



# NWS Seasonal Outlook 2024

Weather Forecast Office  
Reno, NV  
Tuesday, April 2



## Winter in Recap



## Season Outlook



## Fire Outlook



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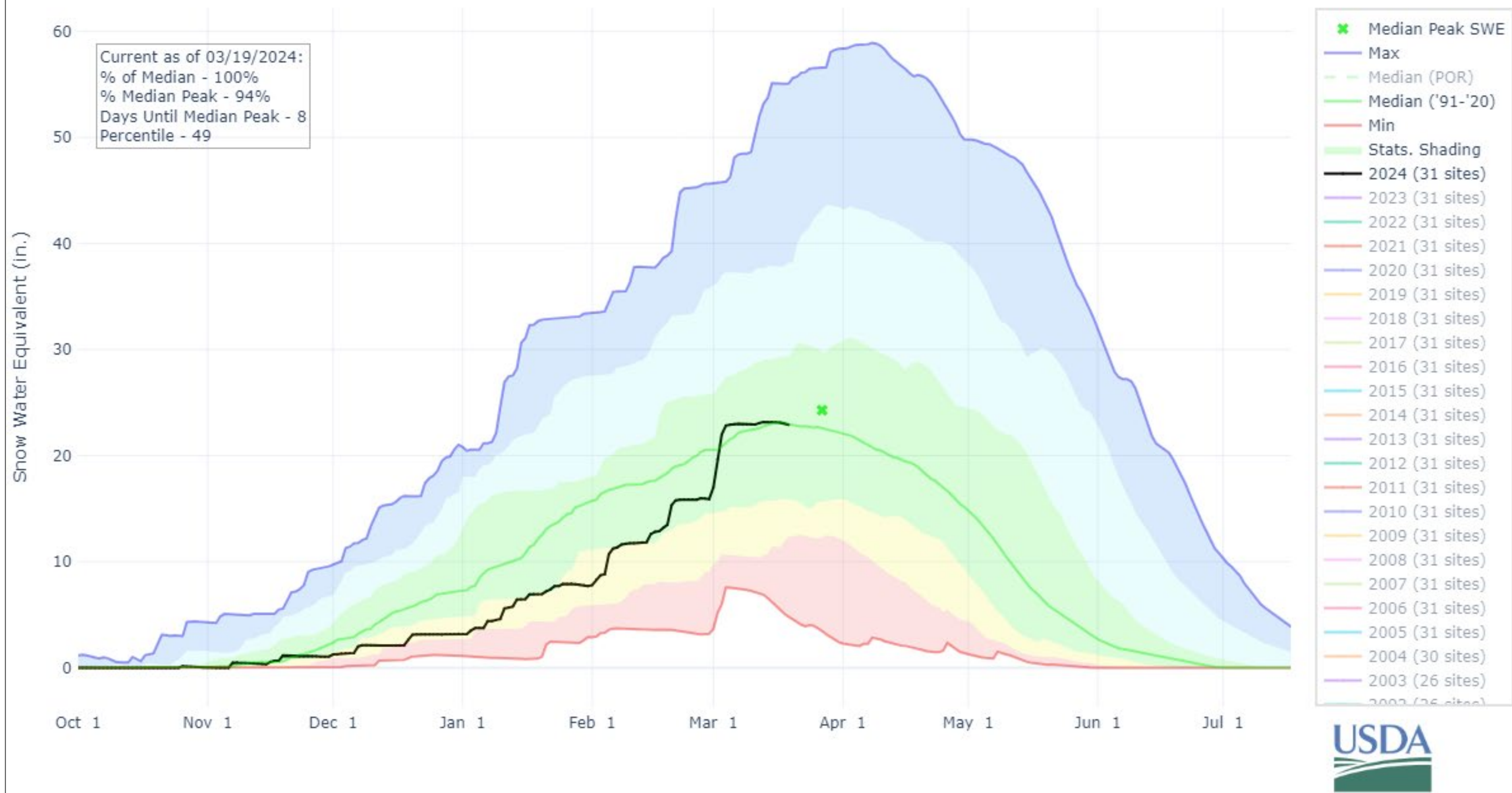






# The March Blizzard In Context

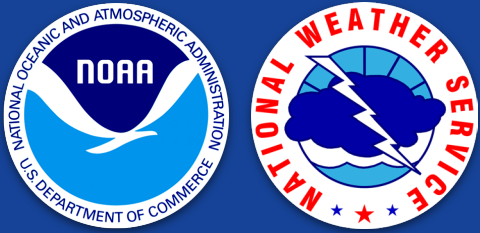
### SNOW WATER EQUIVALENT IN EASTERN SIERRA



