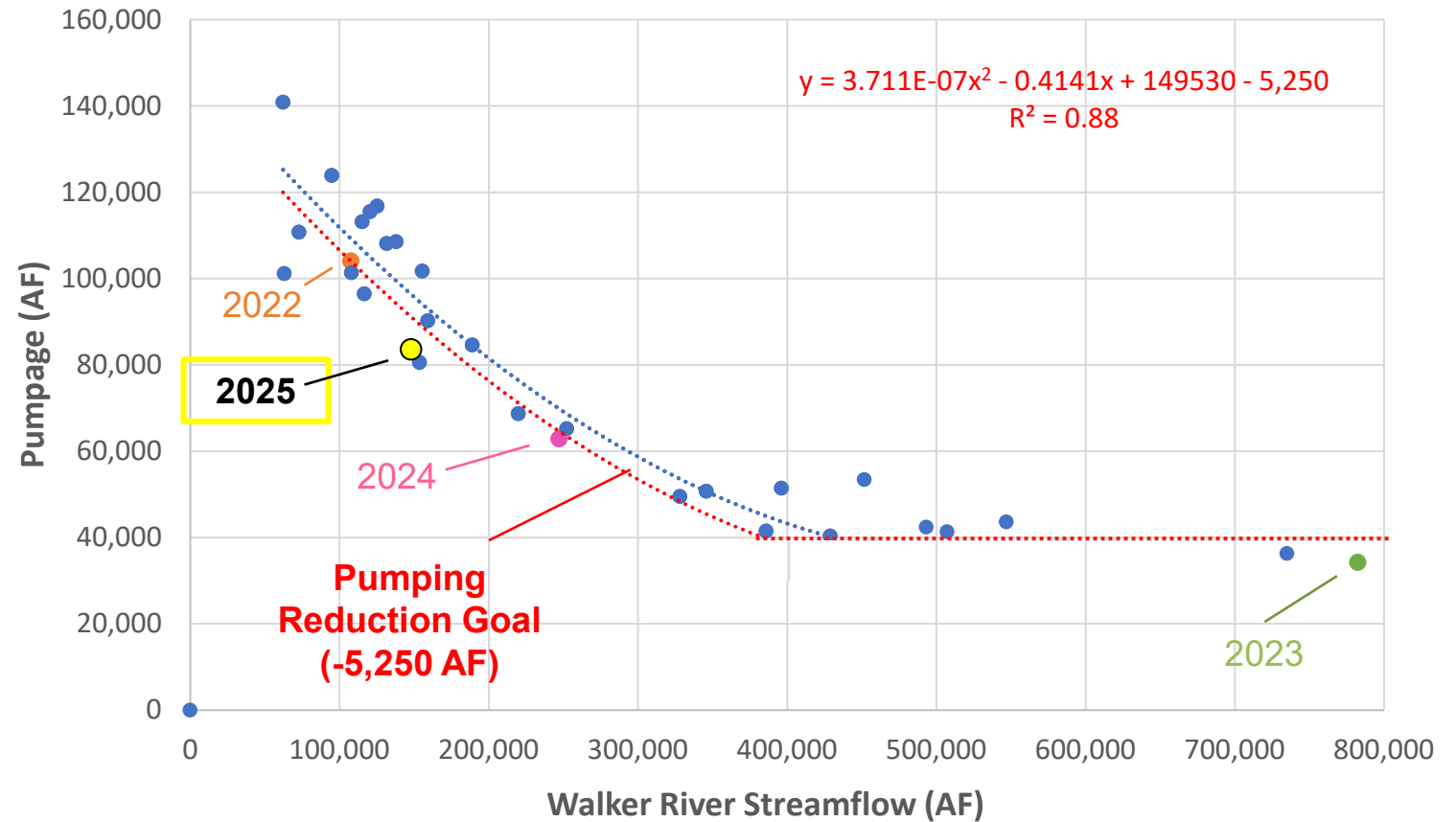
PUMPING PREDICTION 2025 REVIEW – MASON VALLEY



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

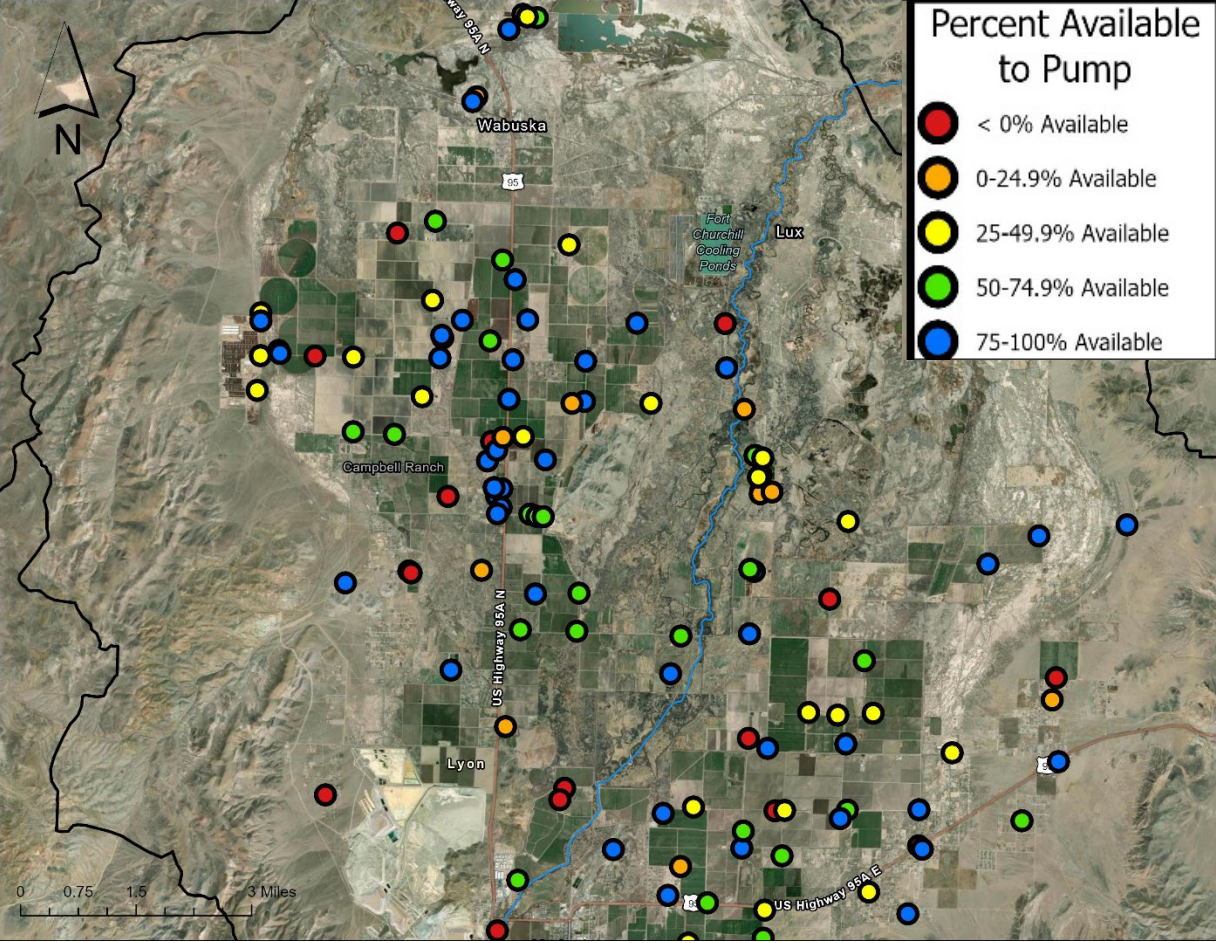
Who ever said nobody's perfect? 😊



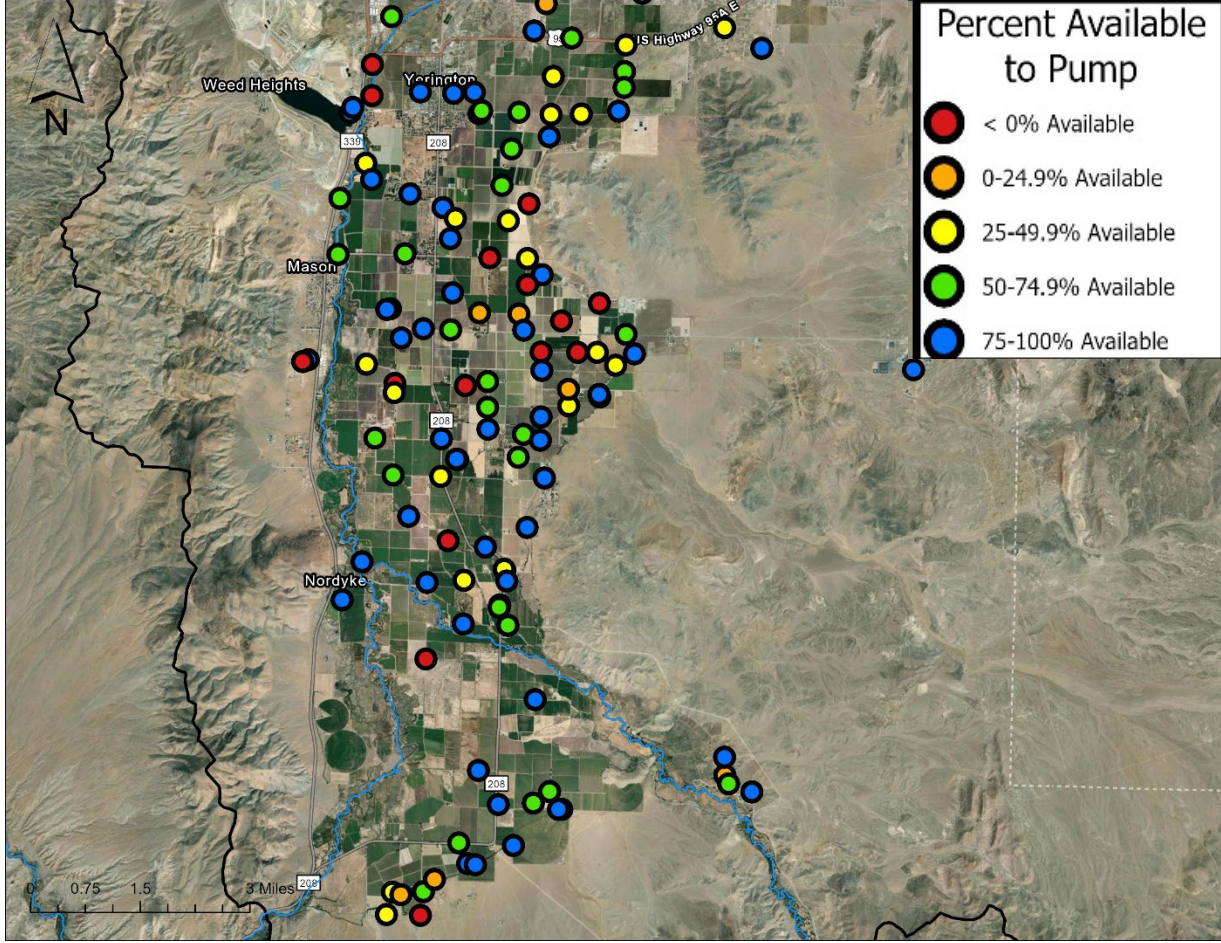
*Top 5 wettest years not used in this regression

