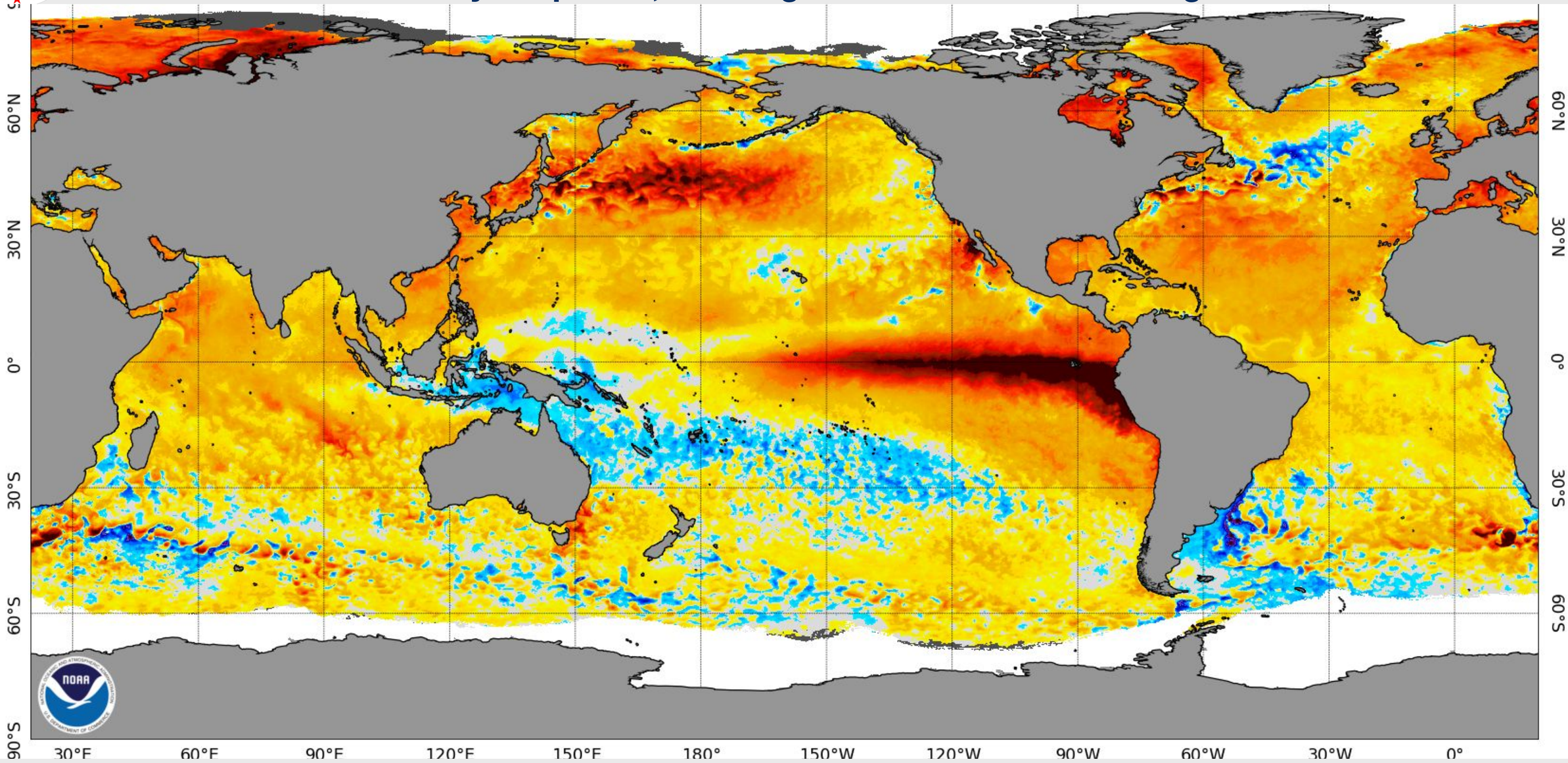
El Niño + Winter Pre-Season Briefing

October 5, 2026
3:00 PM PDT

Presenter: Courtney Carpenter, Warning Coordination Meteorologist



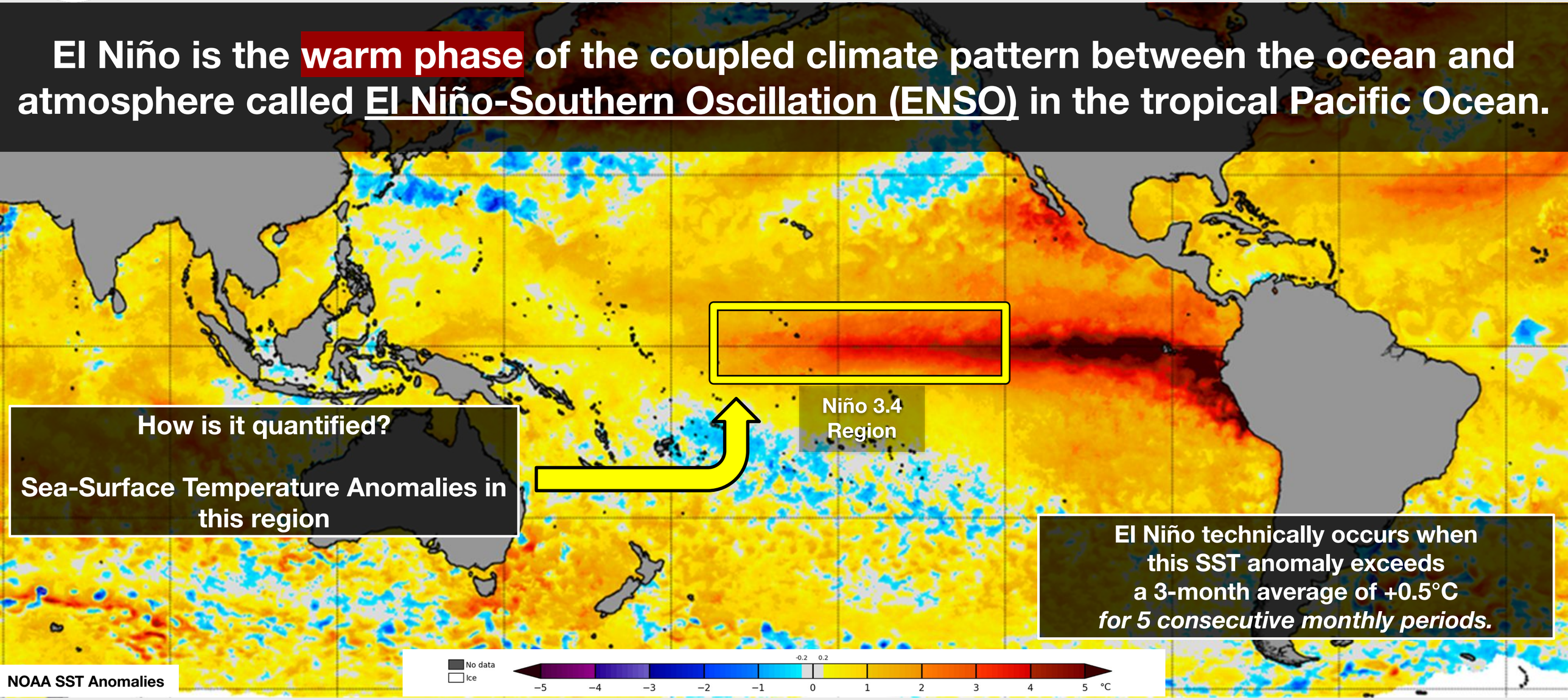
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

What is El Niño?

October 5, 2026
3:00 PM PDT

El Niño is the warm phase of the coupled climate pattern between the ocean and atmosphere called El Niño-Southern Oscillation (ENSO) in the tropical Pacific Ocean.