## From NRCS March Snowpack Report

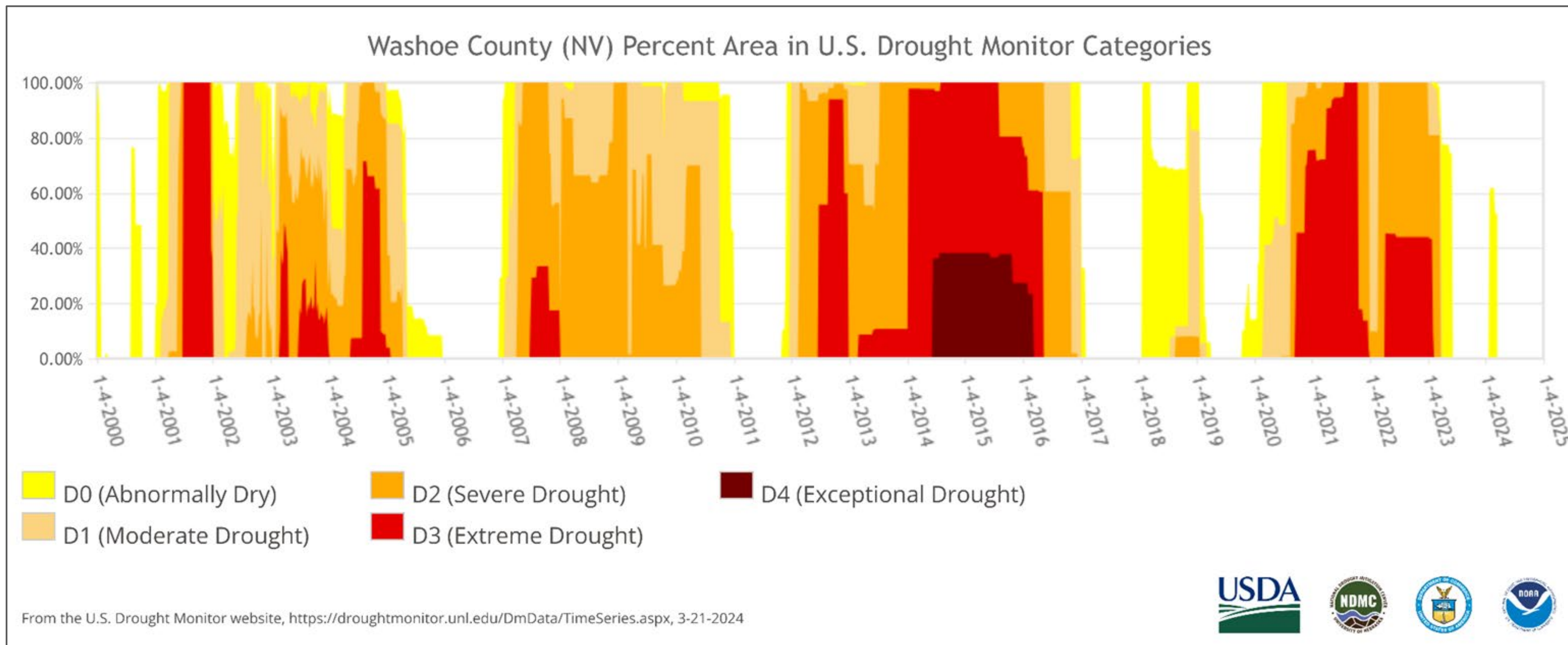
- In the eastern Sierra snow water content increased on average **6.9 inches** across the 31 long-term SNOTEL sites between February 29 and March 4.
- Based on historic SNOTEL data back to 1981 there have only been **16 