MASON PUMPAGE MAP: END OF 2025

Northern Mason

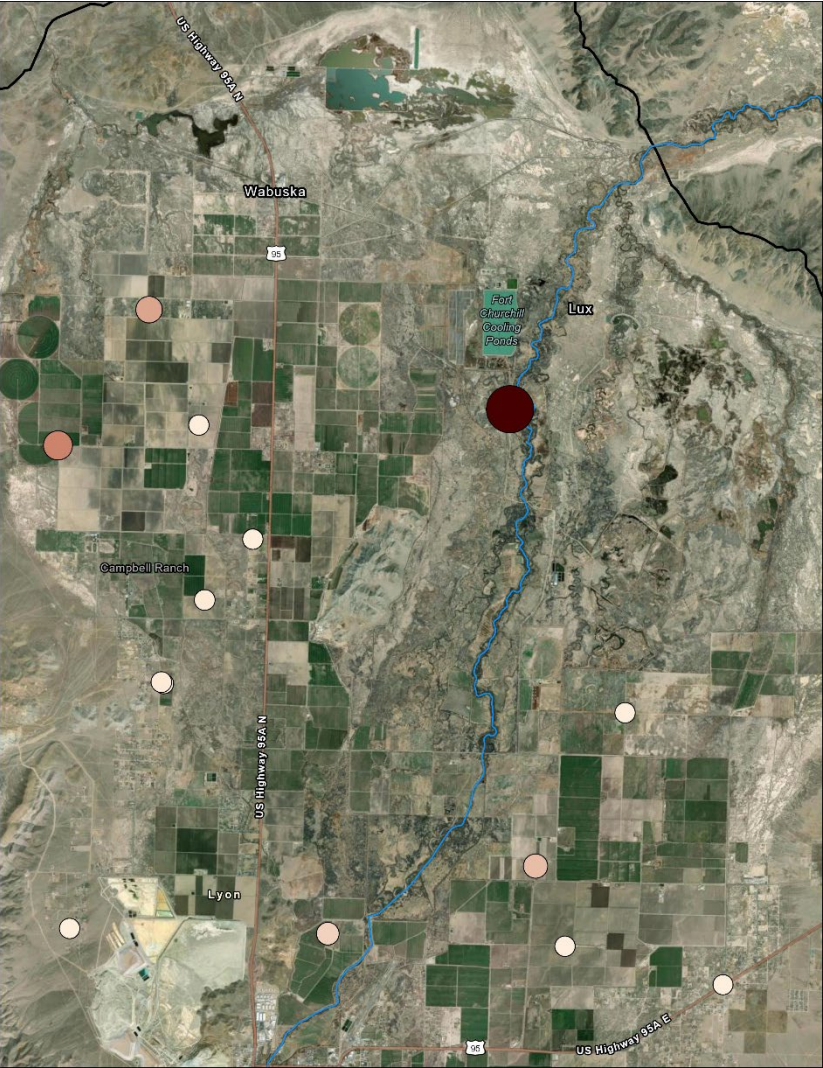


Southern Mason



MASON PUMPAGE MAP: OVERPUMPING IN 2025

Northern Mason

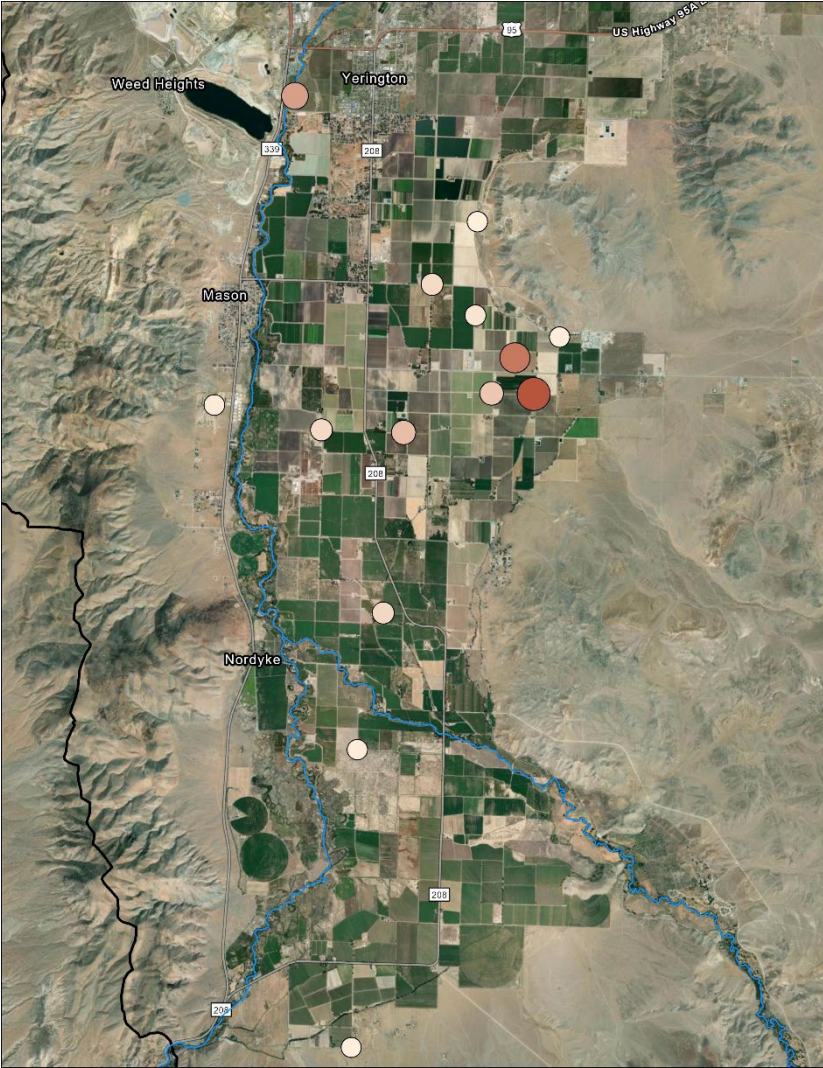


28 out of 230 metered wells over-pumped their duty

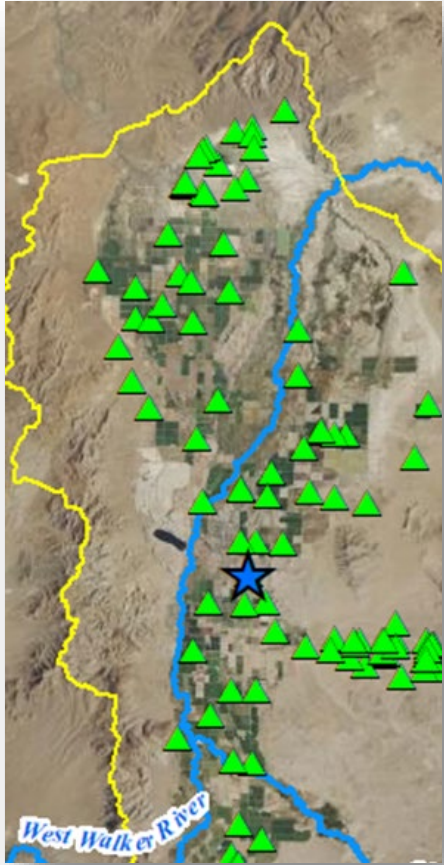
