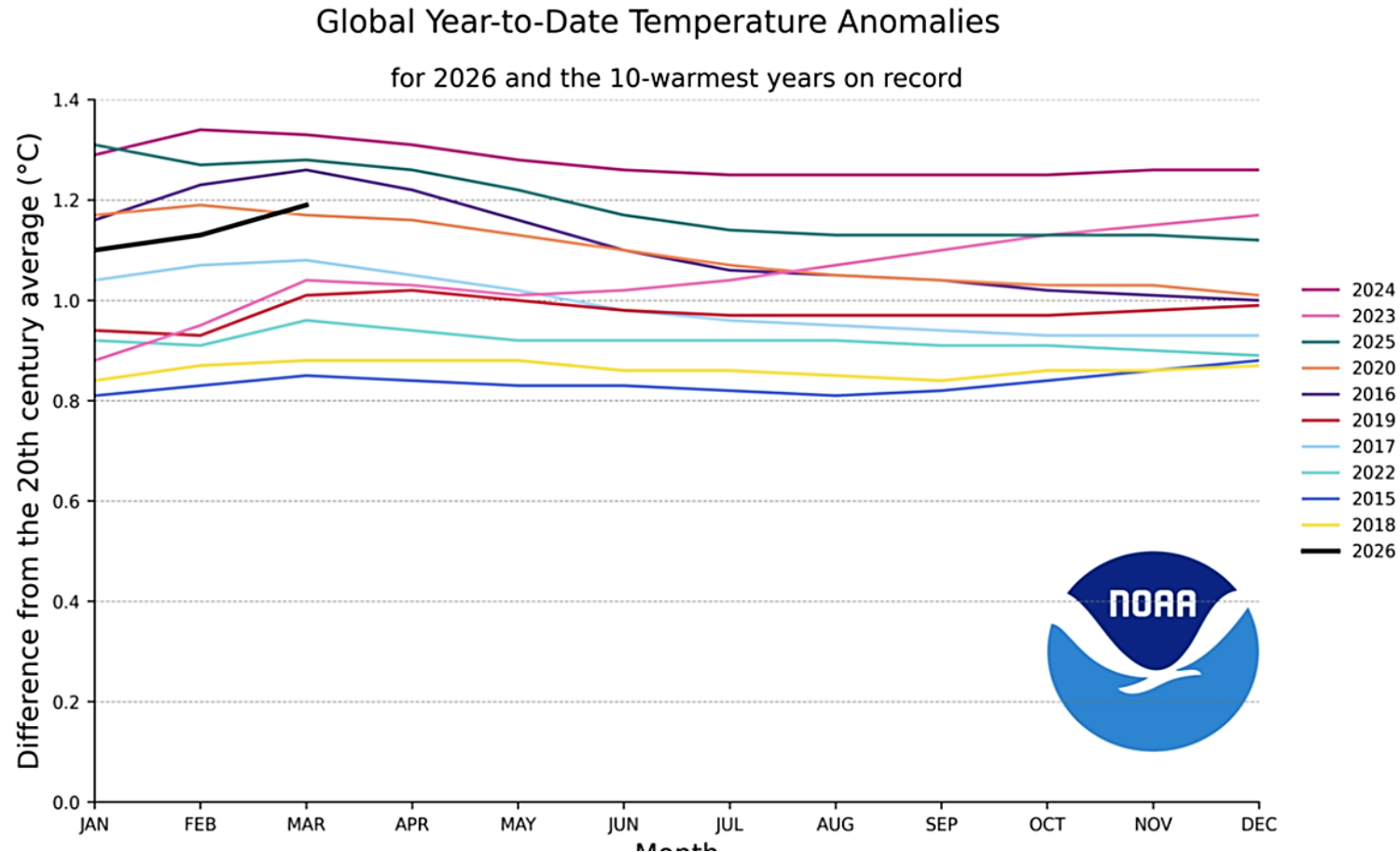


WECC Summer Outlook:

Drought and Wildfire: Water Runoff Risks as Record Heat Looms

The January–March global surface temperature was the fourth-warmest in the 177-year record at 1.19°C (2.14°F) above the 20th century average of 12.3°C (54.1°F).



Chief Meteorologist Ms. Sunny Wescott
Critical Infrastructure and Emergency Response Operations

WMO State of the Climate 2025

The decade from 2015 to 2025 has been confirmed by the World Meteorological Organization (WMO) as the hottest on record, with the past 11 years (2015–2025) being the warmest consecutive years in the WMO's 176-year dataset.

- 2025 ranks as the 2nd or 3rd warmest year (depending on the dataset), at about 1.43°C above pre-industrial levels

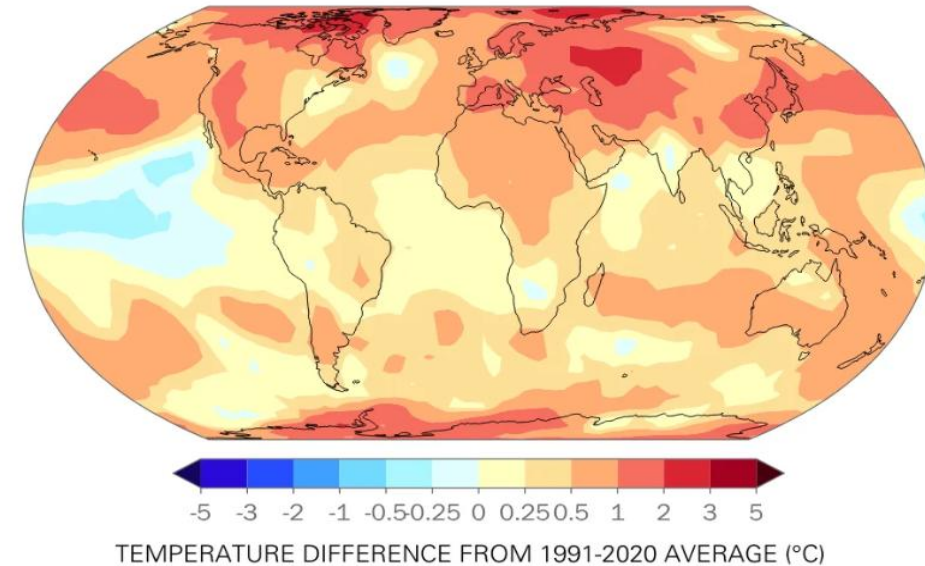
The WMO data comes just weeks after another study provided the first concrete evidence that [global warming is actually accelerating](#).