other storms** that have added more than 6 inches of water content to the region's snowpack over a four-day stretch.
- Of those **only three storms** recorded a higher four-day gain than this year's blizzard.



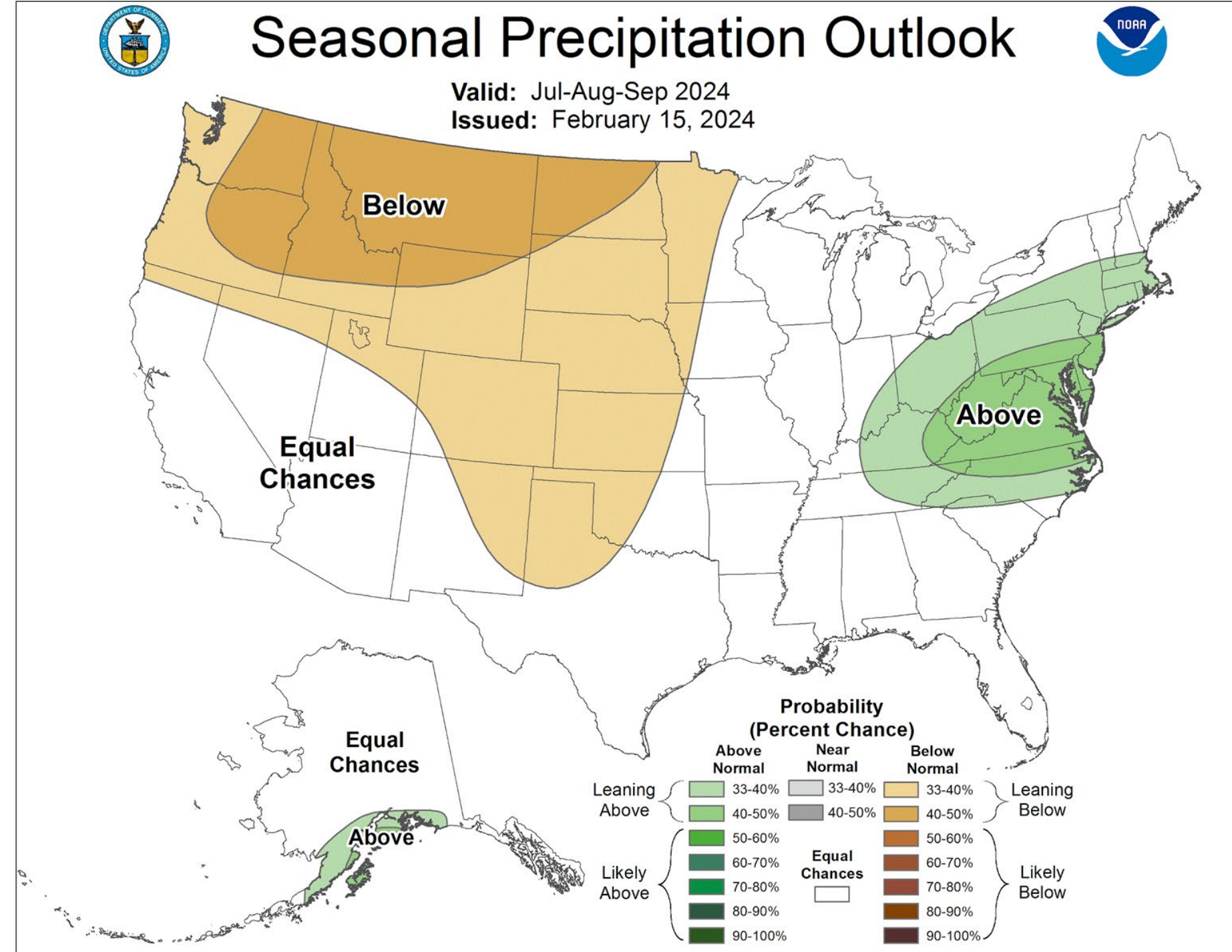
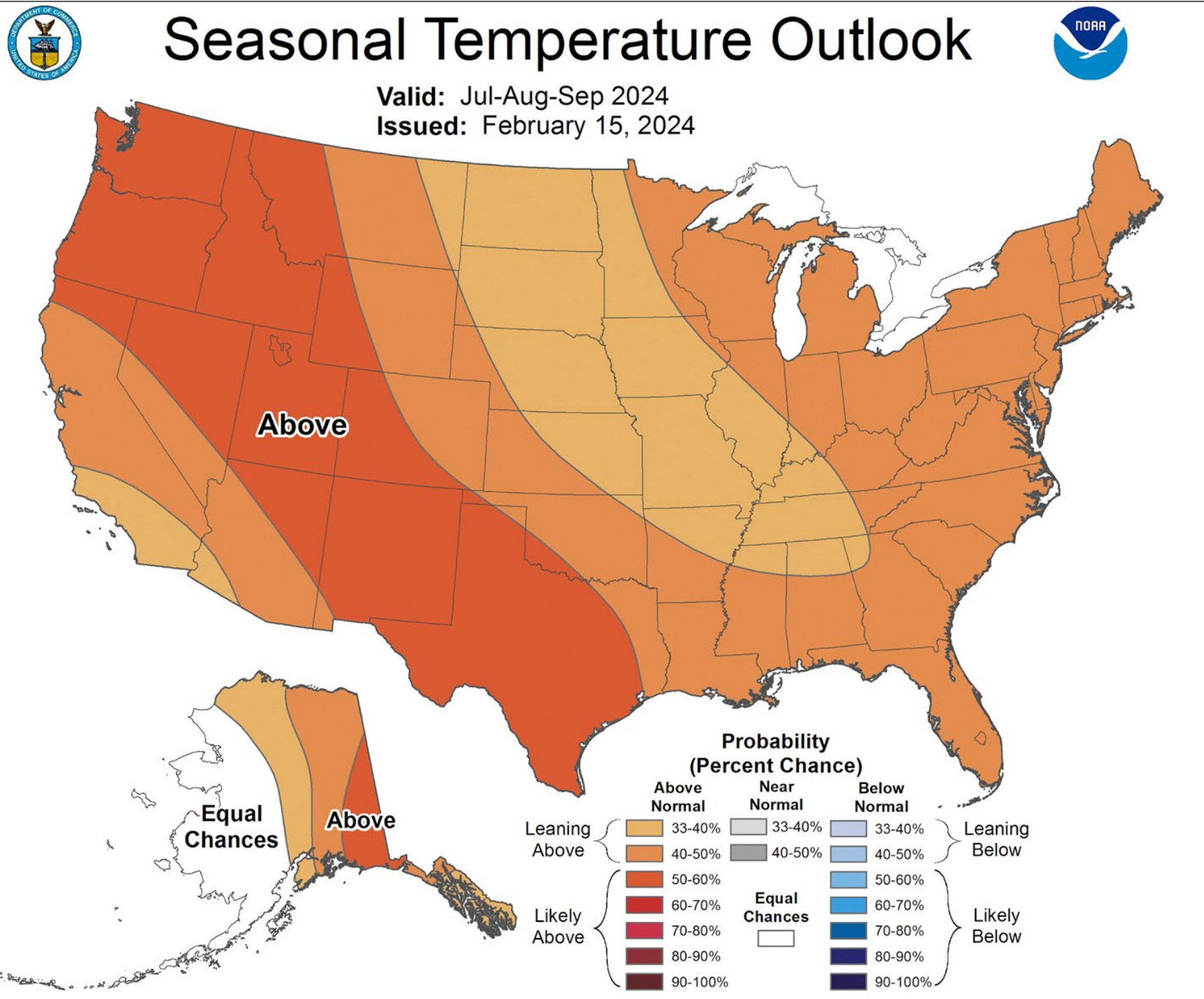