Total volume over-pumped was 3,500 AF

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

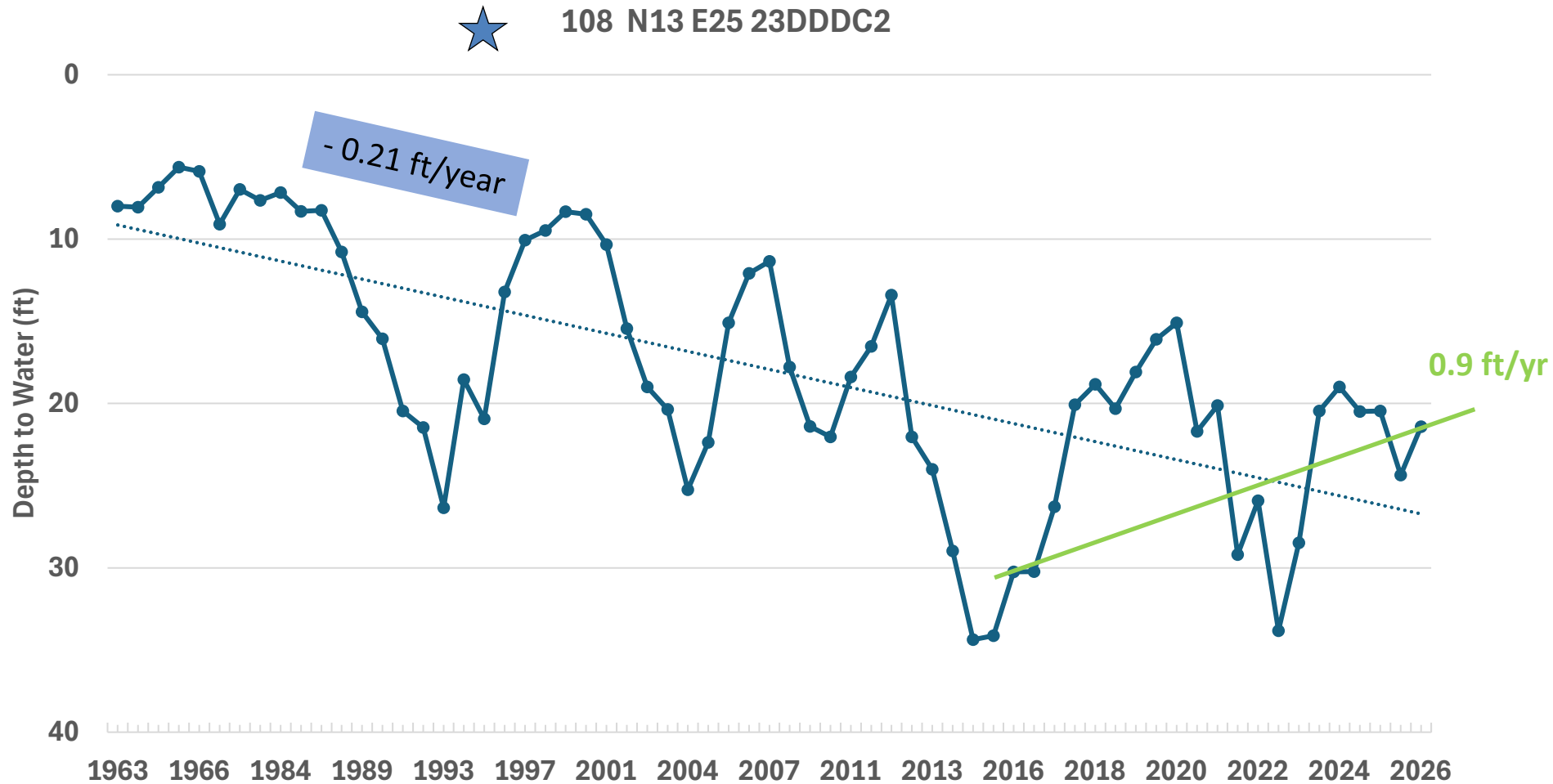
Southern Mason



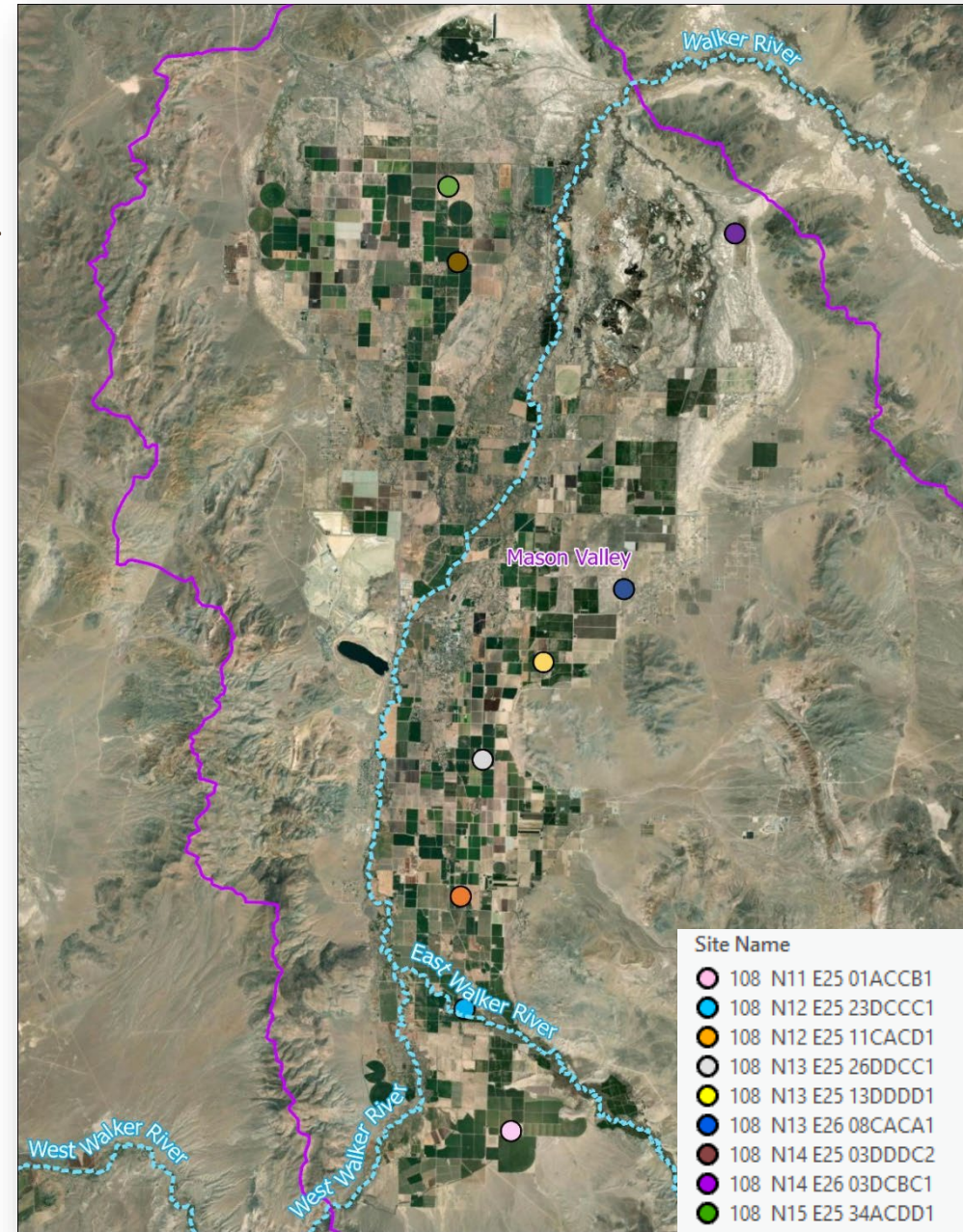
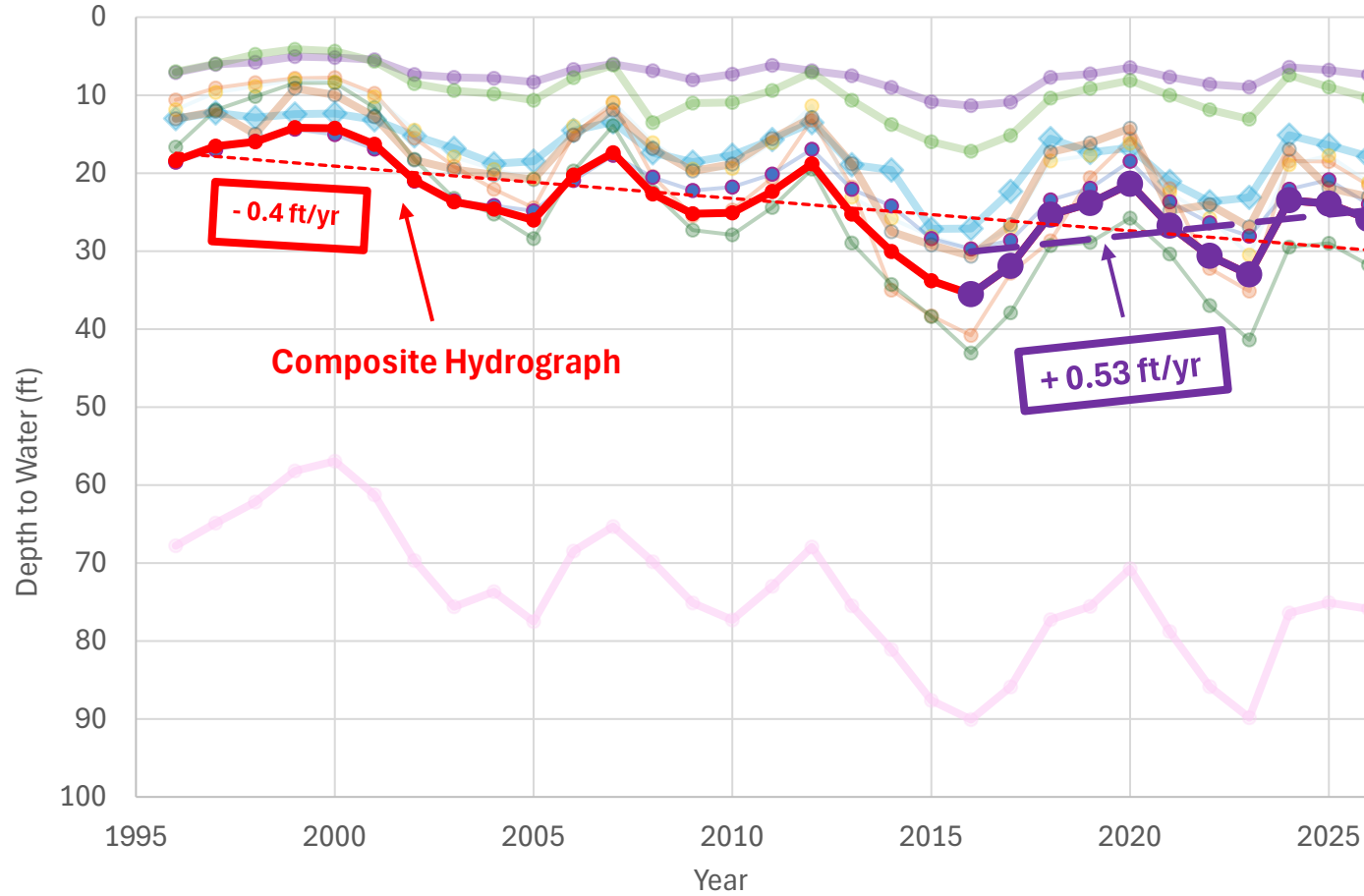
MASON VALLEY WATER LEVELS