- In the [paper](#), researchers said that the Earth has warmed around 0.35C in the decade to 2025, compared to less than 0.2C per decade on average between 1970 and 2015.

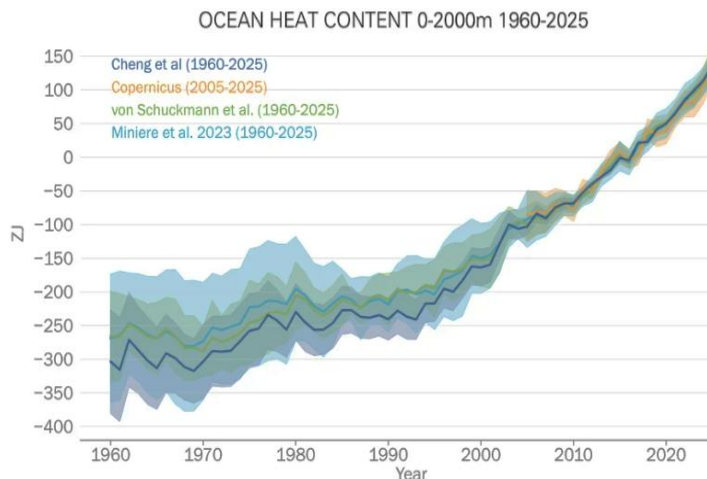
A study by charity Christian Aid last December confirmed that record-breaking heatwaves, tropical cyclones, and rainfall made 2025 one of the costliest years for climate disasters, with the [10 costliest disasters](#) alone racking up economic losses of \$120 billion.

2025 was the 2nd or 3rd warmest year on record

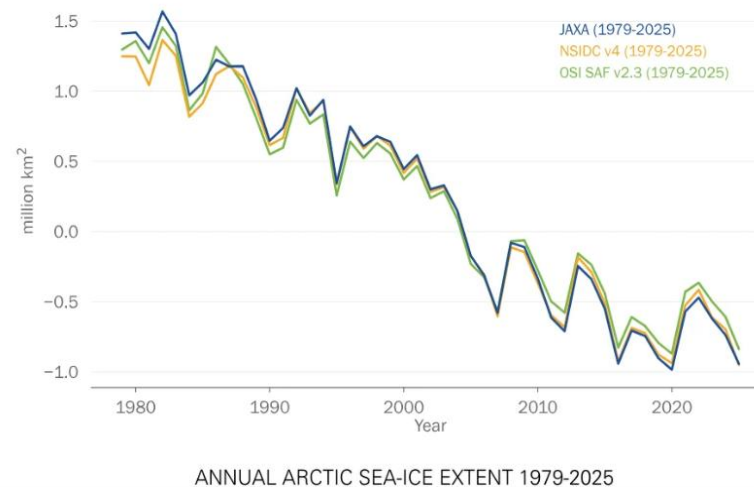
1.43 ± 0.13°C above the 1850-1900 average



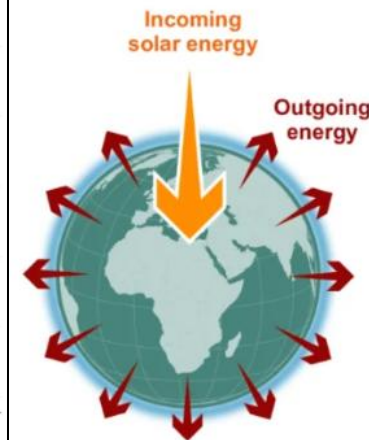
In 2025, ocean heat content reached the highest in 65-year record



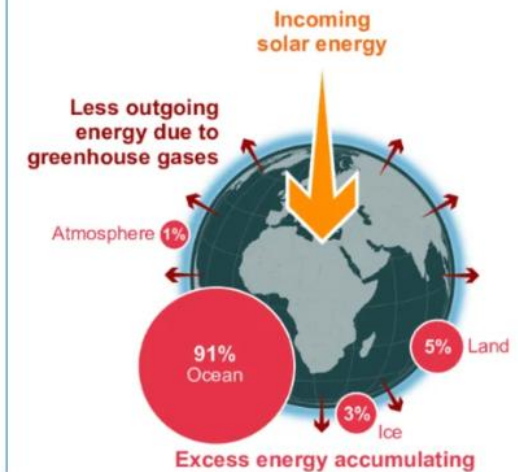
In 2025, Arctic and Antarctic sea extent were both below average



STABLE CLIMATE: BALANCED



TODAY: IMBALANCED



Widespread Anomalies: 2,981 counties across the CONUS—roughly 94% of the total area and population—set at least one daily maximum temperature record during March.

New Monthly Extremes: 1,432 counties—over half of the total area and one-third of the population—observed their single warmest March day on record (1950–Present).