NOAA SST Anomalies

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

El Niño Status & Outlook

October 5, 2026
3:00 PM PDT

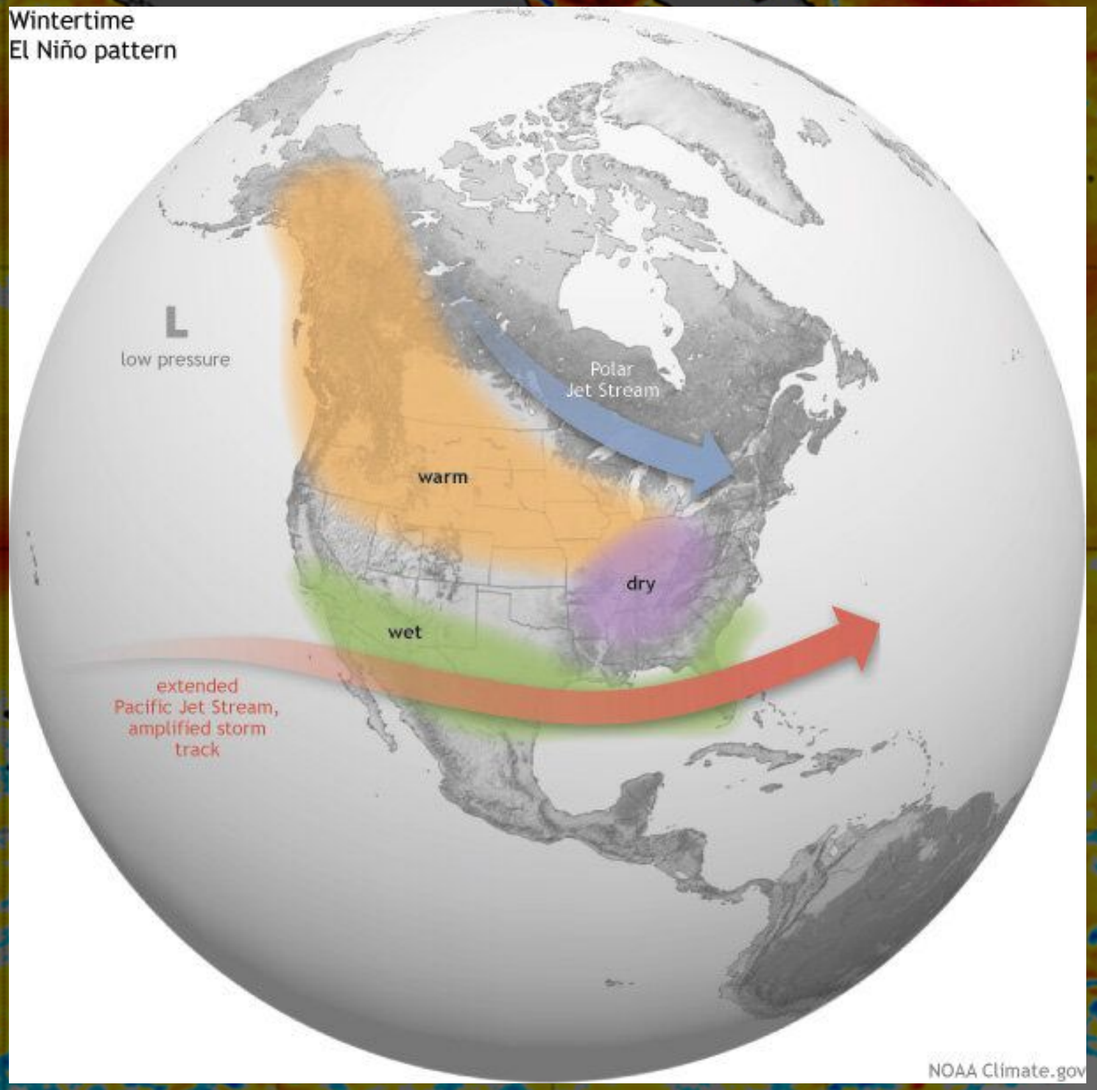
El Niño Status & Forecast

El Niño Advisory

Usual Favored Wintertime Effects in Northern CA

⚠️No two years are alike

Precip: No Clear Indicator	Temps: Warmer than Normal



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

How Strong Will It Be?

October 5, 2026
3:00 PM PDT

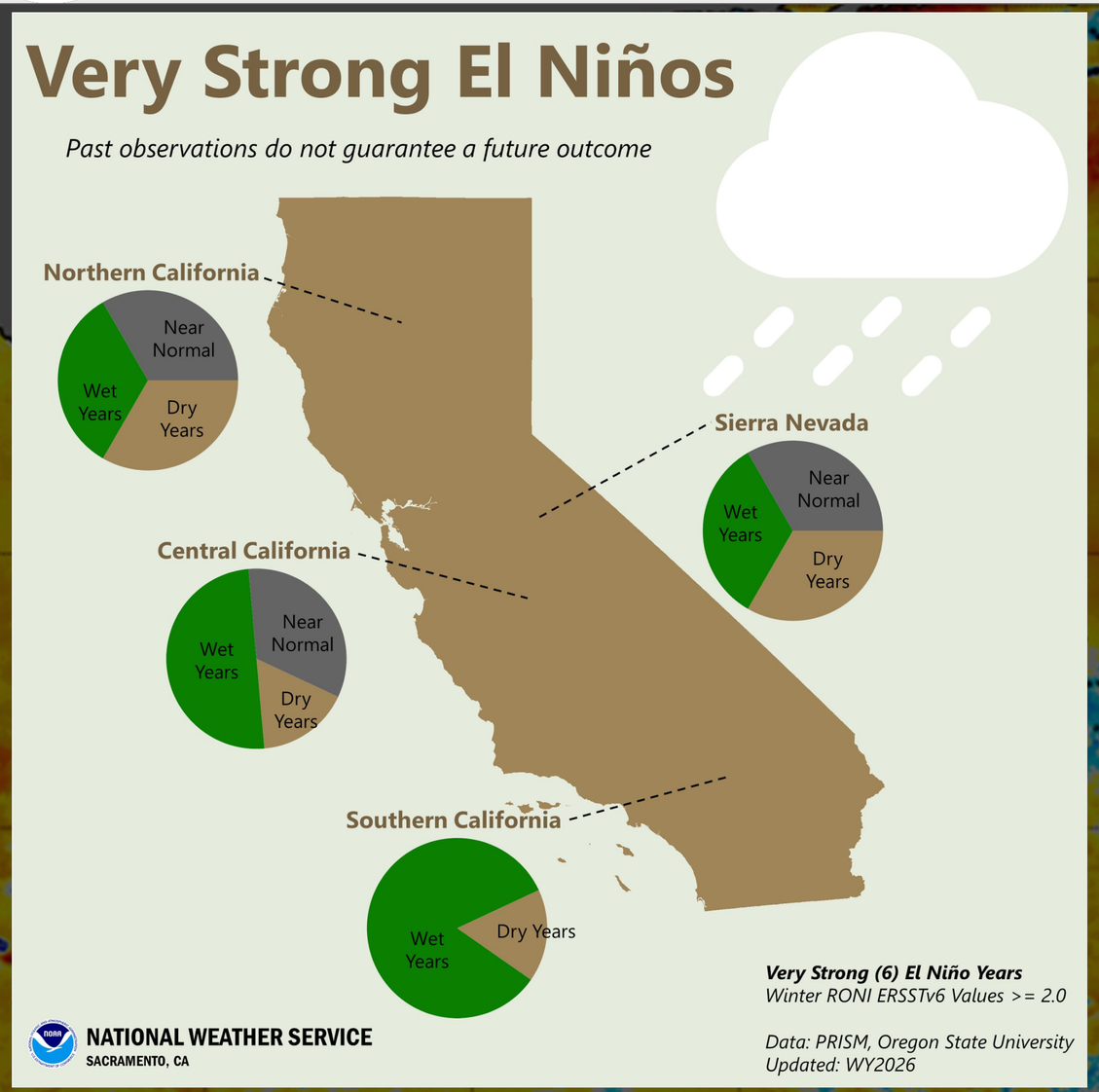
El Niño Categories		Probability of Peak Strength
≥ +0.5°C	Weak El Niño	100% *Last month's update: 100%*
≥ +1.0°C	Moderate El Niño	100% *Last month's update: 100%*
≥ +1.5°C	Strong El Niño	>99% *Last month's update: >99%*
≥ +2.0°C	Very Strong El Niño	98% *Last month's update: 95%*
+2.4°C (WY1983)	Record Strength	75% *Last month's update: 69%*

Record Strength *does not guarantee* **Record Impacts**

Looking for past years' ENSO strengths? Check out: Climate Prediction Center - Relative Oceanic Niño Index (RONI)