# How's the Drought Status?

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**Drought is very cyclical in CA & NV. Often larger summer Great Basin fire seasons follow wet periods.**

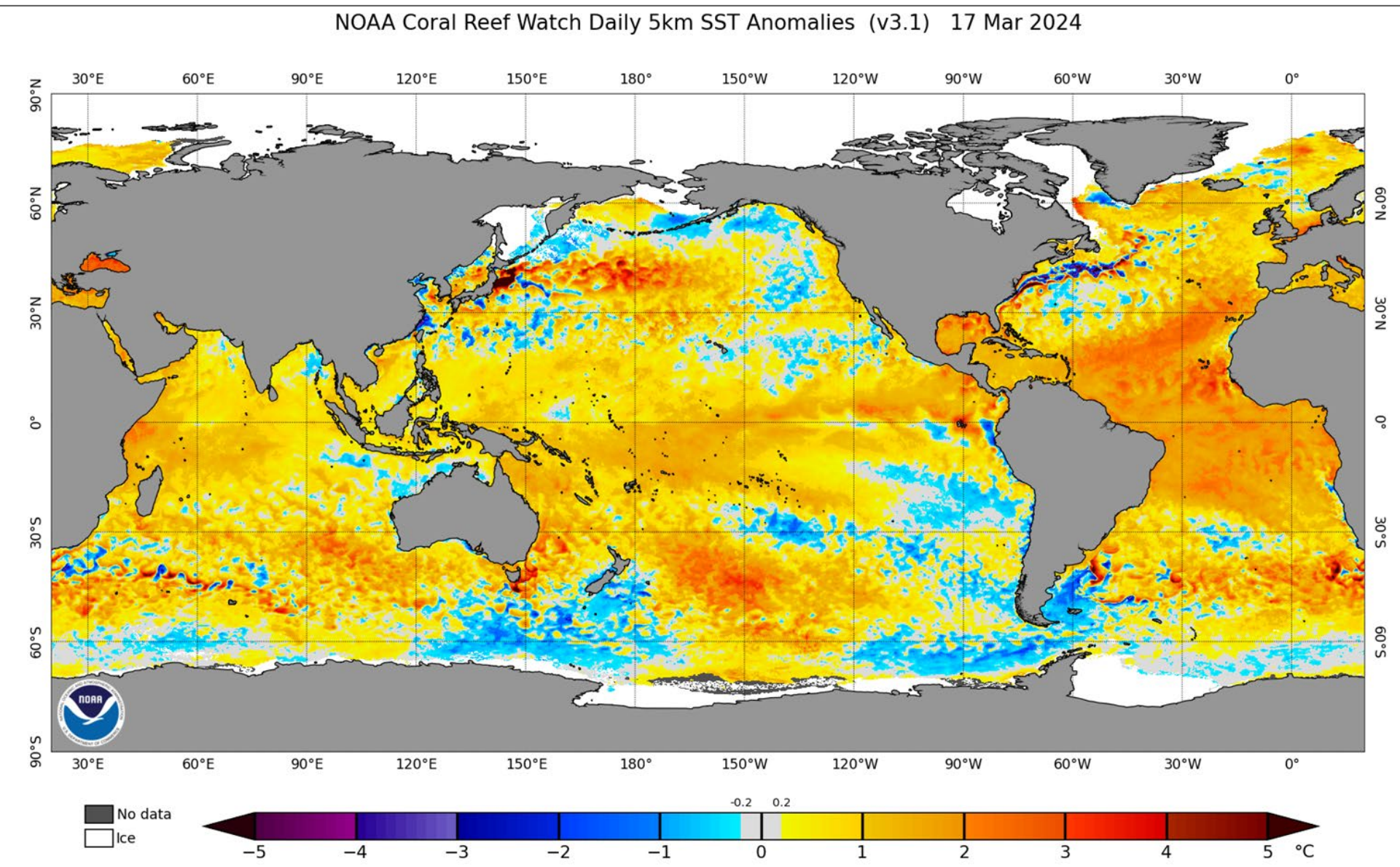


Favoring above normal on temperatures, but no clear signal on precipitation. Monsoon moisture is uncertain due to El Niño to La Niña transition - but odds favor less active than 2023.



# El Niño is Fading Quickly

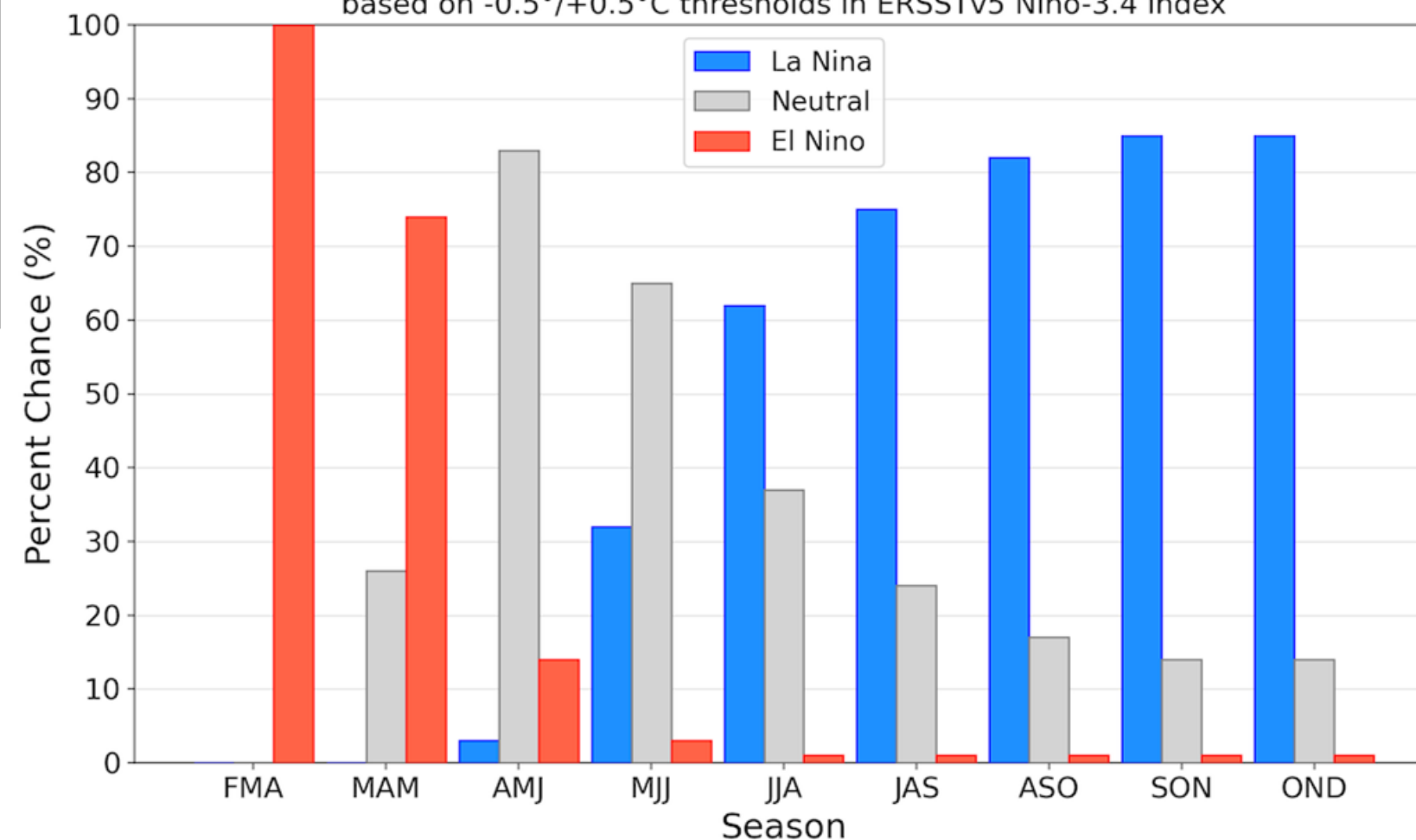
NOAA Coral Reef Watch Daily 5km SST Anomalies (v3.1) 17 Mar 2024



- These transitions can often lead to below normal predictability for spring-summer long range outlooks.
- Trending toward a La Niña for next winter, but TBD on how intense.

Official NOAA CPC ENSO Probabilities (issued Mar. 2024)

based on  $-0.5^{\circ}/+0.5^{\circ}\text{C}$  thresholds in ERSSTv5 Niño-3.4 index



- Most La Niña's have no clear relationship for winter precip in the Sierra & Nevada.
- However, weak La Niña's have correlated with many of our big winter flood events.