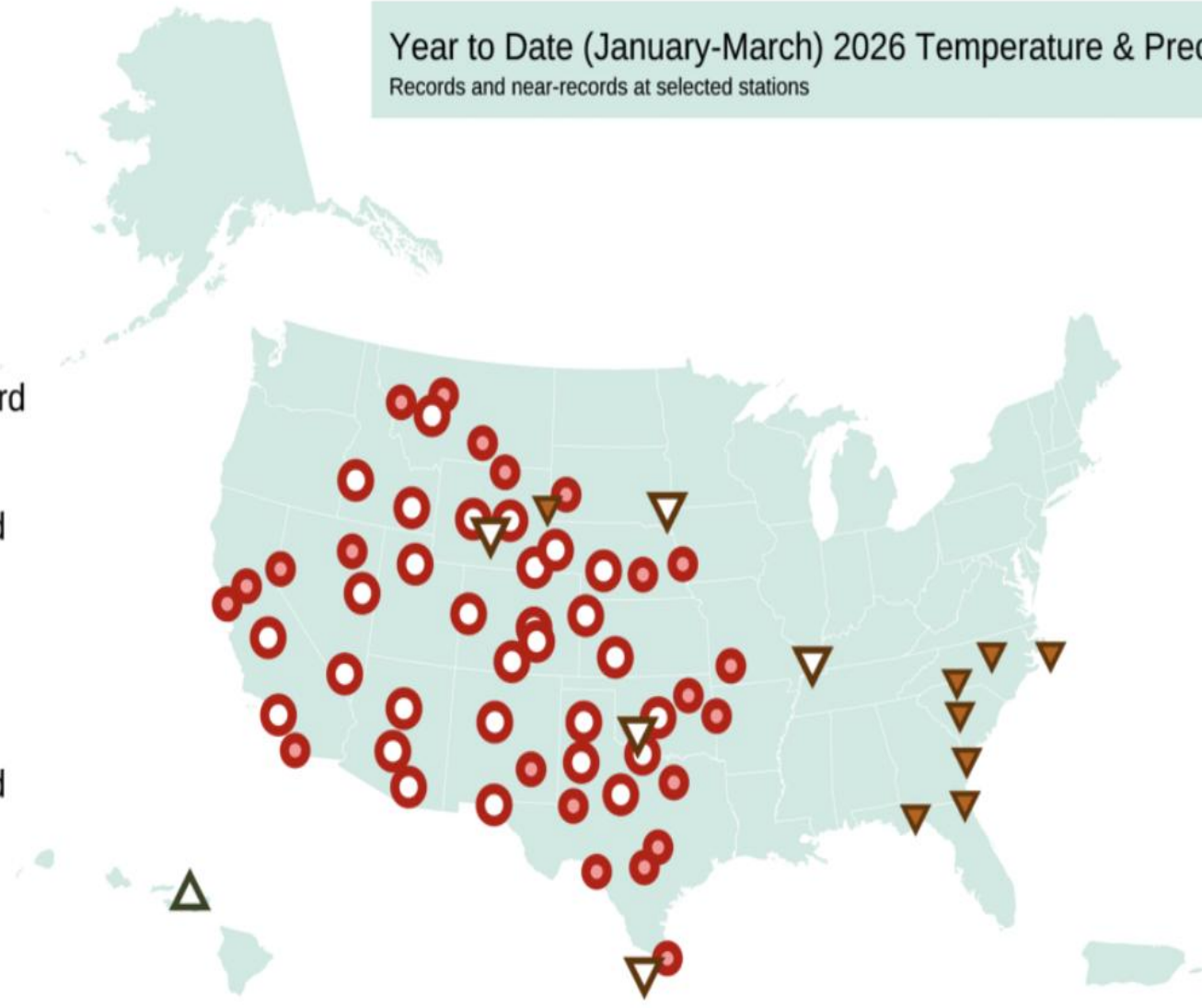
Standing Records Displaced: The spatial distribution of reigning historical records was substantially altered, with heat records in March 2026 displacing long-standing records across the West and central United States.

Advanced Seasonality: The magnitude of the heat resulted in temperatures more typical of late spring; 355 counties (18% of the total area, impacting over 32 million people) observed maximum temperatures in March that exceeded their existing all-time daily records for the month of April.

Year to Date (January-March) 2026 Temperature & Precipitation

Records and near-records at selected stations

-  Warmest on record
-  2nd / 3rd warmest
-  Coolest on record
-  2nd / 3rd coolest
-  Driest on record
-  2nd / 3rd driest
-  Wettest on record
-  2nd / 3rd wettest



Based on non-threaded station data. Temperatures are averaged since Jan 1. Stations have varying periods of record.



Please note: in order to avoid many overlapping or crowded dots in a region, a subset of only about 200 stations across the United States were considered. There are very likely many additional stations having a "top three" or "bottom three" season not depicted here. The stations under consideration are listed in the table of [Average Temperature Anomalies](#) and [Precipitation Anomalies](#).

NOAA NCEI March 2026

At the county level, more than 500 counties—covering over one-quarter of the CONUS and affecting an estimated 79 million people—recorded their warmest March on record.

The average temperature over the contiguous US (CONUS) in March was 50.85°F, 9.35°F above average, ranking as the warmest March in the 132-year record.

- **This marks the first time any month's average temperature has exceeded 9°F above its 20th-century baseline.**
- It also concludes the warmest 12-month period on record for the CONUS
- Based on the spatial extent of record-warm March conditions across the CONUS, 2026 ranks second only to 2012 in area experiencing its warmest March on record.

