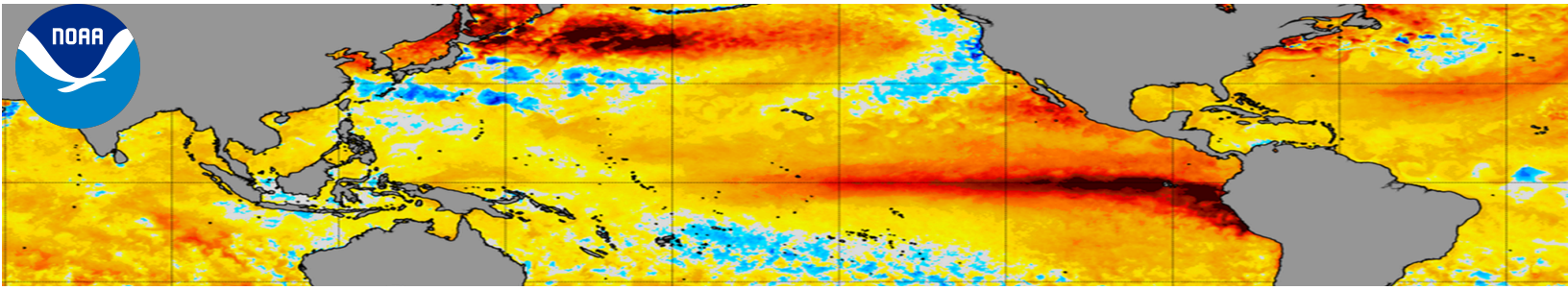


El Niño in California: Information & Preparedness Guide

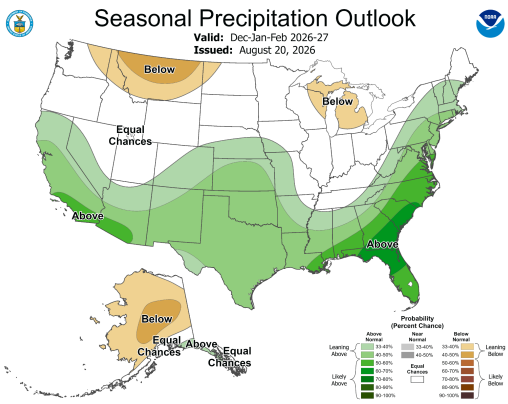
Early September 2026 Update

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.
- El Niño can significantly influence atmospheric steering currents and storm track, often altering typical seasonal precipitation, ocean temperatures, and coastal weather hazards in California.

What is the Forecast for 2026-2027?

- A strong El Niño is strengthening in the eastern tropical Pacific Ocean.
- There is a very high likelihood (greater than 90% chance) of a very strong El Niño event through the fall and winter.
- There is a high likelihood (75% 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

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