Historical Very Strong El Niños

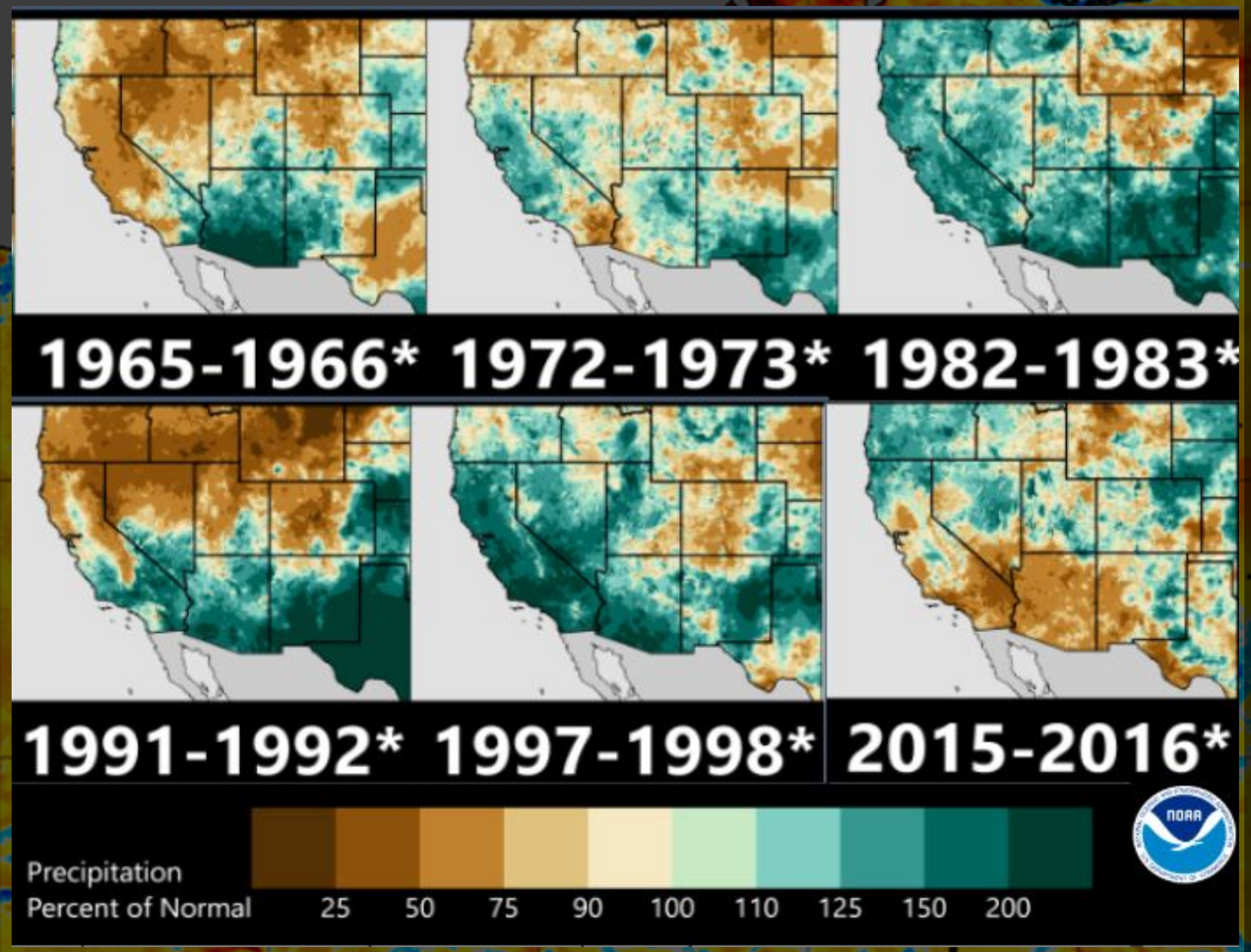
October 5, 2026
3:00 PM PDT



- There have been **6 Very Strong El Niños since 1950:** 1965-66, 1972-73, 1982-83, 1991-92, 1997-98, 2015-16.
- Of those 6, the breakdown has been…
  - Northern CA:
    - 2 Wet
    - 2 Normal
    - 2 Dry
  - Central CA:
    - 3 Wet
    - 2 Normal
    - 1 Dry
  - Sierra Nevada:
    - 2 Wet
    - 2 Normal
    - 2 Dry
  - Southern CA:
    - 5 Wet
    - 0 Normal
    - 1 Dry

Historical Very Strong El Niños

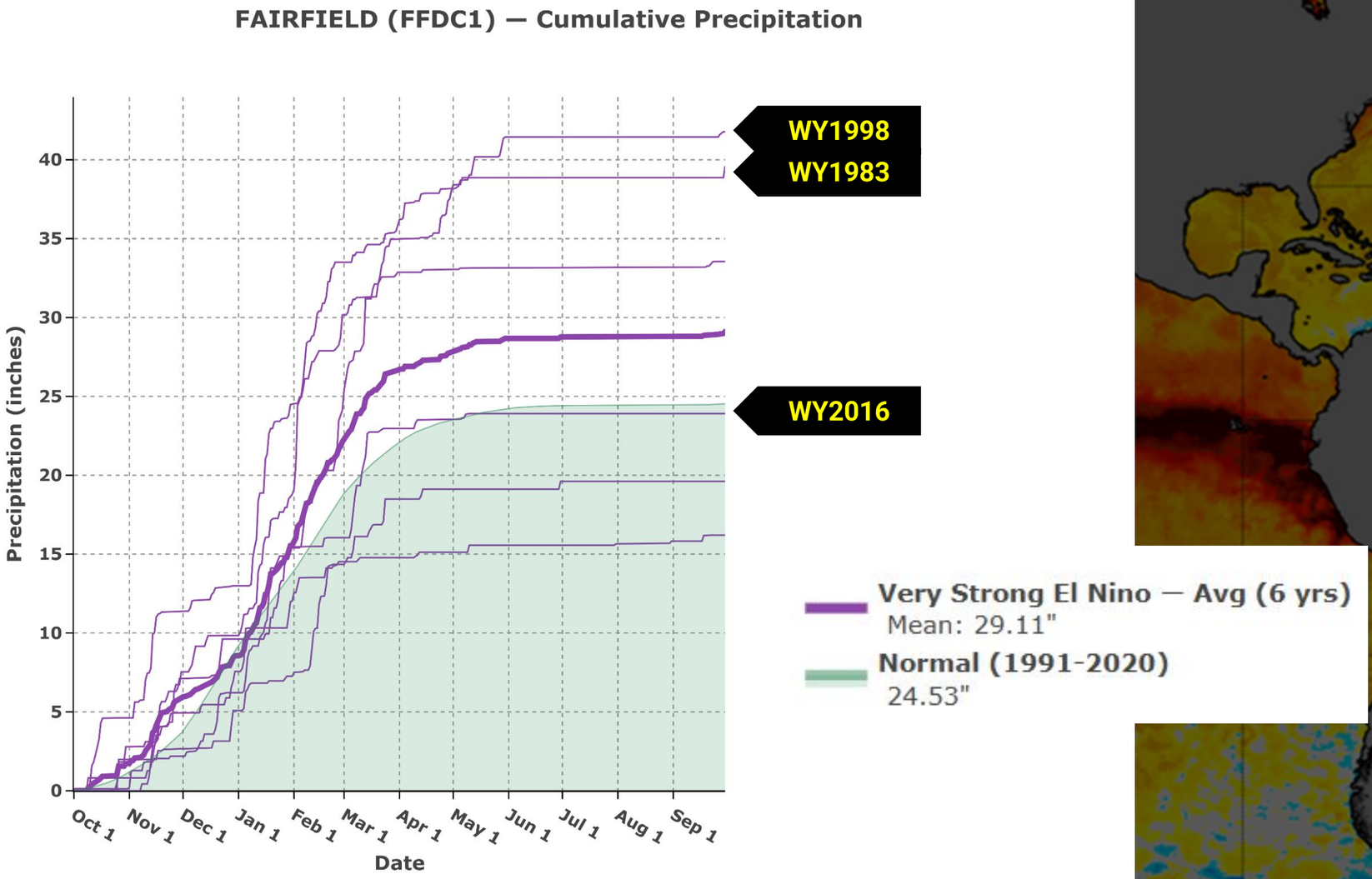
October 5, 2026
3:00 PM PDT



- There have been **6 Very Strong El Niños since 1950:** 1965-66, 1972-73, 1982-83, 1991-92, 1997-98, 2015-16.
- Of those 6, the breakdown has been…
  - Northern CA:
    - 2 Wet
    - 2 Normal
    - 2 Dry
  - Central CA:
    - 3 Wet
    - 2 Normal
    - 1 Dry
  - Sierra Nevada:
    - 2 Wet
    - 2 Normal
    - 2 Dry
  - Southern CA:
    - 5 Wet
    - 0 Normal
    - 1 Dry