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

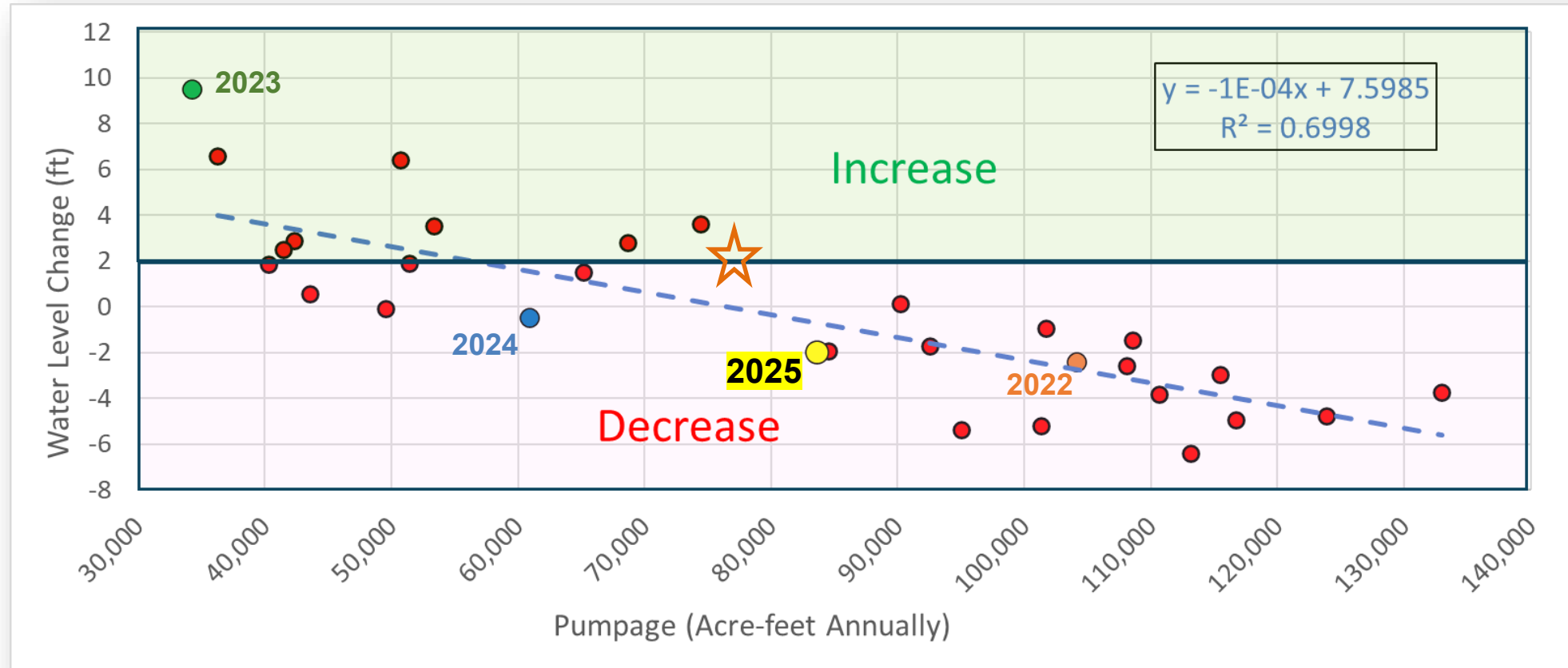


MASON VALLEY PUMPING VS. WATER LEVEL CHANGE

1996-2021 Average
Pumping: 81,256 AF

Estimated Average
Goal: <76,000 AF

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

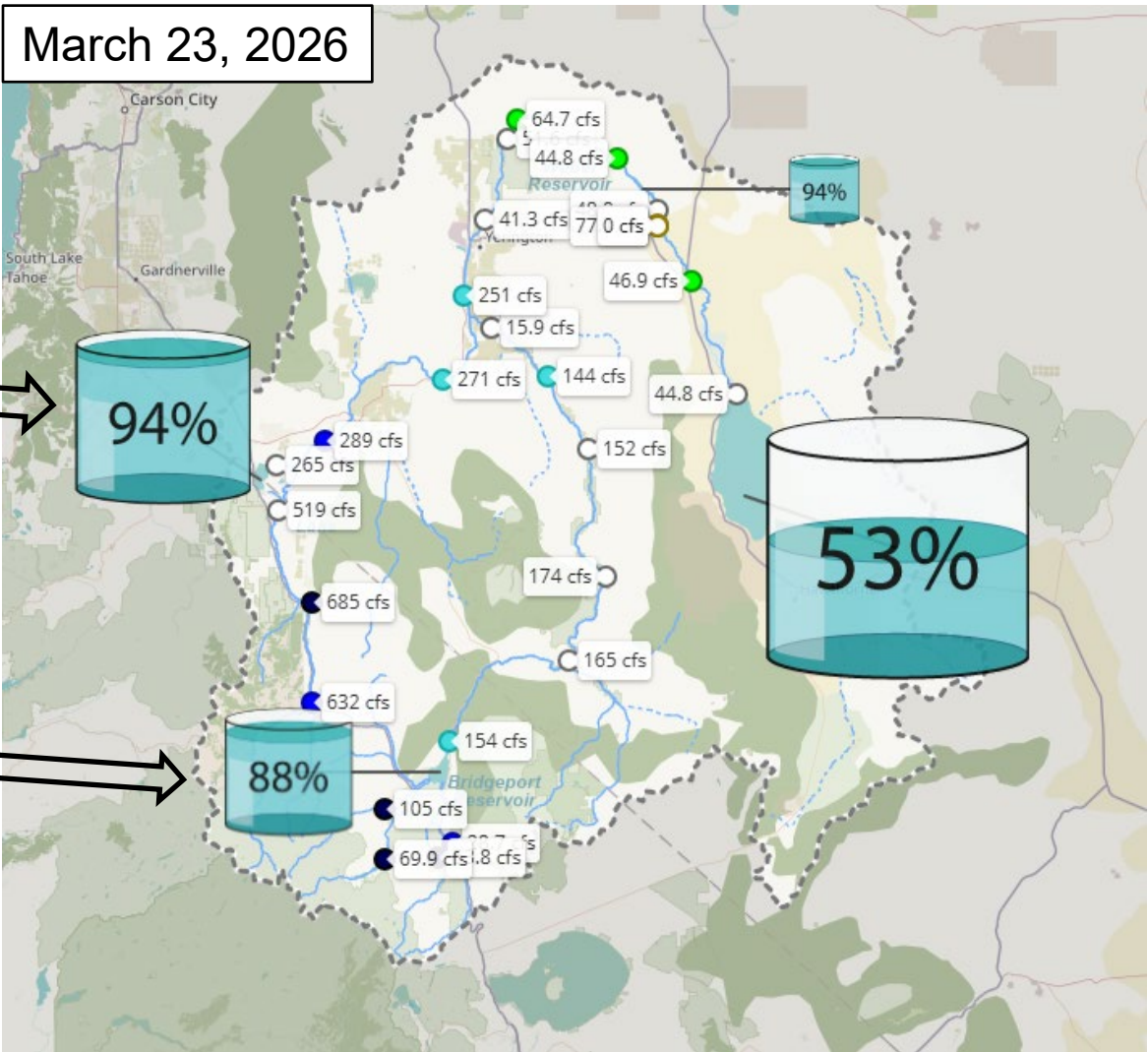


No water level change @ streamflow of ~ 242,000 AF (96-22 median = 155,400 AF)