**Lots of carryover fine fuels from 2023 + a decent crop expected this year.**

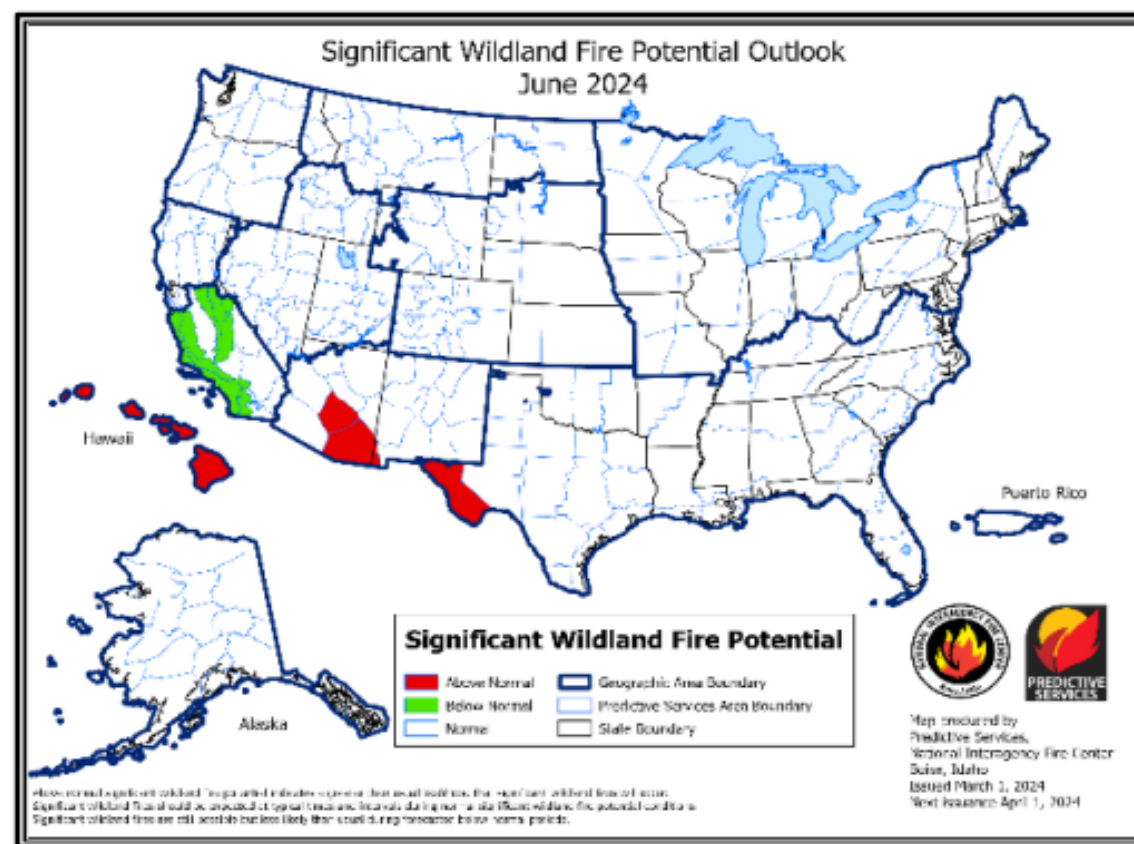
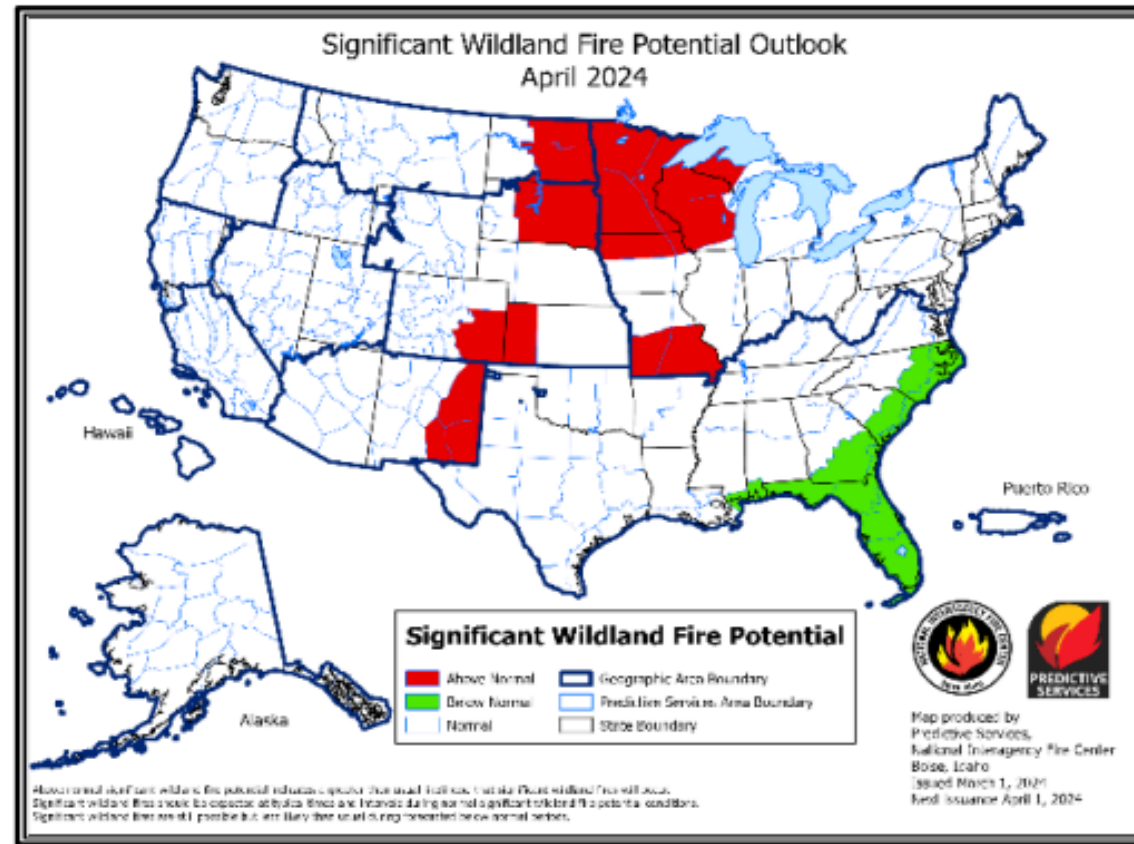
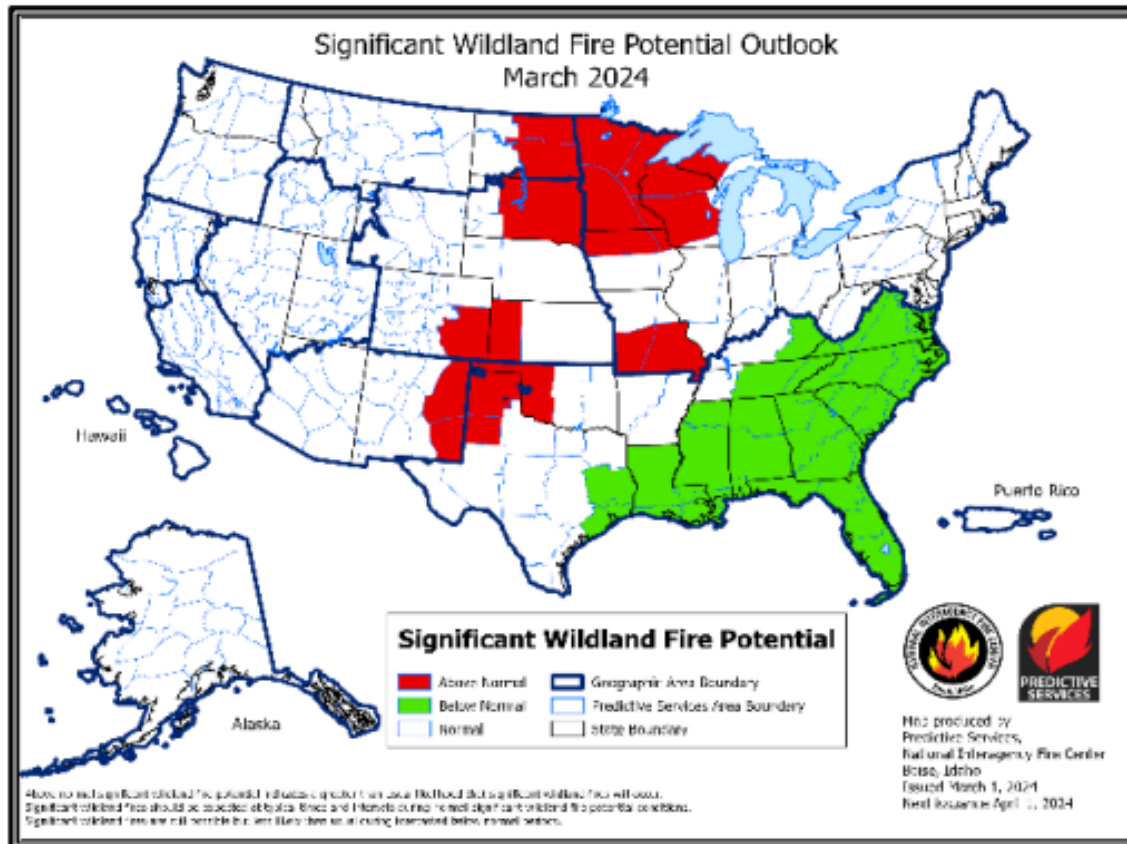