Very Strong El Niños in Fairfield…

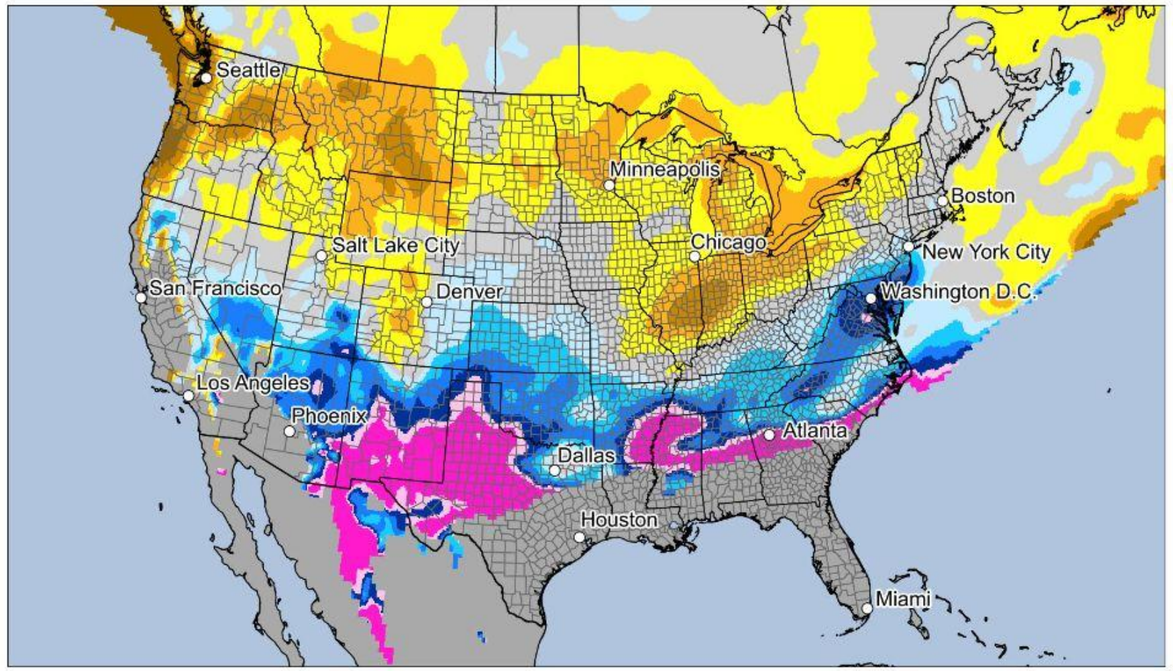
October 5, 2026
3:00 PM PDT



Snowfall during Strong/Very Strong El Niños

October 5, 2026
3:00 PM PDT

Snowfall Departure for Dec-Feb (Str/Very Str Ninos)



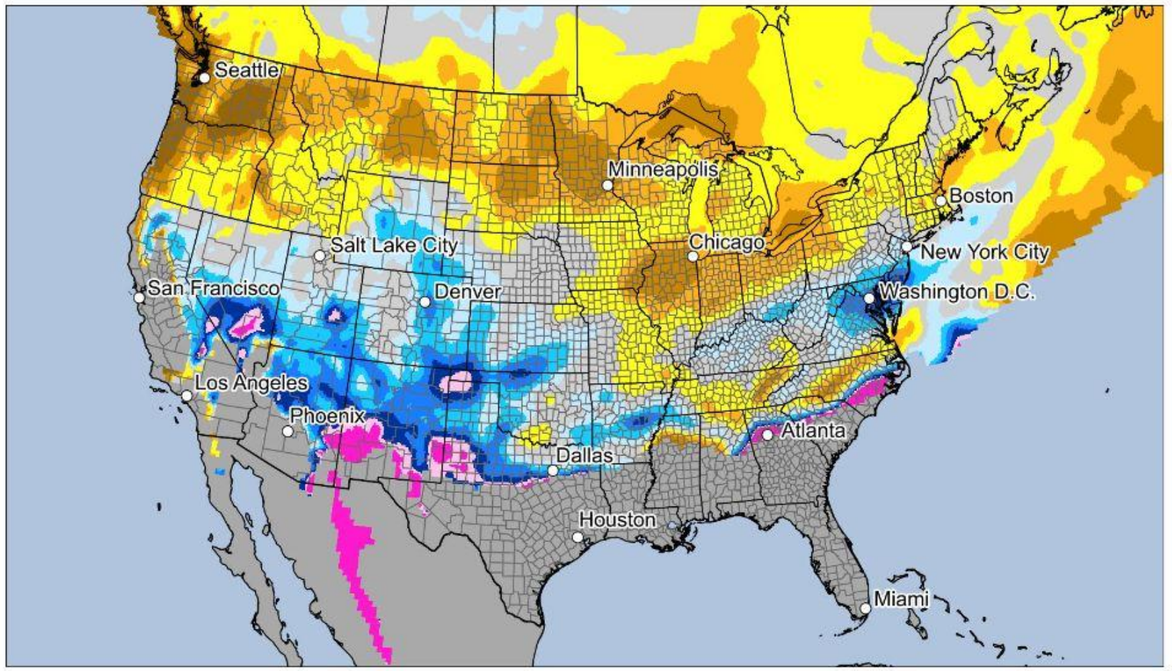
Source: ERA5 Reanalysis
Composite of 11 years since 1950.
Map by: Brian Brettschneider

Years: 1958, 1966, 1973, 1983, 1988, 1992, 1998, 2003, 2010, 2016, 2024

50% 75% 85% 95% 105% 115% 125% 135% 145% 155%

Percent of (Detrended) Average(Since 1950)

Snowfall Departure for Feb-Apr (Str/Very Str Ninos)



Source: ERA5 Reanalysis
Composite of 11 years since 1950.
Map by: Brian Brettschneider

Years: 1958, 1966, 1973, 1983, 1988, 1992, 1998, 2003, 2010, 2016, 2024

50% 75% 85% 95% 105% 115% 125% 135% 145% 155%

Percent of (Detrended) Average(Since 1950)

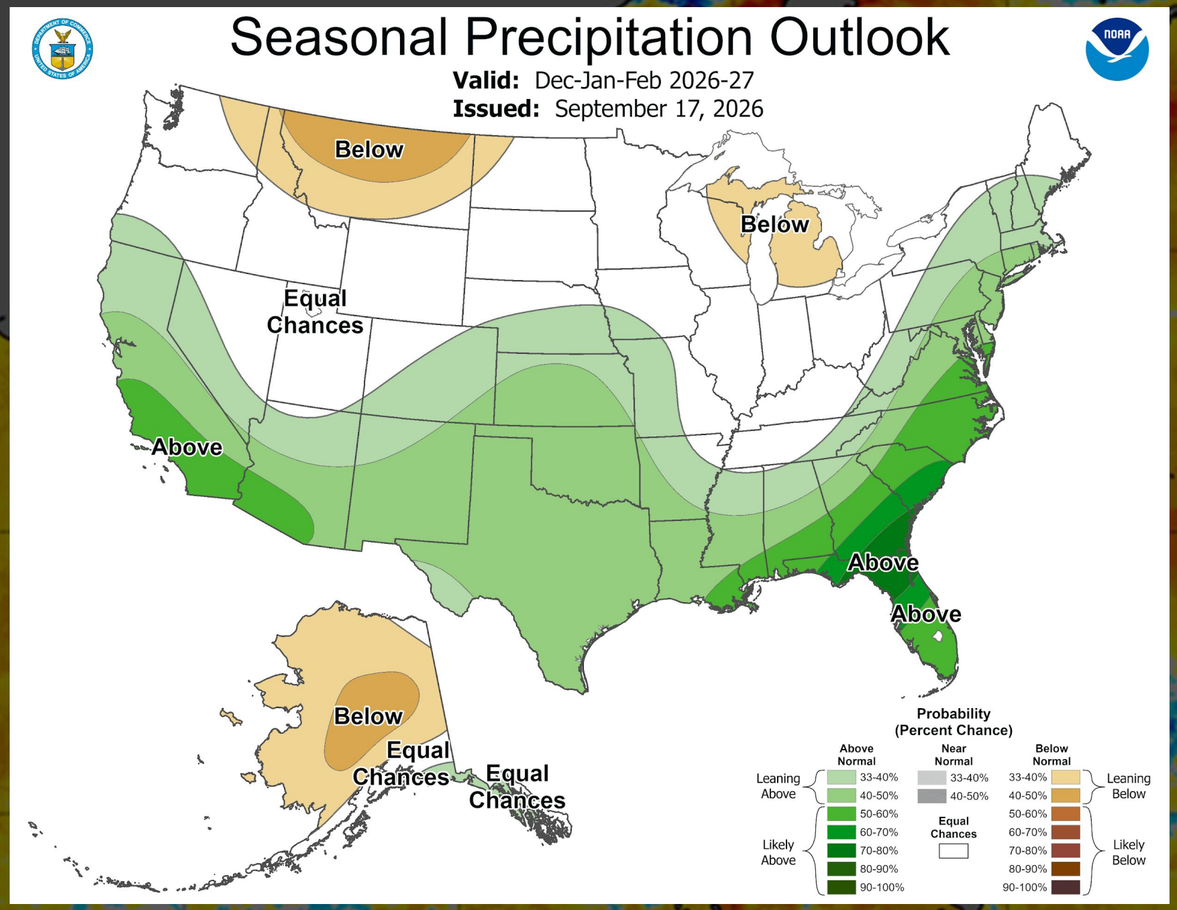
In general, above average snowfall at higher elevations and below normal snowfall at lower elevations.