WATER SUPPLY OUTLOOK



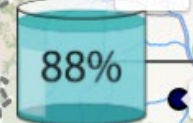
RESERVOIR STORAGE



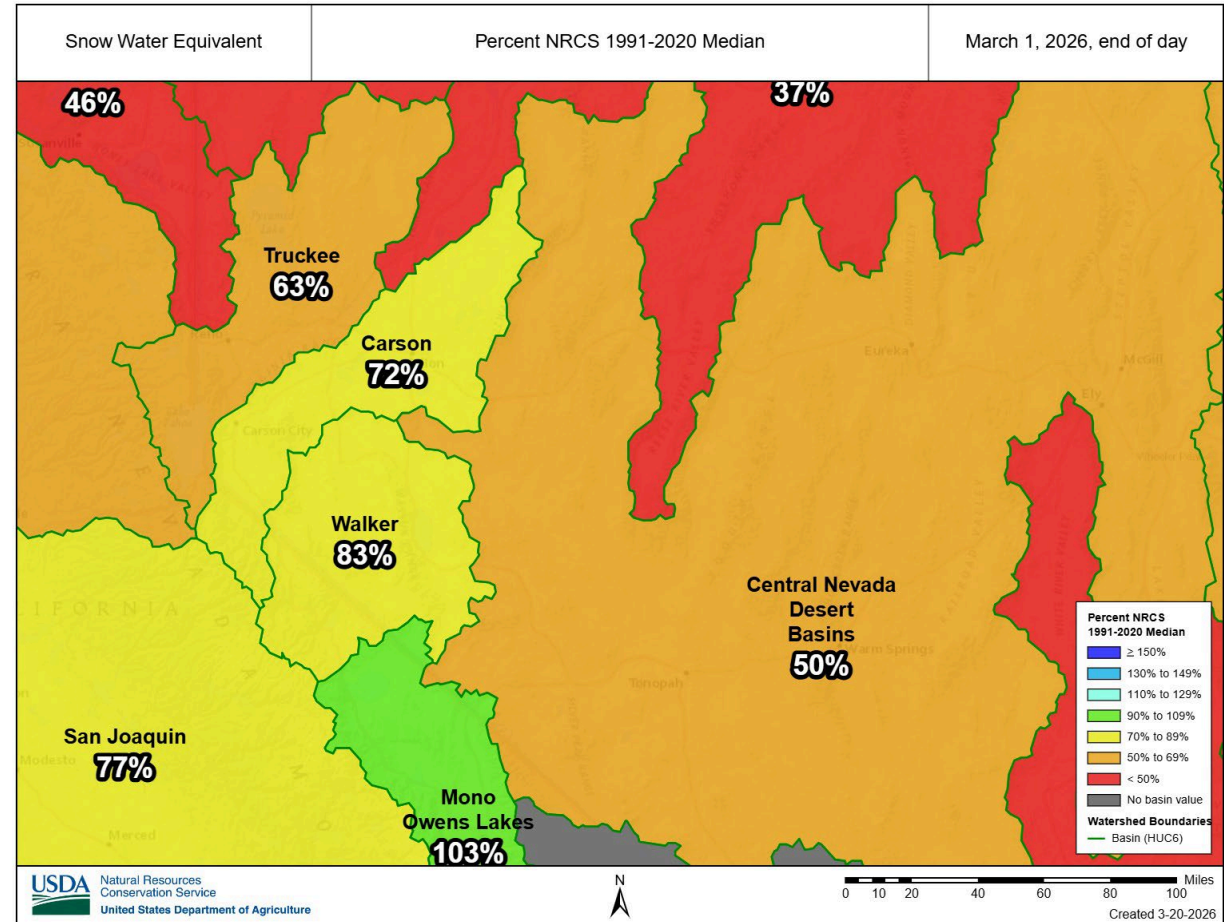
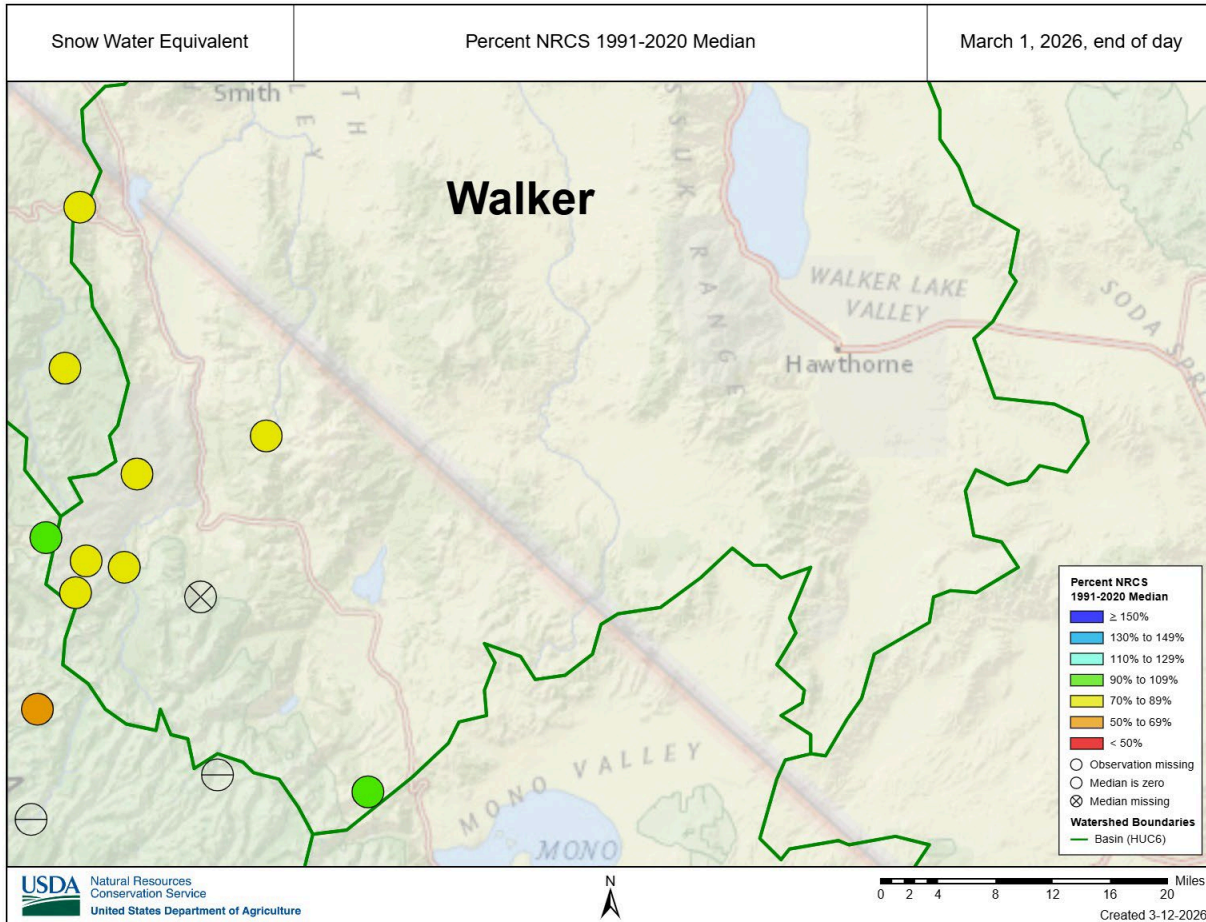
Up 39%