**But, heavy snows can compact them lessening the surface area to burn.**



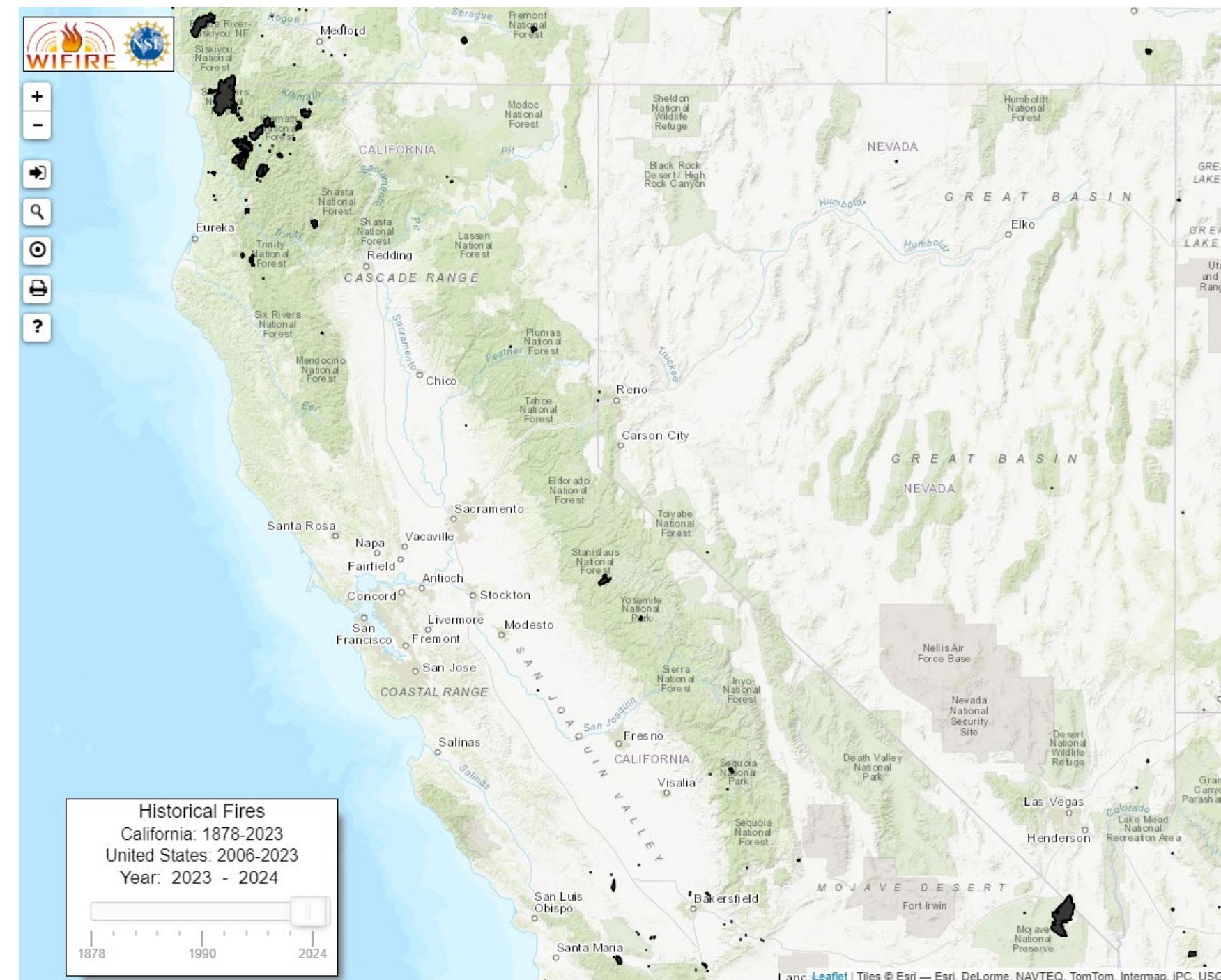


# Official Wildfire Seasonal Outlooks



- Near normal activity forecast at this time, but the remainder of winter and spring will play a big role.
- Typically, it's the second summer after a big winter that can be problematic in the mountains, but it all depends on the ongoing winter as well.
- Highest risk nationwide is Minnesota, Wisconsin, and northern Michigan.