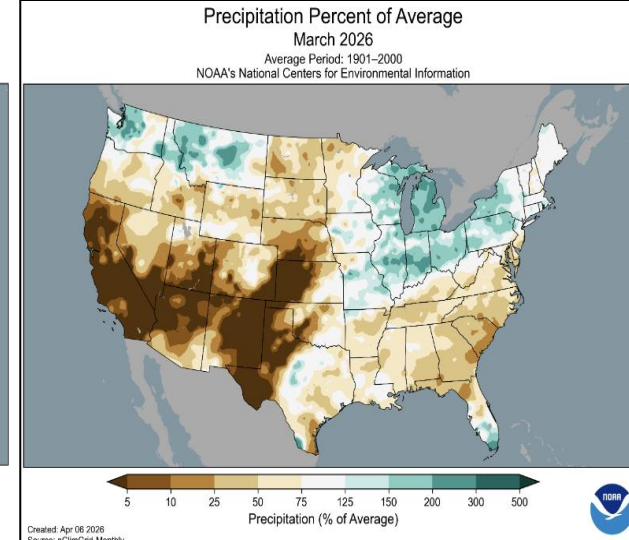
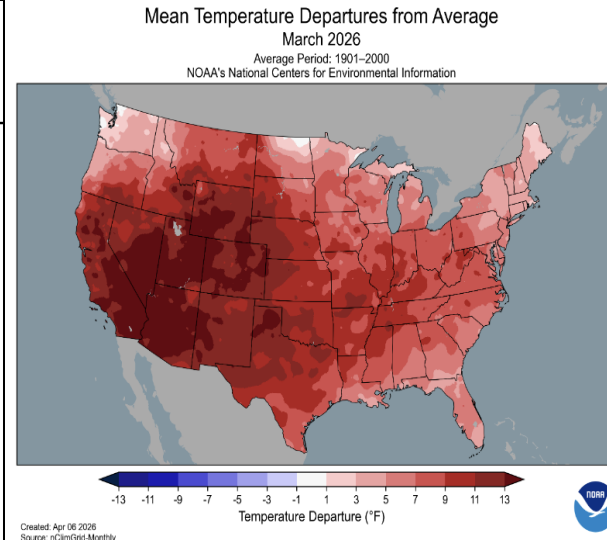
Based on NOAA climate region average temperatures, three of the nine regions—the West, Southwest and South—had their warmest March on record at more than 10°F above average, while the Northwest, Northern Rockies and Plains, Ohio Valley and Southeast each recorded one of their six warmest Marches.

Ten states set their warmest March records: Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oklahoma, Texas, Utah and Wyoming.

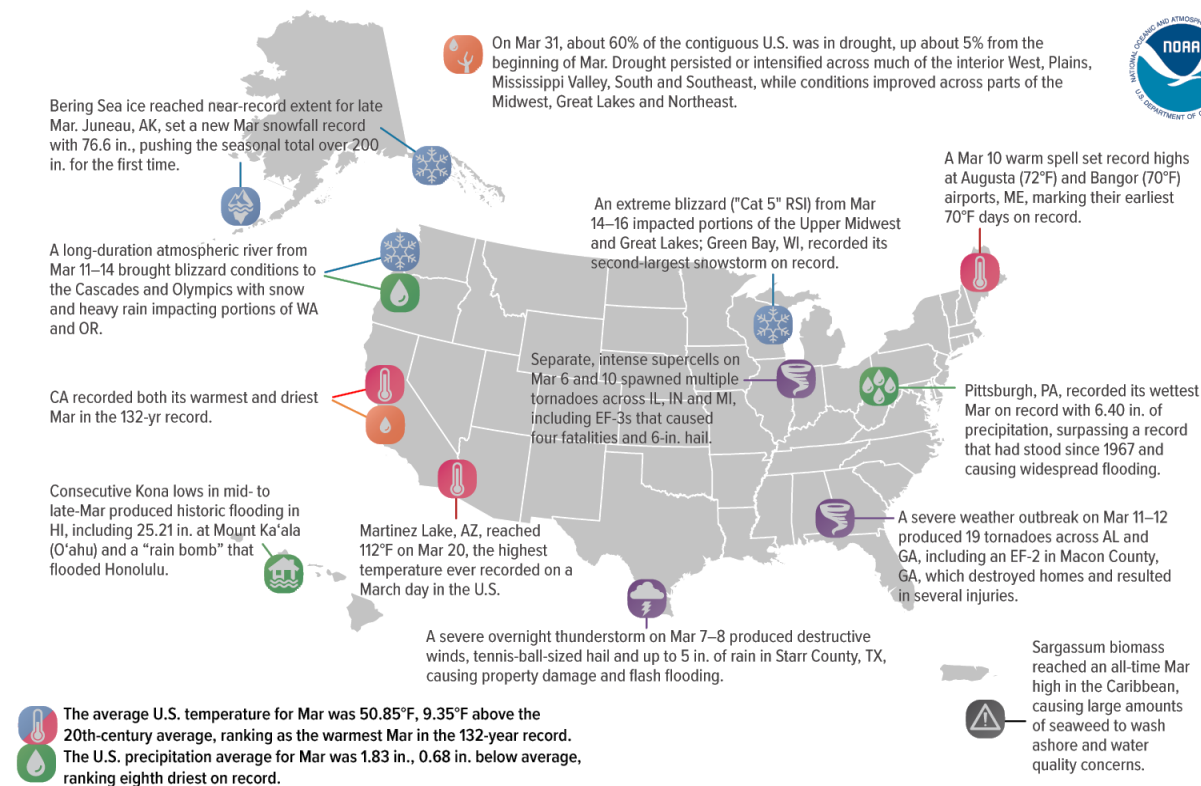
- In each of these states, the March average exceeded its April 20th-century average; in California, it was even 0.7°F above its May average.

Wyoming: As of early April, Fontenelle Reservoir was at 49% of its full storage capacity, according to the Bureau of Reclamation — despite March inflows roughly 99% of average.