Up 25%



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

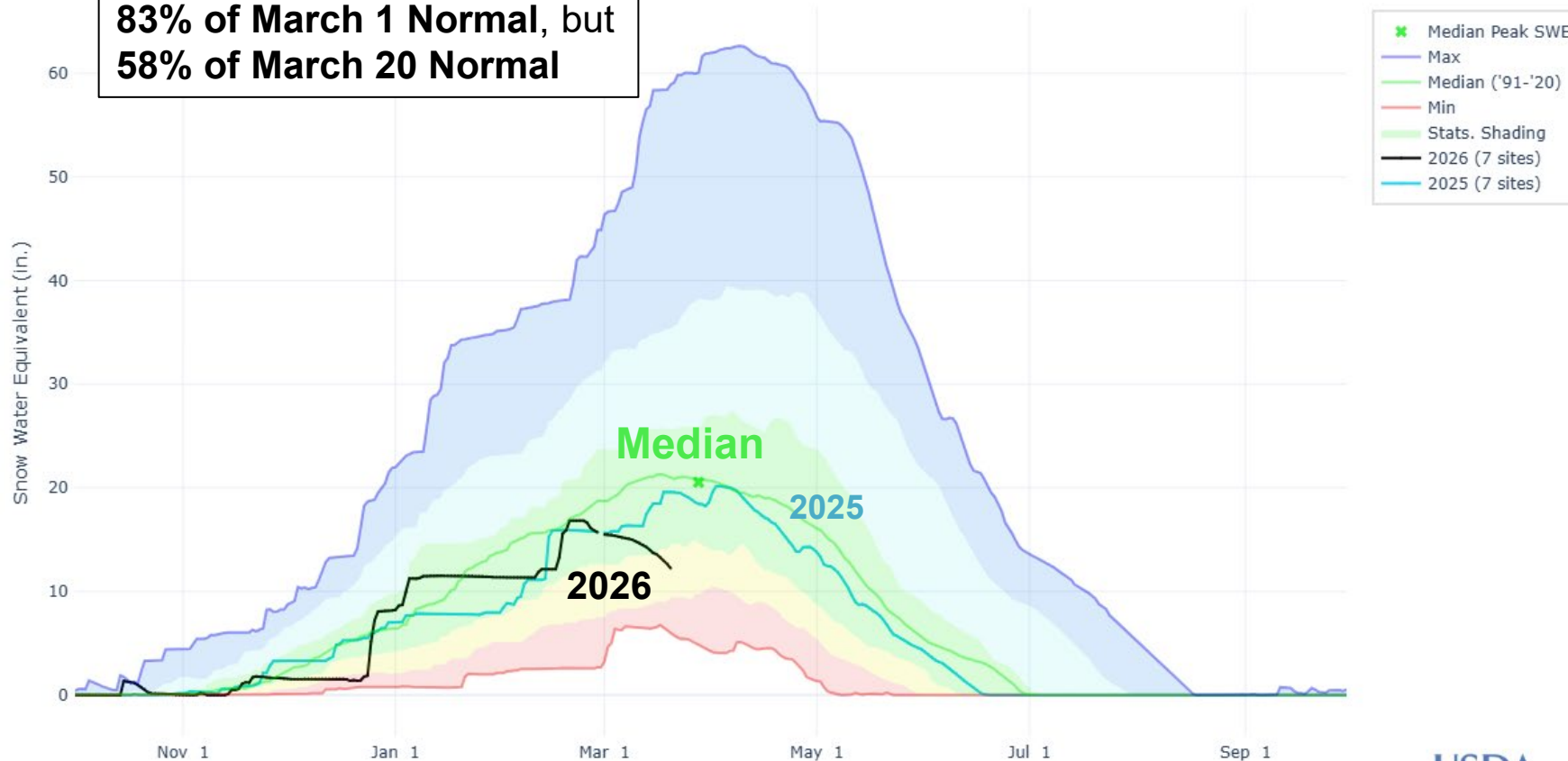


2026 WALKER SNOWPACK (SWE)

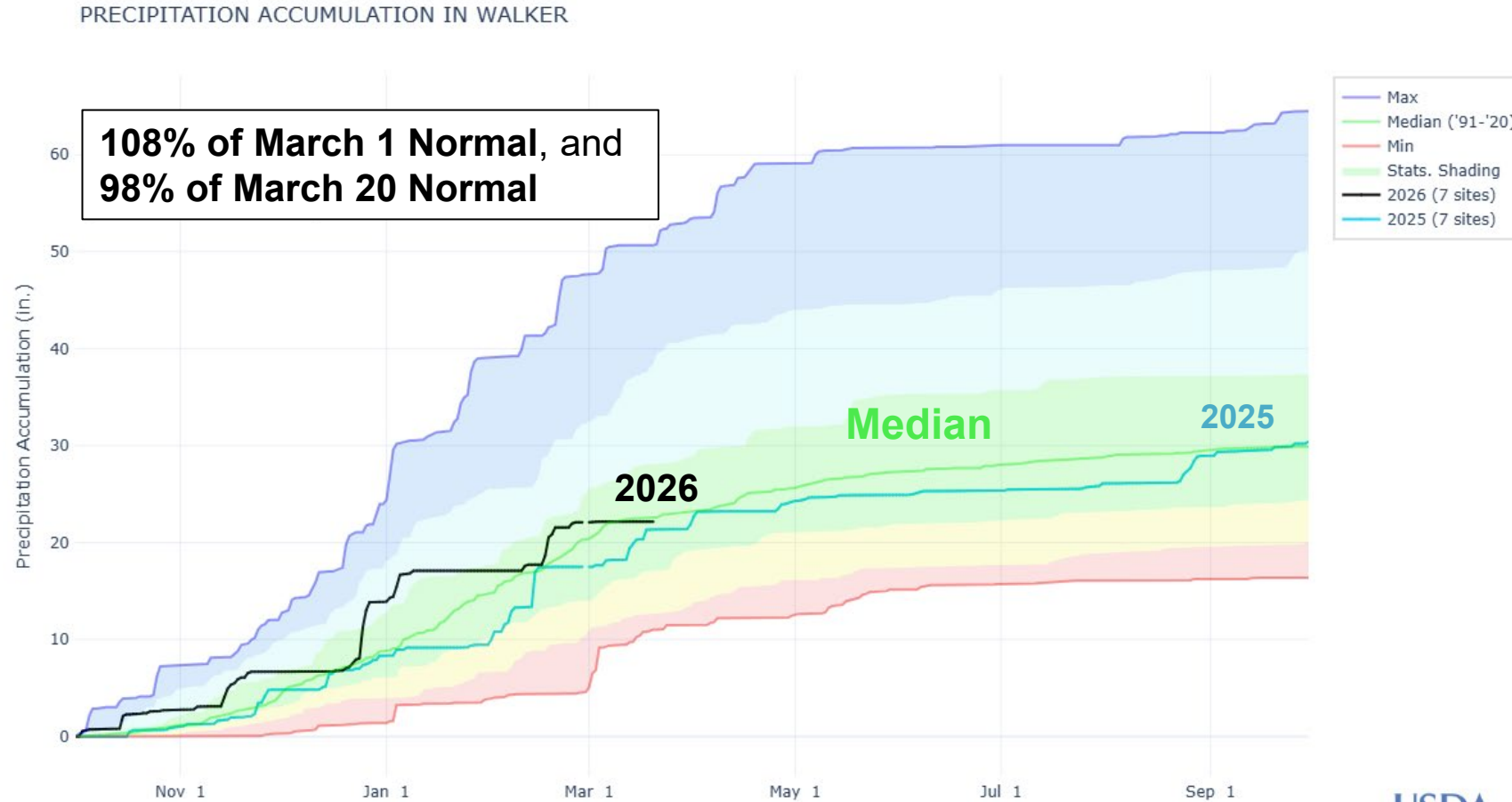


SNOW WATER EQUIVALENT IN WALKER

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

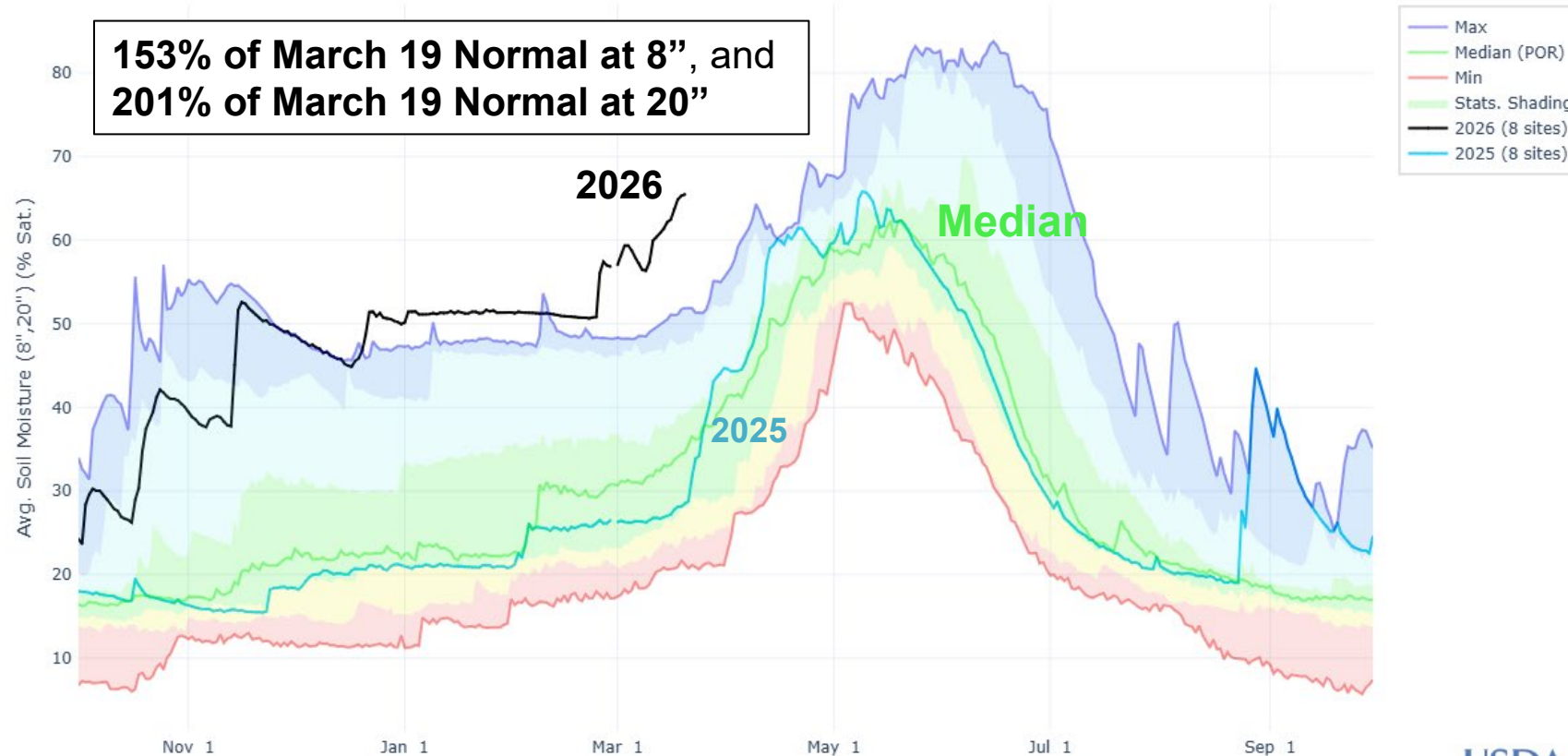


2026 WALKER PRECIPITATION



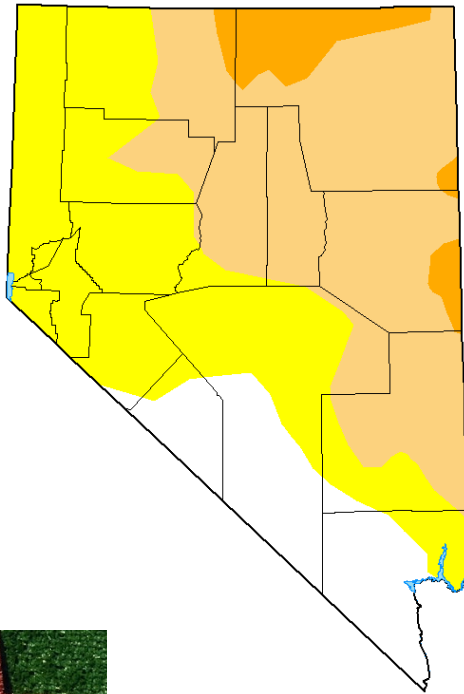
2026 WALKER SOIL MOISTURE

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

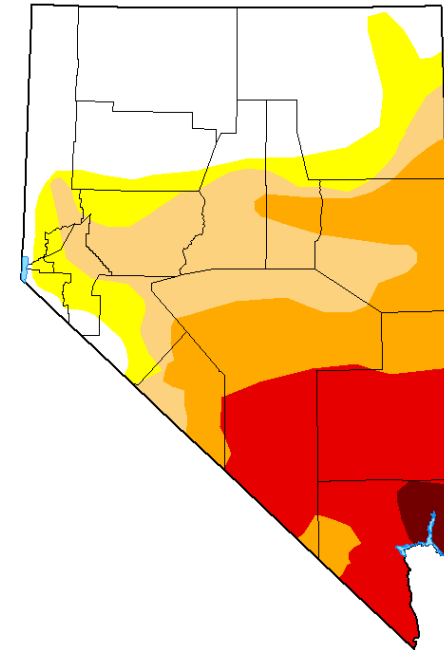


U.S. DROUGHT MONITOR







March 17, 2026



March 18, 2025



Intensity:

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

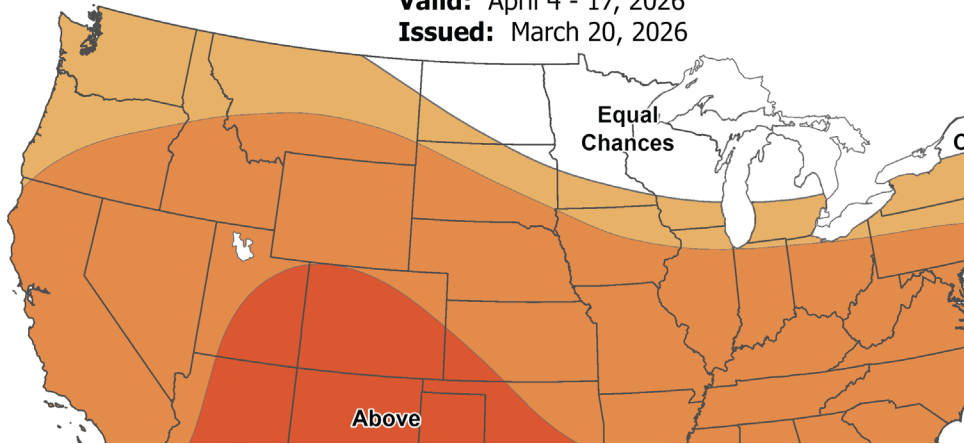


EARLY SEASON 2026 OUTLOOKS



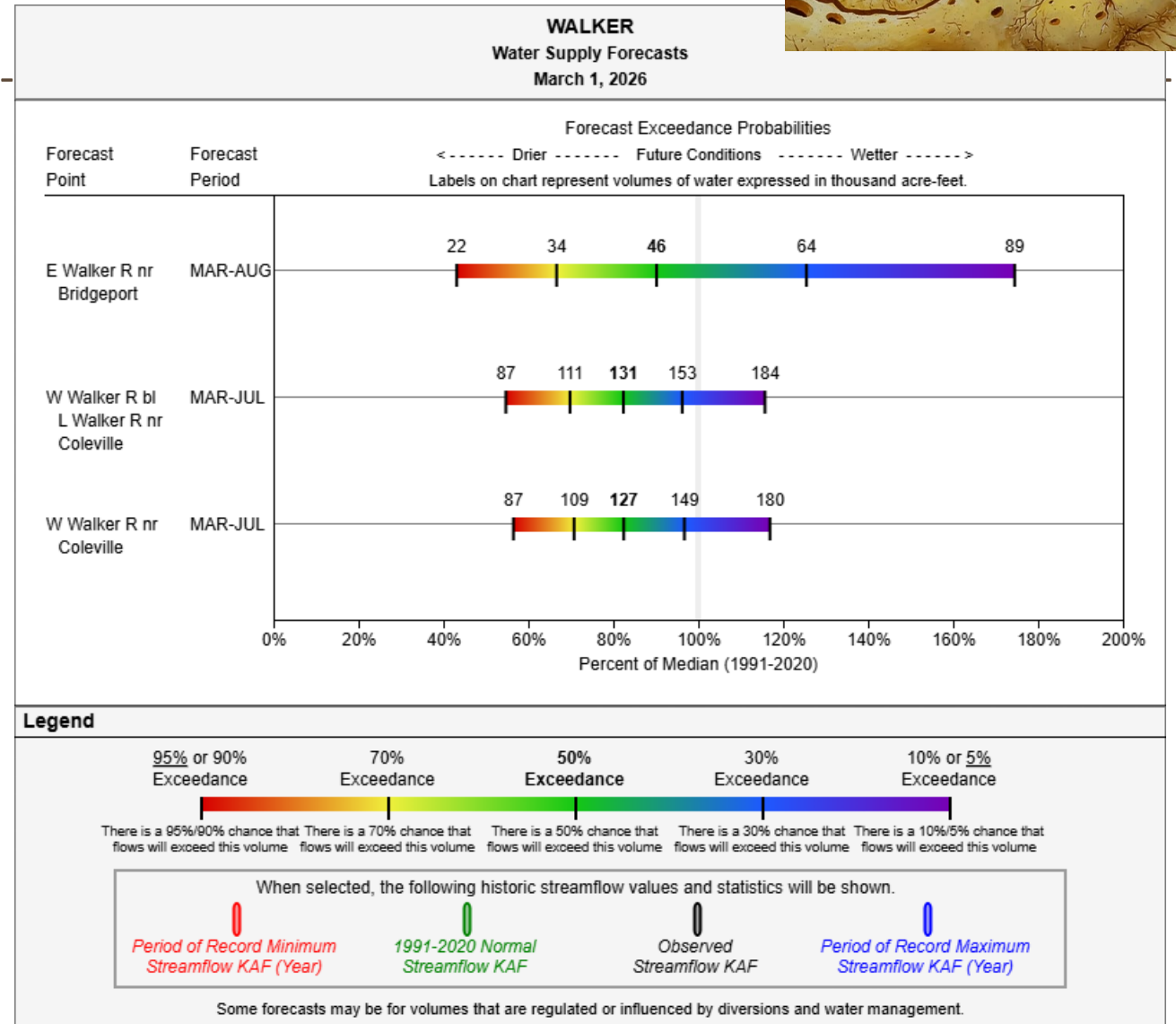
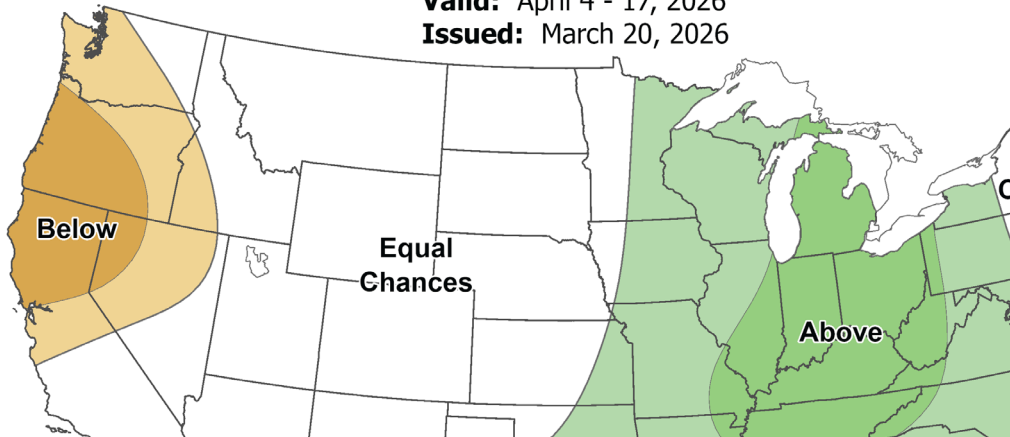
Week 3-4 Temperature Outlook

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

REVISED PUMPAGE GOAL

Due to the snowpack peaking in late February and an unseasonably dry March, the pumpage goals for Smith and Mason Valleys have been revised based on April 1 (rather than March 1) snowpack and reservoir storage data.

The new 2026 pumpage goal for Mason Valley is < 91,400 AF.

PUMPING PREDICTION FOR 2026 (APRIL 1) – MASON VALLEY

$$\text{April Pre-Season Pumping Forecast} = -0.814 \cdot (0.55\text{BP} + 0.45\text{TP}) - 38,496 \cdot \text{SWE} + 149,895 - 5,250$$

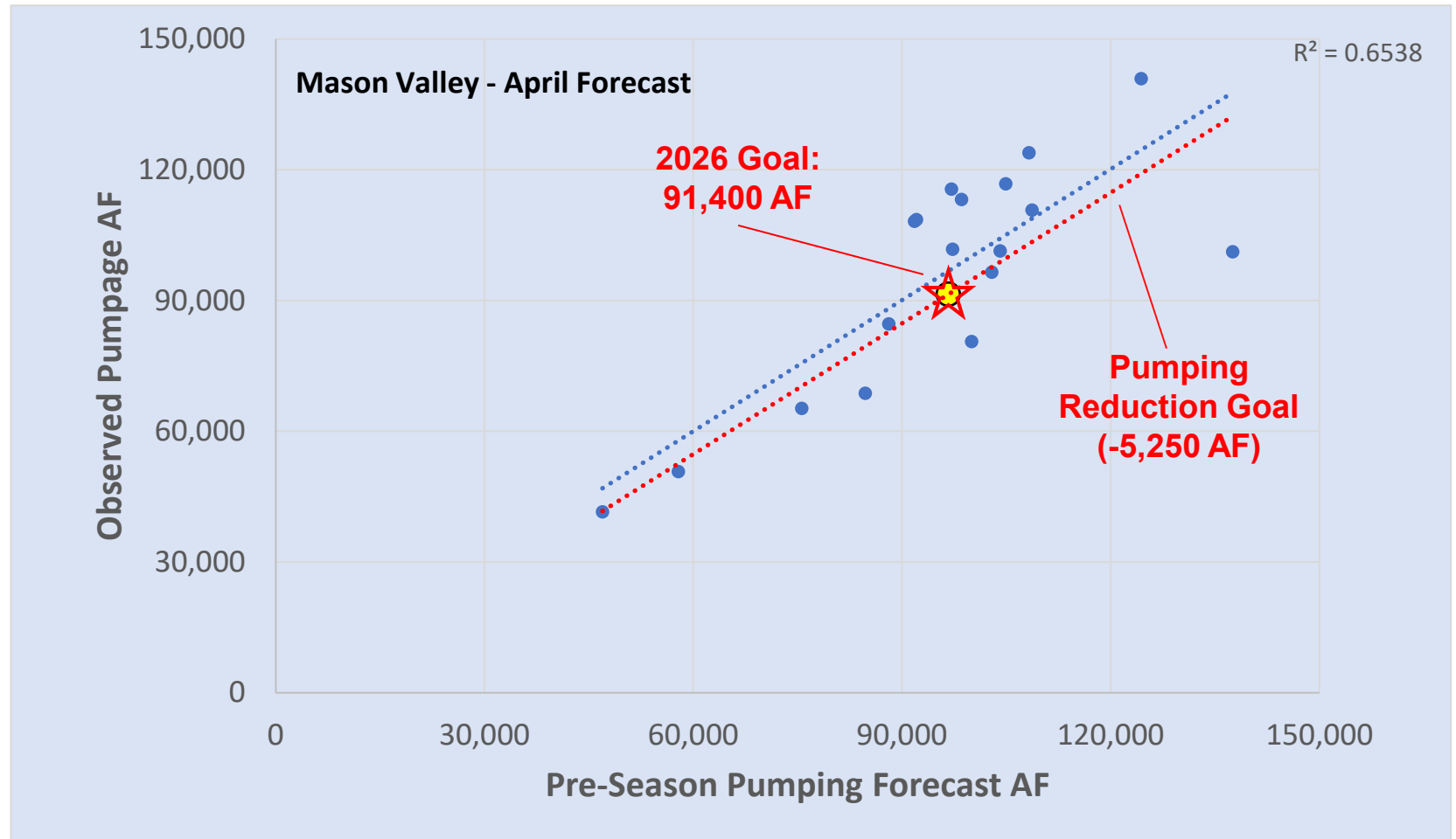
April 1 Observations of:

BP = Bridgeport Storage (37,260 AF)

TP = Topaz Storage (57,770 AF)

SWE = Walker Basin
Snow Water Equivalent (40%)

**2026 pumpage goal
for Mason Valley is
< 91,400 AF.**



PUMPING PREDICTION FOR 2026 (MARCH 1) – MASON VALLEY

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

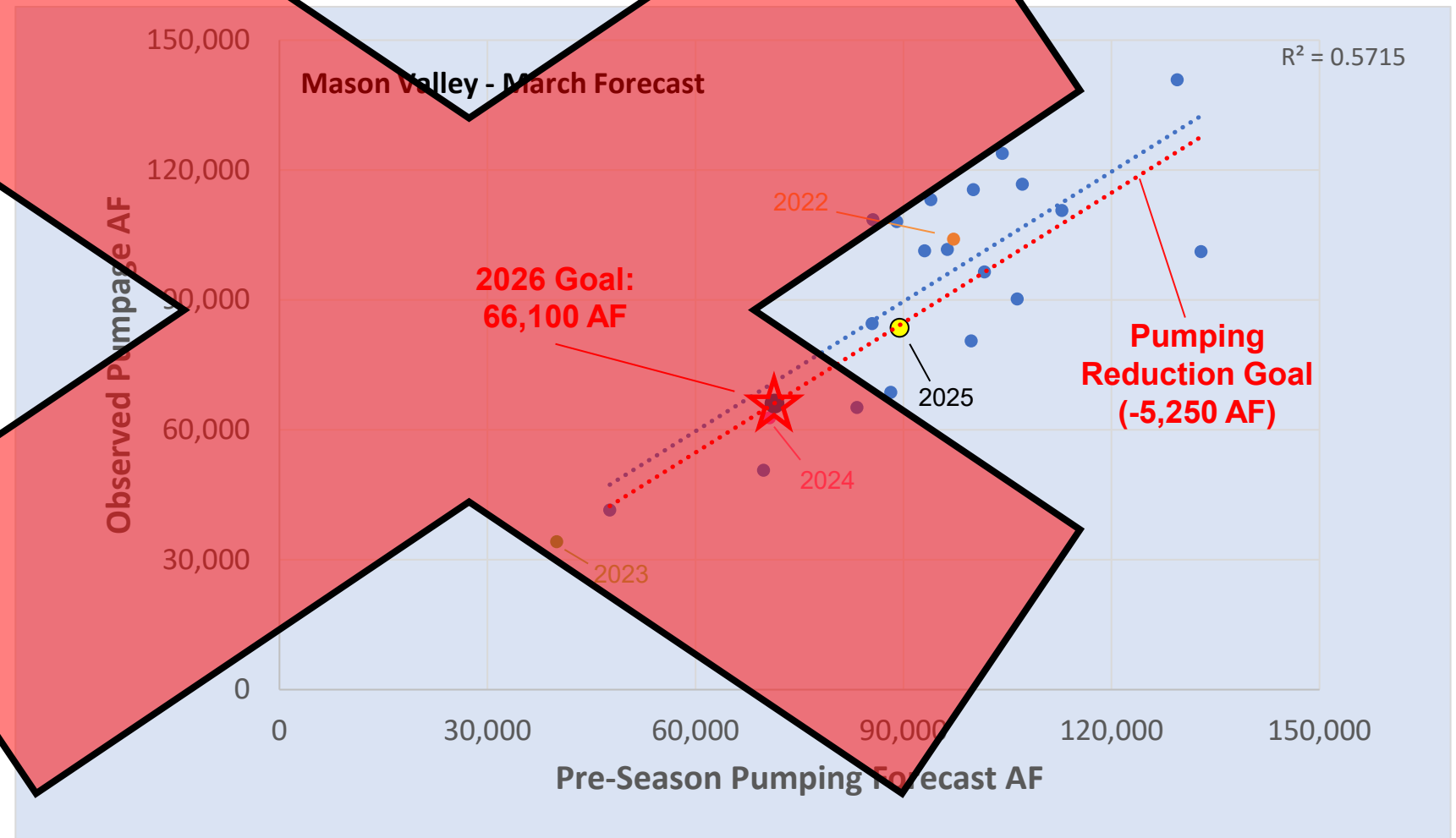
March 1 Observations of:

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: 91,400 AF

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

2026 pumpage goal is about 57% of the total groundwater commitments in the basin

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)

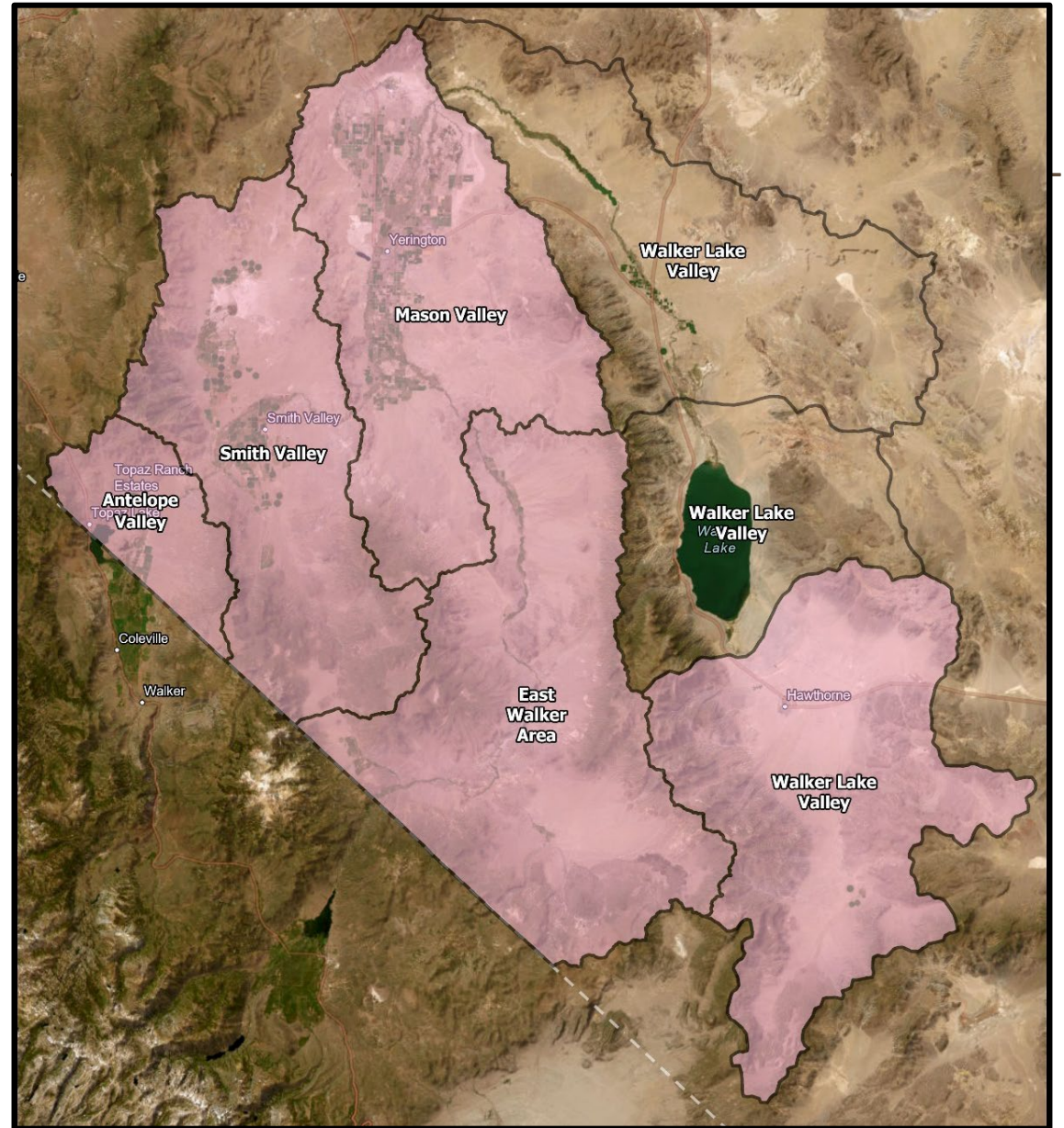
- WY26 has tracked similarly to WY25 through February, but the unseasonably warm and dry March is leading to early and rapid snowmelt.
- Aiming for less supplemental pumping this year due to higher reservoir levels, but this also depends on runoff patterns and valley soil moisture.
- Peak discharge likely 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 < 91,400 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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