Mosquito Fire "Smoke Tsunami" Sept 2022



- **Almost certain to have more fire activity compared to 2023!**
- Great Basin: back to back wet years favor plentiful fuel growth, so leaning near to above normal on fire activity esp lower elevations.
- Sierra: average snowpack + carryover moisture from 2023 - leaning near to below normal. Unusually hot summer could change that.
- Delayed start to fire season in areas with above normal snowpack.

**2023: a historically quiet fire season for CA & NV**



- Email Briefings - the Freakout Chart
- NWS Reno - edan.lindaman@noaa.gov
- NWS Las Vegas -  
daniel.berc@noaa.gov
- Fire Weather Planning Forecast [ [link](#) ]
- Area Forecast Discussion [ [link](#) ]
- ECCDA Dispatch Area Forecasts [ [link](#) ]
- Decision Support Table [ [link](#) ]

- Spot Weather for Rx burns, wildfires, hazmat, SAR, and other incidents (tell us your critical thresholds or prescription!) [ [link](#) ]
- IMETs for Type 1 or 2 wildfires - deployed via normal dispatches & NIFC [ [more info](#) ]
- Smoke forecasts via HRRR Smoke model [ [link](#) ]
- Just call us 24/7 for a quick brief!  
775-673-8105 for NWS Reno  
(non-public fire weather number)



Lassen Volcanic  
National Park Pile Burn



## Fire Weather Watch

- ✓ 2-5 days in advance
- ✓ Medium confidence (~40-60% probability)
- ✓ Critical fire weather: 30+ MPH wind gusts and 15% humidity for 3+ hours -or- numerous dry t-storms

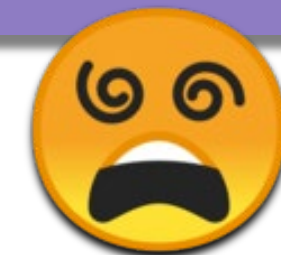


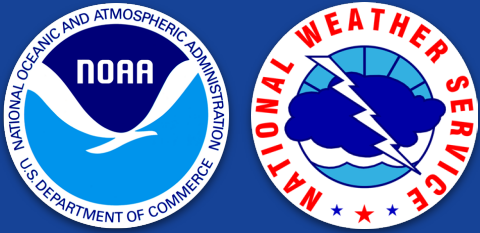
## Red Flag Warning

- ✓ 1-3 days in advance
- ✓ High confidence (80%+ probability)
- ✓ Critical fire weather conditions.
- ✓ Roughly 10-20 Red Flag days each year, but varies!

## Particularly Dangerous Situation (PDS) Red Flag Warning

- ✓ 1-2 days in advance
- ✓ Extremely high confidence (95%+ probability)
- ✓ Rare events of extreme wind, low humidity, and dry fuels. 50+ MPH wind gusts but can vary. Evacuation readiness vital!
- ✓ 1 per year or every other year.