The original CO River flows were allocated from 17.5 million feet, while current conditions have resulted in about 12-13 million acre-feet available.



Notable Weather and Climate Events: March 2026



March Drought

A CMOR report described conditions in Fremont County, Wyoming on March 28, 2026. "We are looking at unprecedented conditions...snowpack is the Sweetwater basin is 23% of normal, currently."

- "The lowest this producer has seen it was 52% of normal, at the beginning of May (2012). Current conditions are more severe and 5 weeks earlier than the last severe drought (2012)."
- "We are expecting significantly less available surface and groundwater throughout the season."

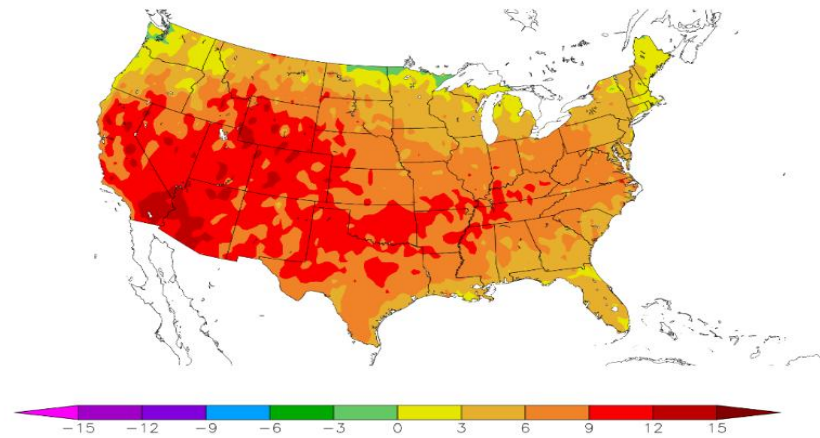