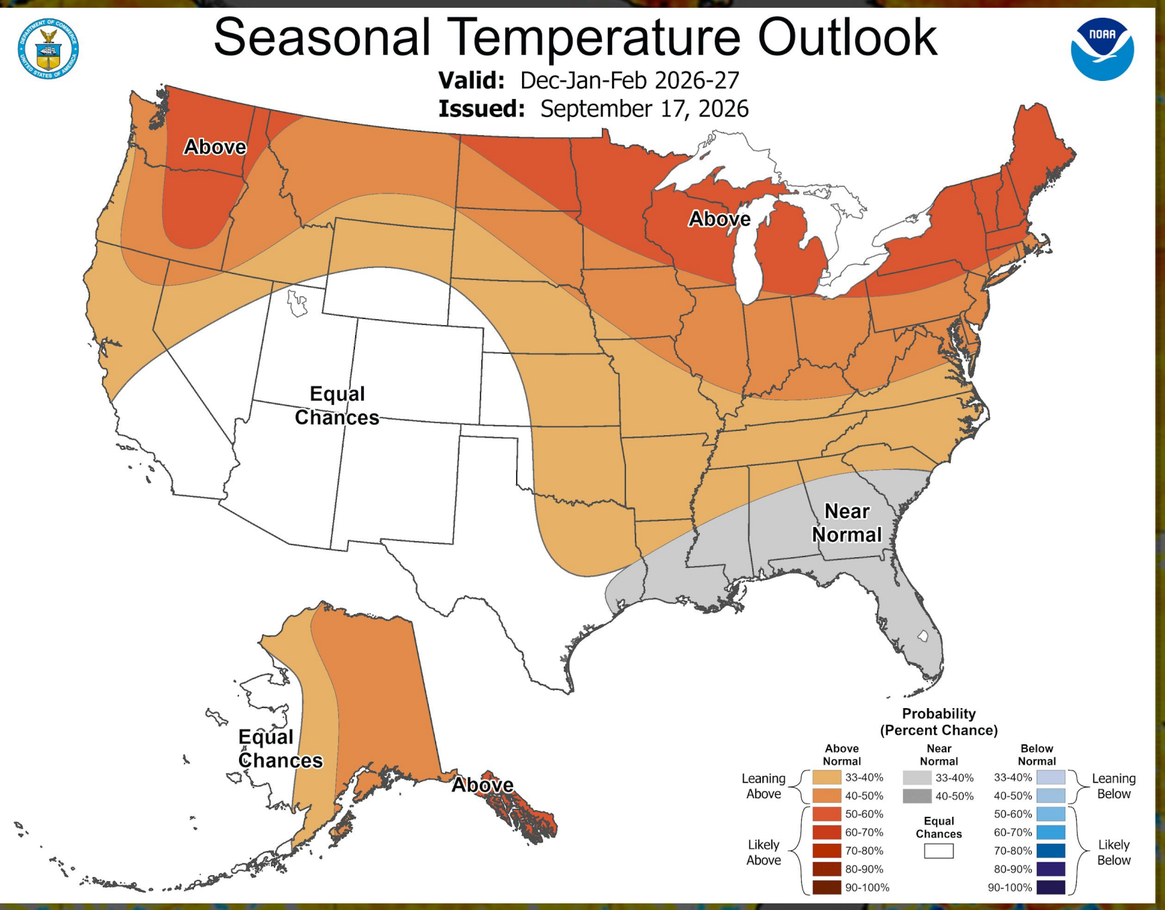
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

Official CPC Outlook: Dec-Jan-Feb

October 5, 2026
3:00 PM PDT





NorCal Precipitation:
Leaning Above Normal

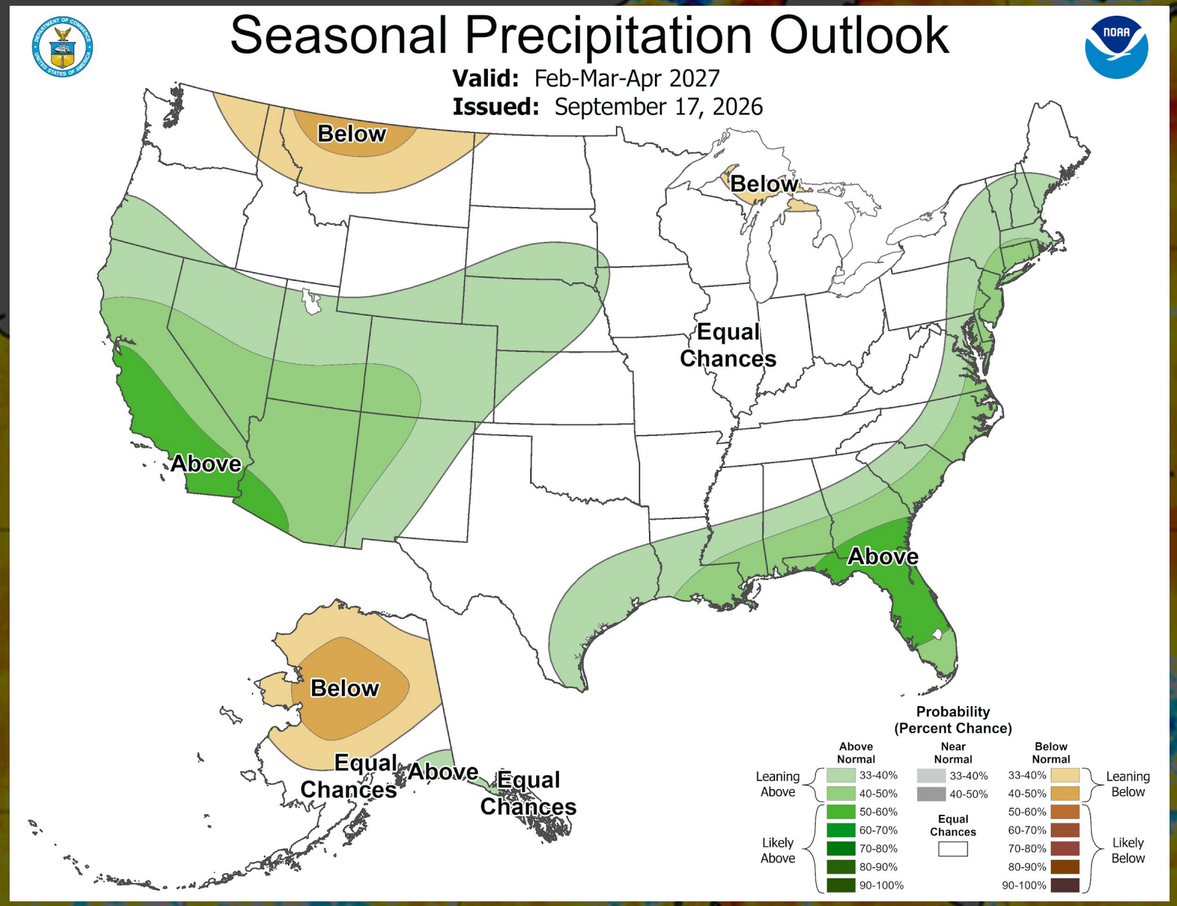
NorCal Temperatures:
Leaning Above Normal

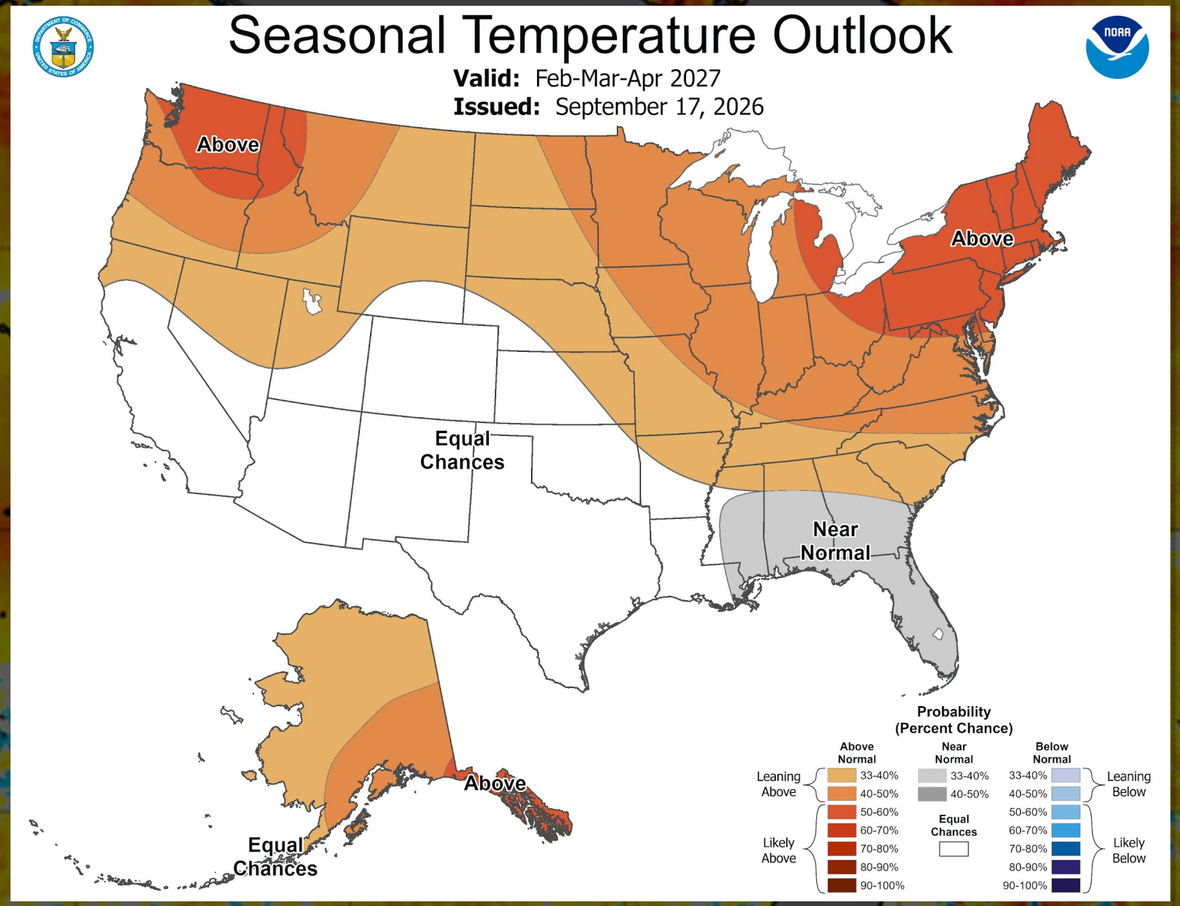
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