# Staying Weather Aware with iNWS

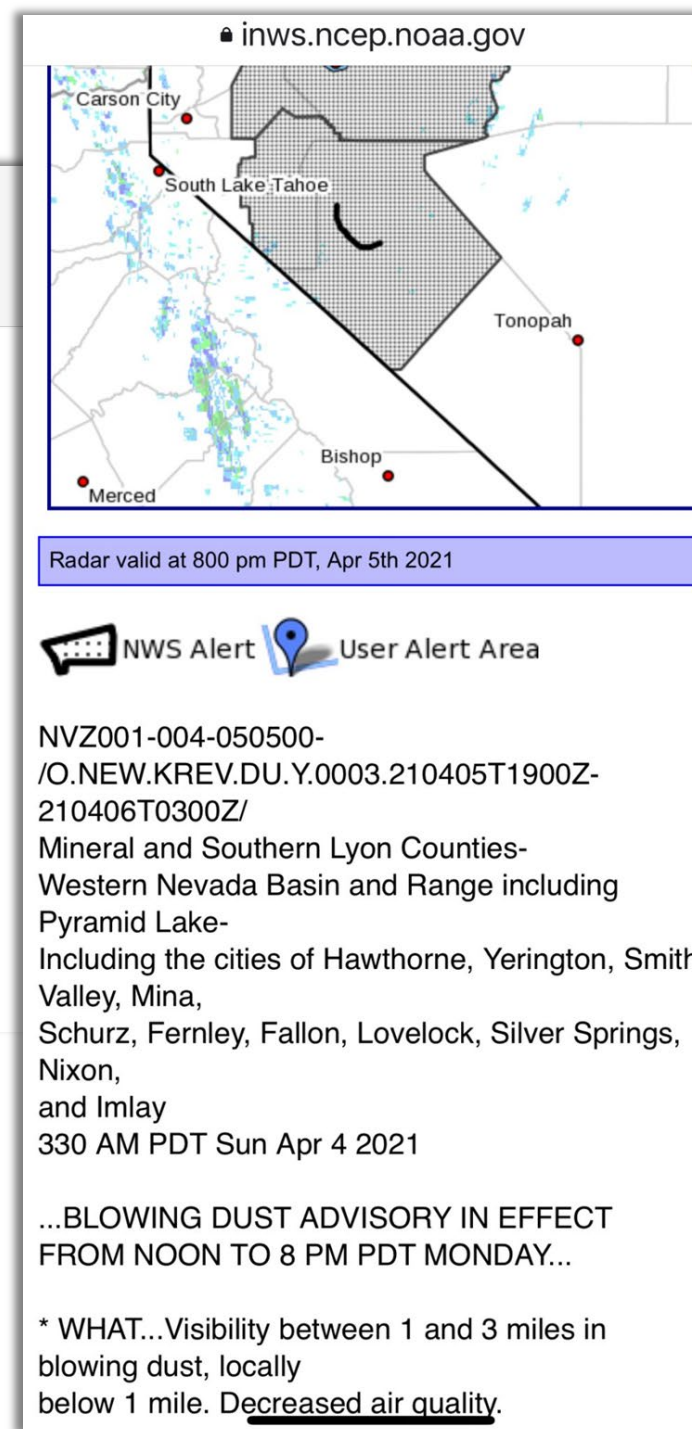
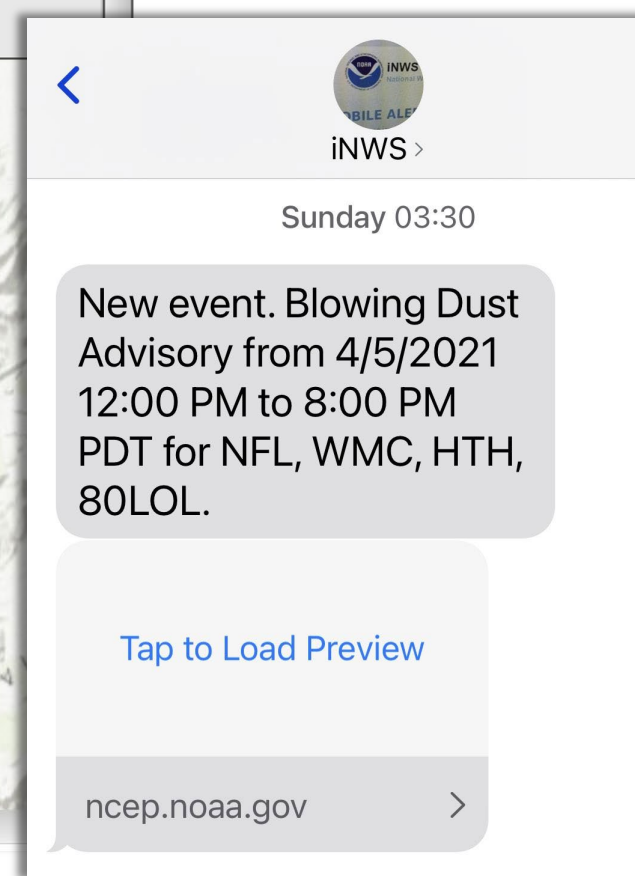
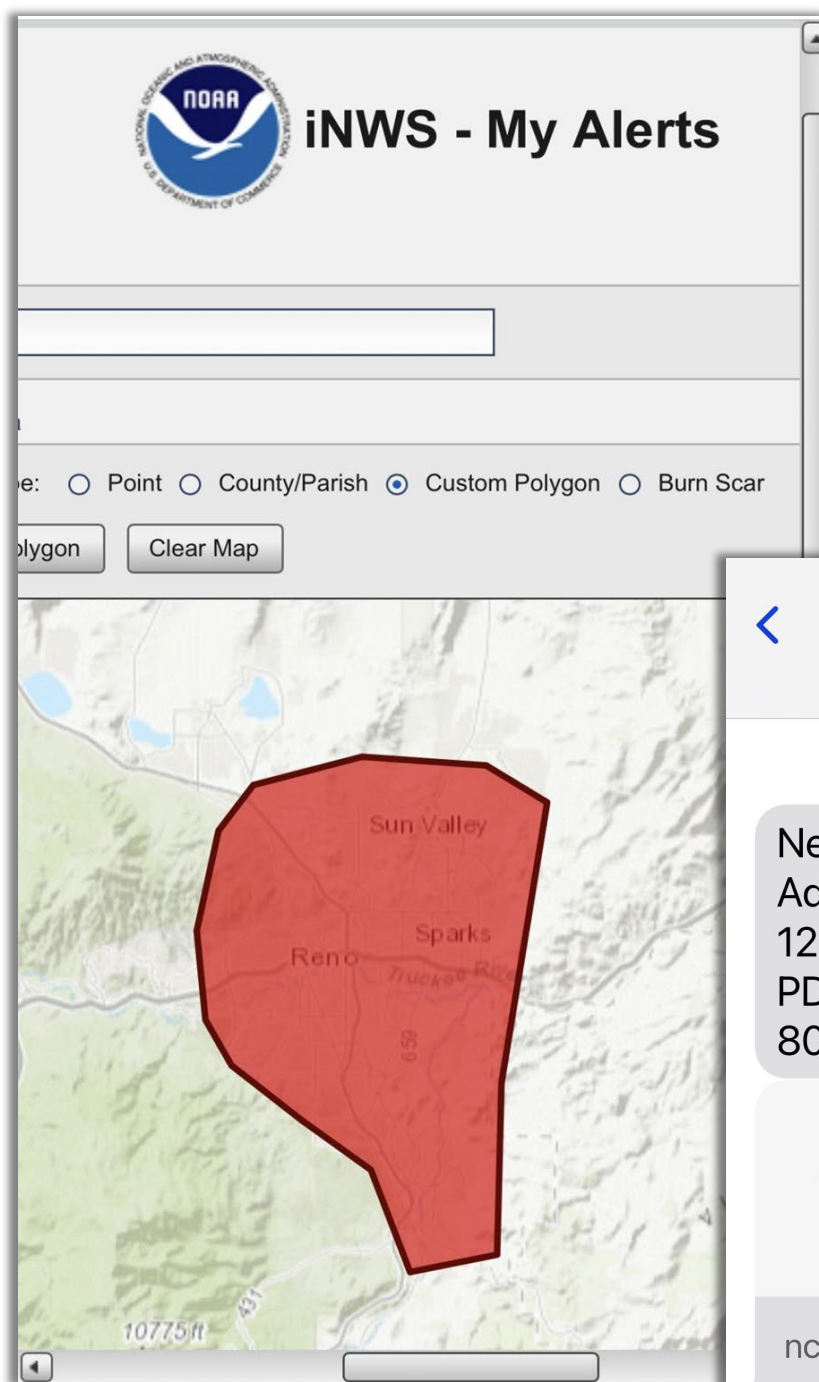
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## iNWS Alerts

Probably the best way to get notified of t-storm, fire weather, and flood alerts issued by NWS.

Text and/or email.

[inws.ncep.noaa.gov](http://inws.ncep.noaa.gov)





# Key Outlook Takeaways

- **Spring & summer weather TBD:** Odds favor less monsoon t-storm activity vs '23 but admittedly confidence is mixed.
- **Great Basin & E Sierra low elevations:** with hearty fine fuel crop + carryover from '23, almost certain to have a busier fire season compared to last year's historic lack of large fires. Potential for a big year is there.
- **Sierra fire season:** more uncertain - lots of residual moisture from '23 + this winter's snowpack argues below normal but potential for a hotter/drier summer could offset that. Delayed onset where snowpack is above normal



# That's All. Until Next Time...

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