Soil quality levels are about 8 weeks ahead of typical, resulting in an even higher pull from snowmelt as it runs off and making all precipitation events less beneficial than typical.

The forecast inflow into Lake Powell was a about 36% of average by end of March.

- The Great Basin had only 16% of average and the Lower Colorado region, which encompasses most of Arizona and parts of Nevada, was at 10%.
- The Rio Grande region, covering parts of New Mexico, Texas and Colorado, was at 8%.

Snow coverage across the Western U.S. likely peaked in February at around 38% of average, a record low since records began about 26 years ago.

Departure from Normal Temperature (F)
3/1/2026 - 3/31/2026

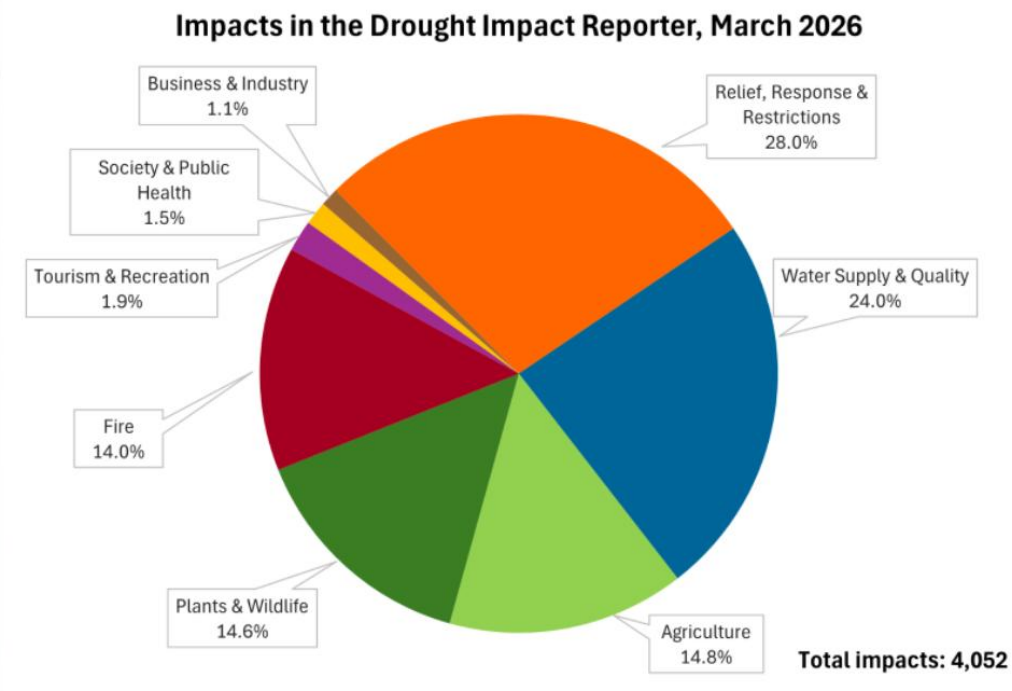
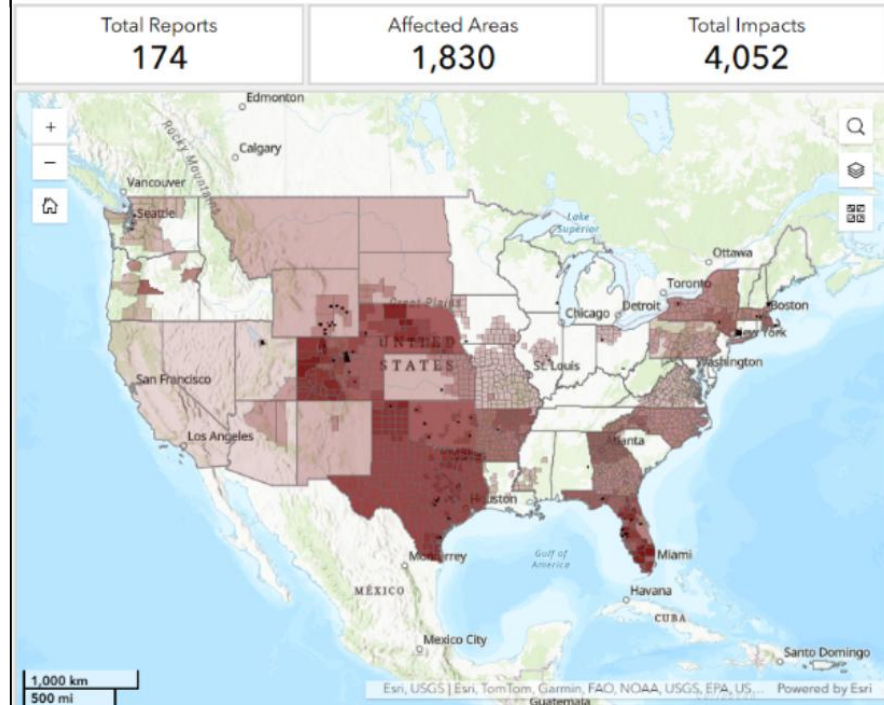
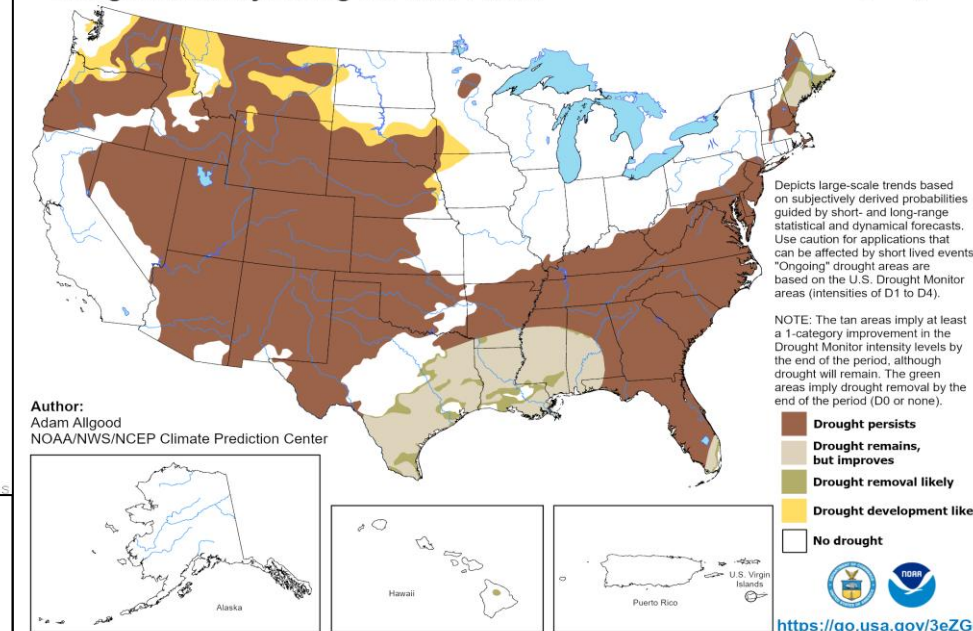