Official CPC Outlook: Feb-Mar-Apr

October 5, 2026
3:00 PM PDT





NorCal Precipitation:
Leaning Above Normal

NorCal Temperatures:
Equal Chances to Leaning Above Normal

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

What We Know & What We Don't Know

October 5, 2026
3:00 PM PDT

✅El Niño is already here with a 75% chance of a record level event.

✅El Niño in Northern California can bring mixed results - have had dry, near normal, or wet winters.

✅El Niño causes higher than normal sea surface levels. Combined with King Tides or a winter storm, there is increased chance for coastal & Delta flooding & erosion

✅Individual storms can define a season for a community.

✅We are closing out the Water Year with nearly all the major reservoirs in good shape.

🤷How many winter storms will impact us?

🤷How strong the winter storms will be?

🤷Will a series of storms impact the state?

🤷How much will it rain or snow at a location?

🤷What specific flooding may (or may not) occur?

→ These are not reliably predictable on a seasonal-level; information becomes more apparent in the *weather* forecast within 1-2 weeks.

NOAA SST Anomalies

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

Overall Key Points for El Niño

October 5, 2026
3:00 PM PDT

- El Niño conditions are present and will strengthen into the Northern Hemisphere winter 2026-27.
- There is a 98% chance of a very strong El Niño during fall/winter.
- There is a 75% chance of a historic event that would exceed the strengths of previous El Niños dating back to 1950.
- Even very strong El Niño events do not lead to the expected impact everywhere, but stronger events can more significantly tilt the odds in favor of expected outcomes.
- During the summer/fall months, El Niño can lead to increased tropical activity in the eastern Pacific. This can cause remnant moisture, thunderstorms, etc into CA depending on the pattern.
  - This has been the case so far this summer-early fall!

El Niño *Shifting Actions Timeline*

Seasonal Outlooks

KNOW



Know how El Niño can change weather risks in your area.



Know your home insurance policies. Flood insurance is often a separate policy.

Monthly Outlooks

PREPARE



Prepare your home by clearing brush and debris from drains and gutters.



Obtain/check flood remediation items such as sandbags and pumps.

Weekly Outlooks

REVIEW



Review the contents of your emergency supply kit. Replenish any medicine or other items as needed.



Review your family communication plan.

Weather Outlooks

ACT!



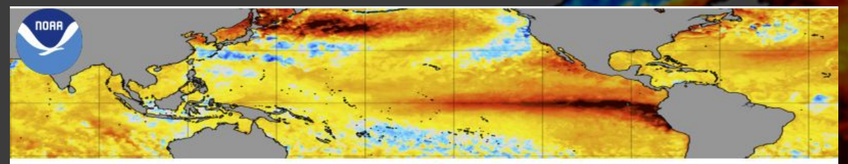
Be ready to act in the days ahead of forecasted hazards.

This could include securing loose outdoor items, deploying sandbags, or even preparing for evacuation.

weather.gov

El Niño Info

October 5, 2026
3:00 PM PDT



El Niño in California: Information & Preparedness Guide

Early September 2026 Update

What is El Niño?

- El Niño refers to the warm phase of the El Niño-Southern Oscillation (ENSO) climate pattern, characterized by unusually warm ocean surface temperatures in the central and eastern tropical Pacific Ocean.
- El Niño is an oceanic phenomenon. It is not a storm or a series of storms.
- In California, El Niño can significantly influence atmospheric steering currents and storm track, often altering typical seasonal precipitation, ocean temperatures, and coastal weather hazards.

What is the Forecast for 2026-2027?

- A strong El Niño has already developed in the eastern tropical Pacific Ocean.
- There is a very high likelihood (90% chance) of a very strong El Niño event through the fall and winter.
- There is a high likelihood (69% chance) of a historic event that would exceed the strength of previous El Niño events dating back to 1950.
- Stronger El Niño events can more significantly tilt the odds in favor of expected outcomes but even very strong El Niño events do not lead to the expected impact everywhere.



What are the *Potential* Weather Hazards during El Niño? (These are not a guarantee!)

- **Enhanced Heavy Rainfall:** A warmer ocean increases the amount of available moisture in the atmosphere. This can shift global storm tracks and enhance precipitation in winter storms, leading to prolonged rain events, flash flooding, and urban drainage overflow.
- **Landslides and Debris Flows**: Heavy rainfall on saturated hillsides can increase the risk of mudslides and debris flows—especially in recent burn scars and steep topography across coastal ranges.
- **Coastal Erosion & Storm Surge**: Winter storms can bring large waves and storm surge to coastlines. In addition, higher ocean levels due to warmer than normal waters can lead to more severe coastal erosion and coastal flooding, especially during periods of high tides.
- **Snowpack Dynamics**: While warm ocean temperatures often bring warmer storm systems (raising rain-snow elevations), strong El Niño cycles can yield heavy Sierra Nevada snowpack at higher elevations, impacting spring melt runoff.

How Should You Prepare?

- Prepare for winter storms like you do every winter in California with heightened awareness.
- Clear storm drainage systems and complete maintenance on vulnerable infrastructure.
- Forecasts, details, and impacts from potential winter storms come into view in the one to two week forecast. Coordinate with your local NWS office for briefings or visit weather.gov for the latest forecasts, watches, and warnings!

NATIONAL WEATHER SERVICE - CALIFORNIA WEATHER FORECAST OFFICES

National Oceanic and Atmospheric Administration • U.S. Department of Commerce

El Niño Info One-Pager

https://www.weather.gov/media/sto/pdf/ElNinoinCalifornia.pdf

NOAA SST Anomalies

NWS Timeline of Products

October 5, 2026
3:00 PM PDT

READY → **SET** → **GO**

Outlook or Partner Email	Watch	Advisory	Warning
Risk of weather hazard in the next 7 days Could pose a threat to life and property Prepare a Plan of Action	Risk of weather hazard in the next 2-5 days Timing and details still uncertain Could pose a threat to life and property Have a Plan of Action	Weather hazard is imminent or occurring Could cause significant inconvenience Use Caution	Weather hazard is imminent or occurring Weather hazard poses a threat to life/property Take Protective Action