Generated 4/10/2026 using provisional data. ACIS Web Services

On March 18, Denver Water put the Shoshone call reduction agreement into effect with water rights owner Xcel Energy, which allows Denver Water to divert more water from the headwaters of the Colorado River to alleviate water shortages. The agreement reduces the call at the Shoshone hydroelectric plant in Glenwood Canyon by half, from 1,408 cubic feet per second to 704 cfs.

U.S. Monthly Drought Outlook
Drought Tendency During the Valid Period

Valid for May 2026
Released April 30, 2026



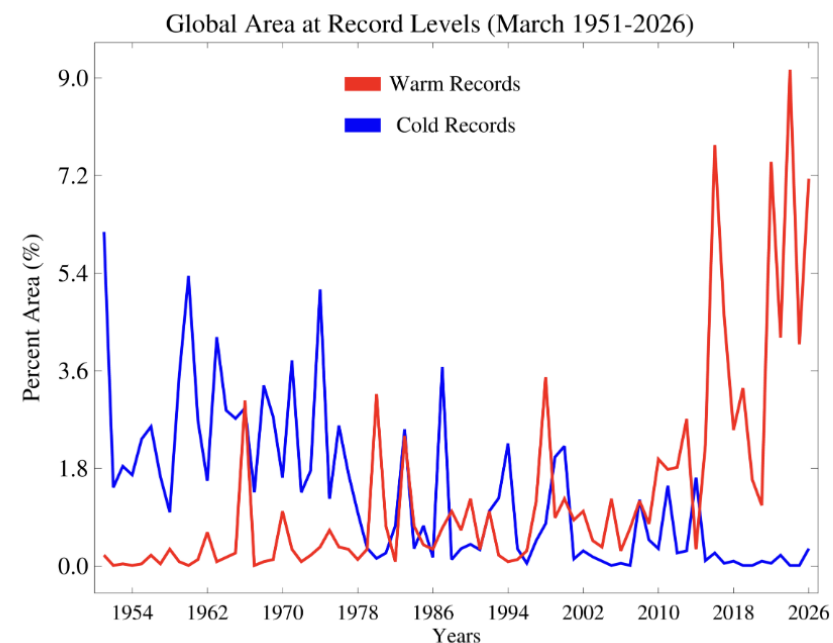
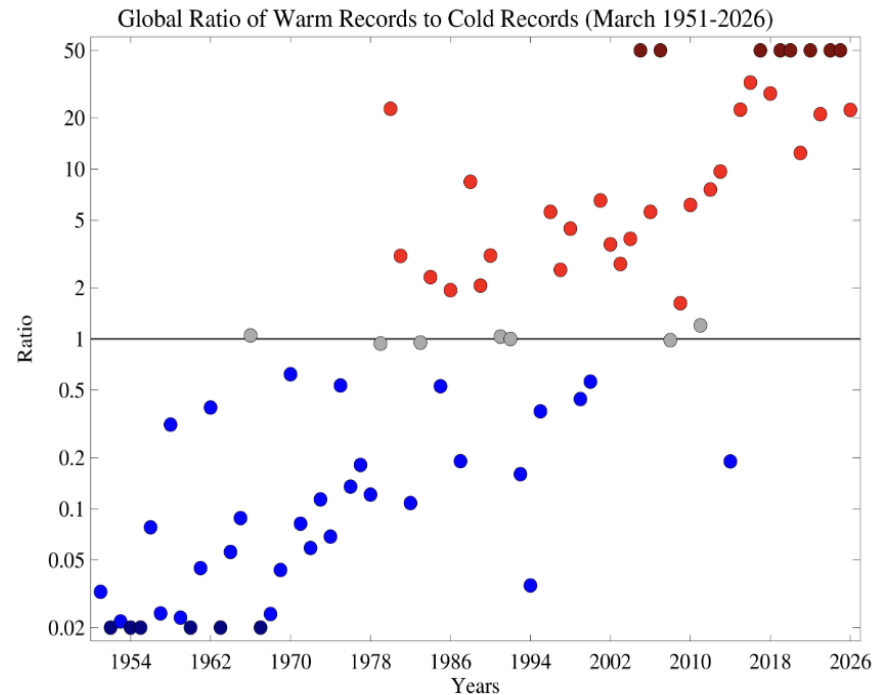
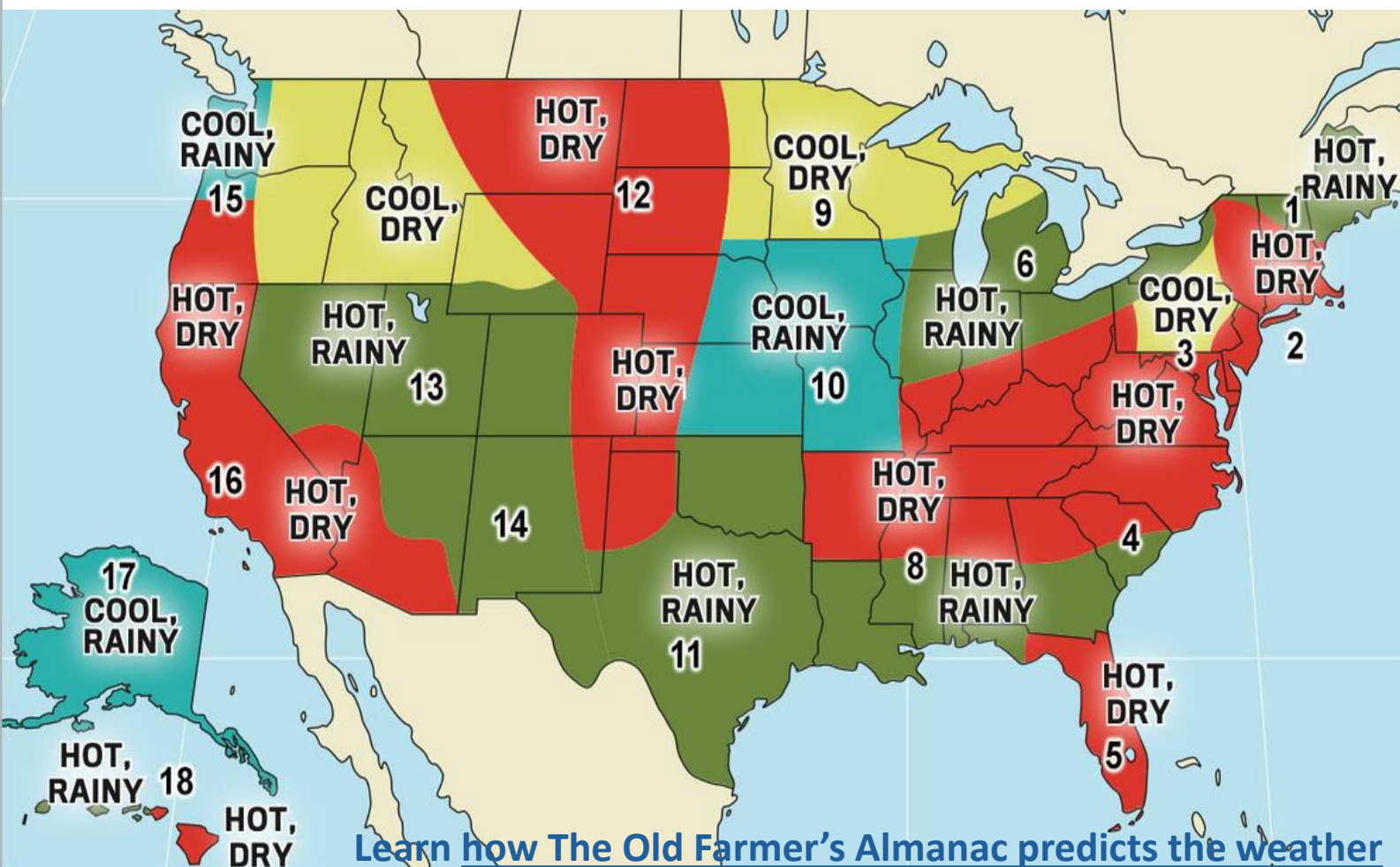
Abnormal Winter Warmth Causes Ripples

Broken down by surface type, 7.0% of the global land area and 7.2% of the global oceans experienced record-high temperatures.