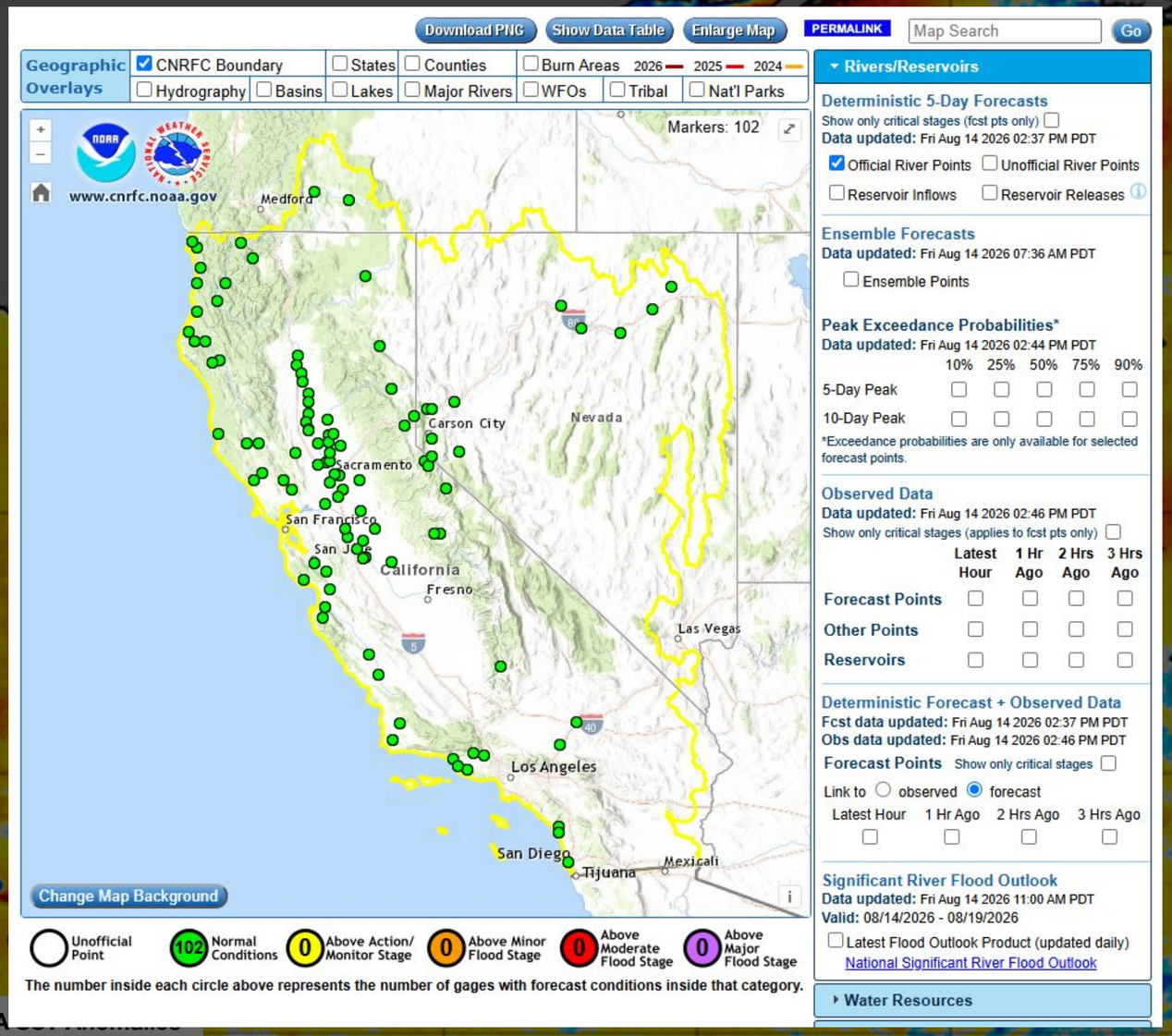






Weather & Water Resources

October 5, 2026
3:00 PM PDT



California-Nevada River Forecast Center

https://www.cnrfc.noaa.gov/

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

National Weather Service
Sacramento, CA

Weather & Water Resources

October 5, 2026
3:00 PM PDT

https://www.weather.gov/forecastpoints

Table updated: 949 am PDT Fri. 5/26/2023 (Last Update: 27 minutes ago)
Click for Text Forecast
STO Forecast Discussion
1 miles NW of Sacramento, CA

Weekly Summary

	Fri May 26	Sat May 27	Sun May 28	Mon May 29	Tue May 30	Wed May 31	Thu Jun 1
Max Temp, °F	77	81	77	78	79	79	79
Min Temp, °F	60	53	55	53	54	53	53
Max Heat Index, °F	77	80	76	78	79	78	78
Max Wind, mph	12	12	12	14	15	14	14
Min Wind, mph	8	7	7	7	7	9	8
Max Wind Gust, mph	17	18	18	20	23	22	21
Max Prob. of Precip., %	3	1	2	1	1	5	5
Max Dew Point, °F	54	55	53	51	53	53	52
Min Dew Point, °F	51	49	51	49	50	49	49
Max RH, %	74	88	86	88	86	89	89
Min RH, %	42	40	45	39	38	41	40
Max Cloud Cover, %	9	39	67	34	27	36	47
Min Cloud Cover, %	0	3	14	9	13	24	11
Min Snow Level, x1000ft.	9.3	8.6	8.2	8.4	9.4	9.2	8.8

Outlooks

	Day 1	Day 2	Day 3
Severe Thunderstorm	Non-Severe Thunderstorms	Not Expected	Not Expected
Excessive Rainfall	Not Expected	Not Expected	Not Expected

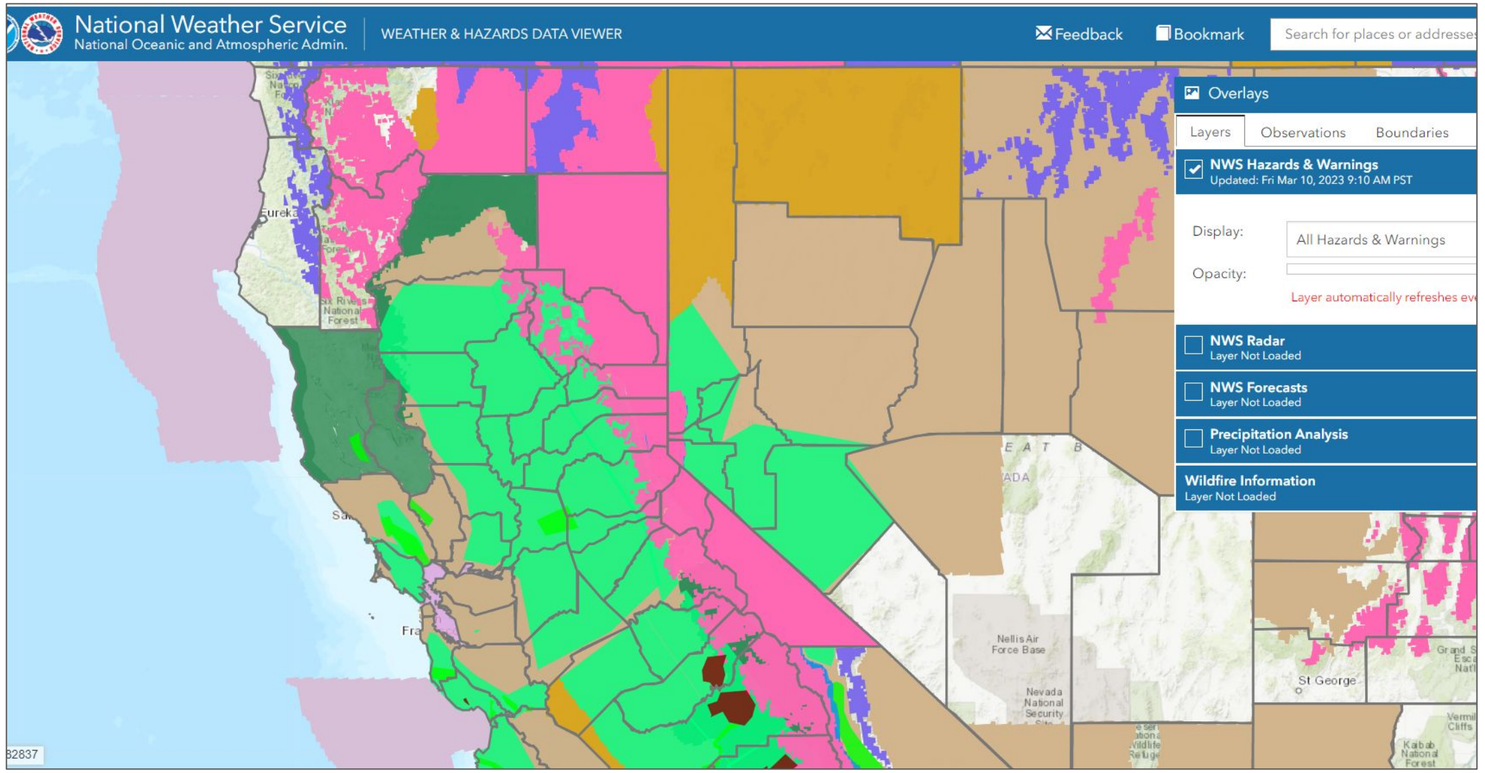
Hourly Table

Day of week:	Friday 5/26															Saturday
Time:	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	12AM	1A
Temperature (°F):	63	66	70	73	75	76	77	76	76	73	68	64	61	60	58	57
Heat Index, °F:	63	66	70	73	75	76	77	76	76	73	68	64	61	60	58	57
Wind Speed (mph):	9	9	9	9	10	10	10	12	12	12	12	12	12	8	8	8
Wind Gust (mph):	12	14	14	14	15	15	15	17	17	17	16	16	16	13	13	13
Wind Direction (°):	190	210	210	210	220	220	220	220	220	220	210	210	210	190	190	19
Wind Direction:	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Prob. of Precip. (%):	3	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1
Prob. of Thunder (%):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Precip. Amount (in.):	0.00			0.00						0.00						0.
Snow (in.):	0.0			0.0						0.0						0
Dew Point (°F):	52	52	53	53	54	52	52	52	52	52	53	52	52	51	50	51
RH (%):	67	61	54	50	48	43	42	43	43	48	58	64	70	74	76	80
Sky Cover (%):	9	3	0	1	1	0	2	1	1	8	3	1	4	2	3	4
Snow Level (x1000 ft.):	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.3	9.3	9.3	9.5	9.5	9.5

Configure Plot Order | Configure Plot Look

Hourly Graphs
Temperature, °F

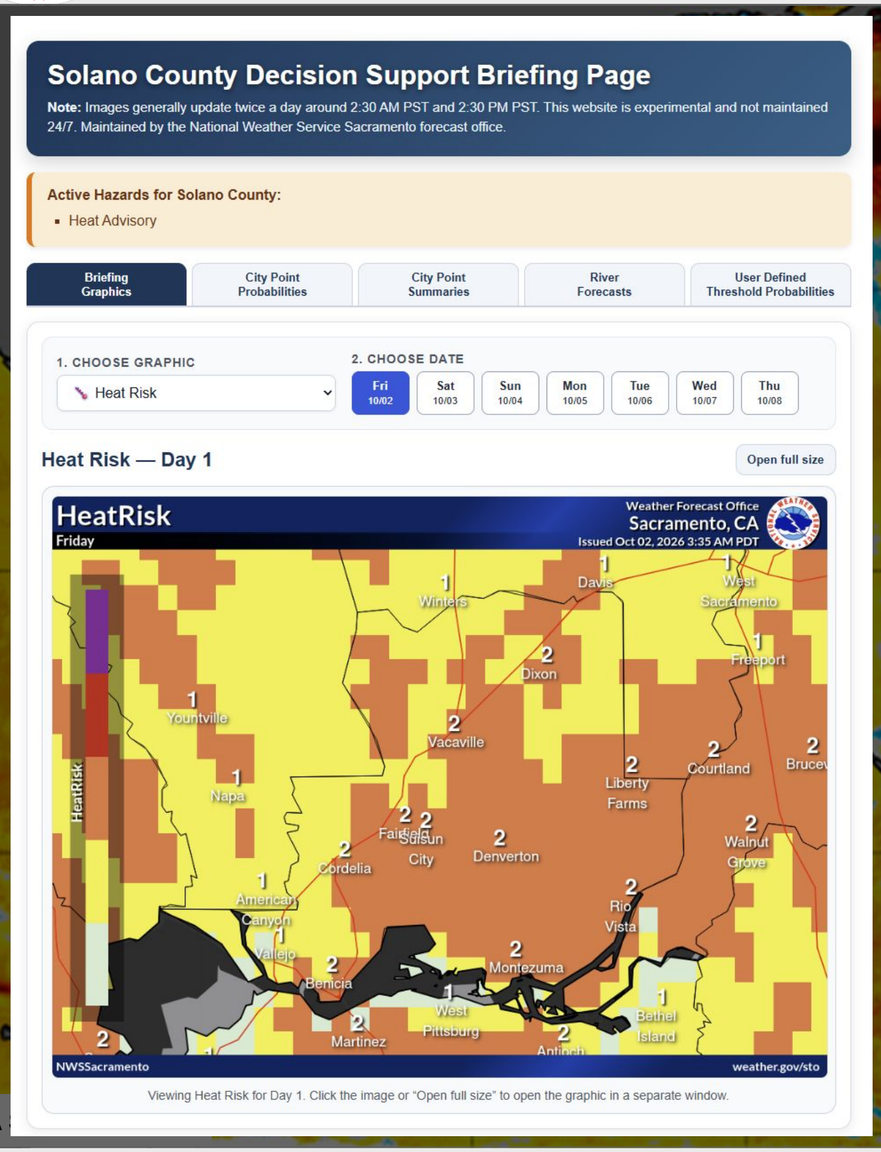
https://www.wrh.noaa.gov/map/?wfo=st



can view Watch,Warning, Advisories in effect as well as current/past weather observations, forecasts, etc

Weather & Water Resources

October 5, 2026
3:00 PM PDT



Solano County Briefing Page:

Updated weather forecast graphics with deterministic and probabilistic data.

- Temperature
- Precipitation
- Wind
- HeatRisk

https://www.weather.gov/sto/solanocoBriefingPage

Weather & Water Resources

October 5, 2026
3:00 PM PDT

National Weather Service
National Oceanic and Atmospheric Administration

Weather Forecast Office
Sacramento
Friday, Oct 22, 2021

Significant Rain and Snow this Weekend into Early Next Week

KEY POINTS

- Periods of moderate to locally heavy rain could cause small stream and urban flooding
- Possible debris and ash flows on recently burned areas
- Breezy winds Sunday
- Winter Storm Watch in effect Sunday evening into Tuesday

CHANGES FROM PREVIOUS BRIEFING

- Winter Storm Watch issued for Sunday night into early Tuesday
- Flood Watch in effect from Late Saturday night through Sunday

WEATHER RISK OUTLOOK

Risk levels incorporate potential impacts from weather hazards and likelihood of occurrence.

	Fri 10/22	Sat 10/23	Sun 10/24	Mon 10/25	Tue 10/26	Wed 10/27	Thu 10/28
Valley	Rain	Rain	Rain/Wind	Rain	Rain	Rain	
Foothills	Rain/Debris Flows	Rain	Rain/Wind/Debris Flows	Rain	Rain	Rain	
Mountains	Rain/Debris Flows	Rain	Rain/Wind/Debris Flows	Snow	Snow	Rain	

Risk Levels	Little to None	Minor	Moderate	Major	Extreme

DETAILS

Valley, Foothills, Mountains

Rain

Impacts:
- Moderate to heavy rain may lead to roadway ponding and minor flooding of poor drainage areas, creating difficult commute conditions
- Periods of heavy rain with ash and debris flows possible on recently burned areas

Timing:
- Through this afternoon

Confidence:
- High

- Moderate to locally heavy rain through the afternoon today
- Ponding on roadways and increased travel times
- Isolated afternoon thunderstorms possible in northern Sacramento Valley and surrounding foothills

Snow

Impacts:
- Mountain travel delays and chain controls possible

Timing:
Friday

Confidence:
Medium

- Snow levels 7000 - 9000 feet decreasing through the day

Partner Emails

Online at: weather.gov/sto/briefing

To register, go to:

https://partnerservices.nws.noaa.gov/registration/?office=STO

NOAA SS

Weather & Water Resources

October 5, 2026
3:00 PM PDT

Forecast for Calaveras County OES
Gann Burn Scar Operations

NWS Sacramento
24/7 POC: 916-979-3045
7:59am PDT Wed, Aug 26, 2026

Next Update: As Needed/Requested

EXAMPLE

OVERVIEW

An atmospheric river will arrive to northern California on Wednesday, bringing with it the threat of strong winds and heavy rainfall. Rainfall rates at the Gann Fire are forecast to exceed the established debris flow thresholds with medium confidence. The heaviest rainfall is expected to occur on Wednesday night and into Thursday morning when there is also a risk of isolated thunderstorms. As a result, a Flash Flood Watch has been issued for the burn Scar through Friday morning.

Please refer to the attached precipitation timing loop as well as forecast rainfall maps.

The thresholds for the Gann Fire are: 0.30" in 15 minutes, 0.45" in 30 minutes, and 0.60" in 60 minutes.

WEATHER RISK OUTLOOK

Wed, 08/26	Thu, 08/27	Fri, 08/28
Debris Flows	Debris Flows	Debris Flows

Outlook Risk Levels	Little to None	Minor	Moderate	Major	Extreme

FORECAST DETAILS FOR GANN BURN SCAR *(All times PDT)*

Wednesday 08/26	0600-1200	1200-1800	1800-0000
Weather	Clear 0% Chance of Precip	Clear 0% Chance of Precip	Clear 0% Chance of Precip
Prob Thunder	0%	0%	0%
Peak Hourly Rainfall Rate	0.1"	0.2"	0.3"
Period Precipitation	0.00 in.	0.00 in.	0.00 in.
Minimum Snow Level	13300 to 13400 ft	13100 to 13400 ft	13000 to 13100 ft
Daily High/Low	High: 92°F / Low: 71°F		
Temperature	71 to 87°F	88 to 92°F	77 to 90°F
Wind	NW 5 to 10 mph Gusts to 15 mph	W 5 to 15 mph Gusts to 20 mph	NW 5 to 10 mph Gusts to 15 mph
Probability of Wind Gusts > 20 mph	60%		

Event Support:

If you have large community events or exercises upcoming, we'd love to participate or provide weather support!

- Written/email briefings
- Verbal briefings
- On-site deployment

Please reach out to courtney.carpenter@noaa.gov
or fill out form:

https://www.weather.gov/sto/eventsupport

NOAA SST Anomalies

Thank You!

October 5, 2026
3:00 PM PDT

If you have questions, please contact:

Courtney Carpenter
Warning Coordination Meteorologist
courtney.carpenter@noaa.gov

Or

Scott Rowe
Senior Service Hydrologist
scott.rowe@noaa.gov

A forecaster can be reached 24/7
☎ (916) 979-3045