- This marked the third-highest March percentage for land and the fourth-highest for oceans.

The January–March global surface temperature was the fourth-warmest in the 177-year record at 1.19°C (2.14°F) above the 20th century average of 12.3°C (54.1°F).

The Old Farmer's Almanac Summer 2026 Weather Predictions

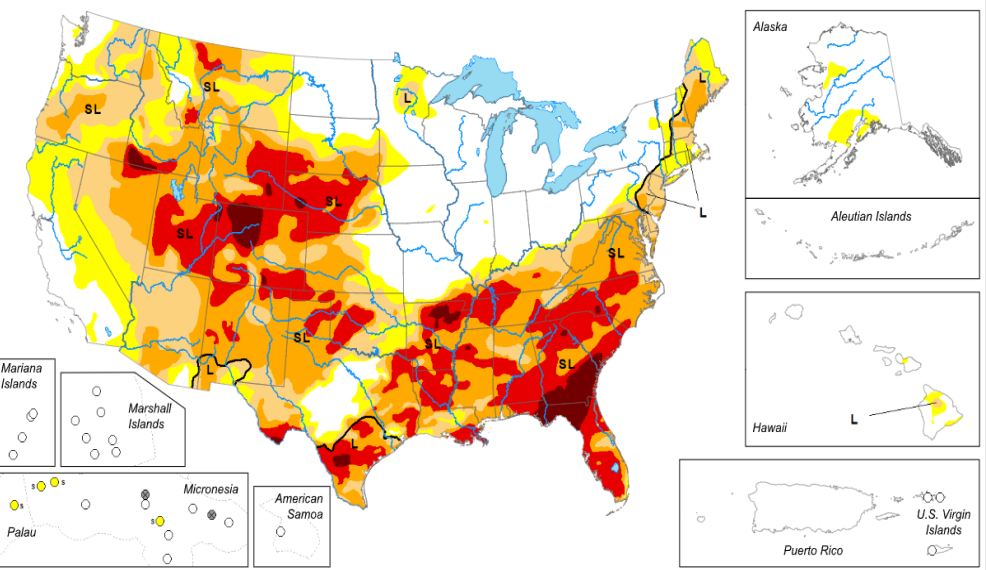


Current Drought Situation 2026

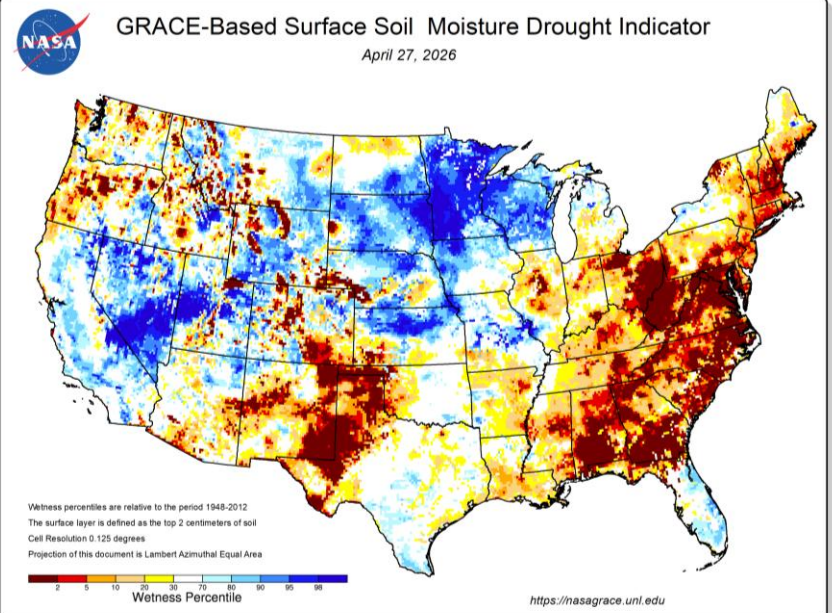
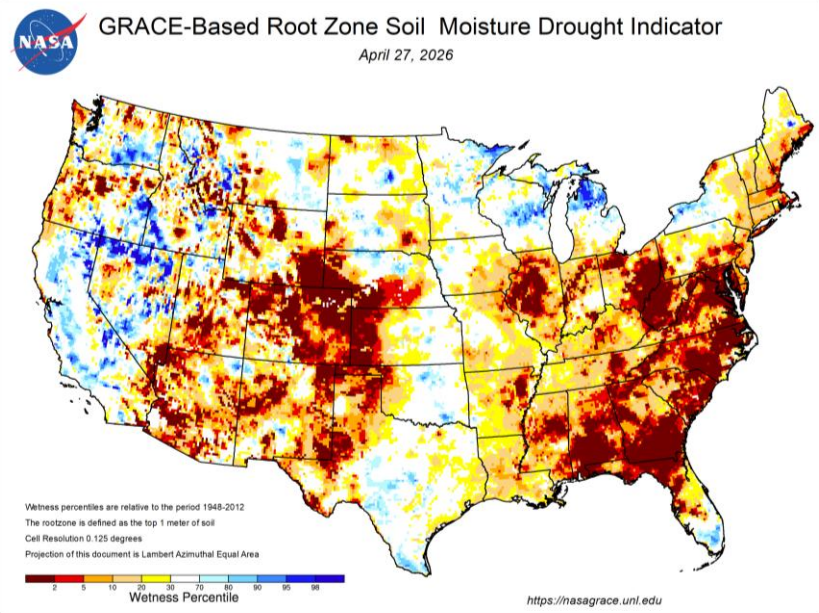
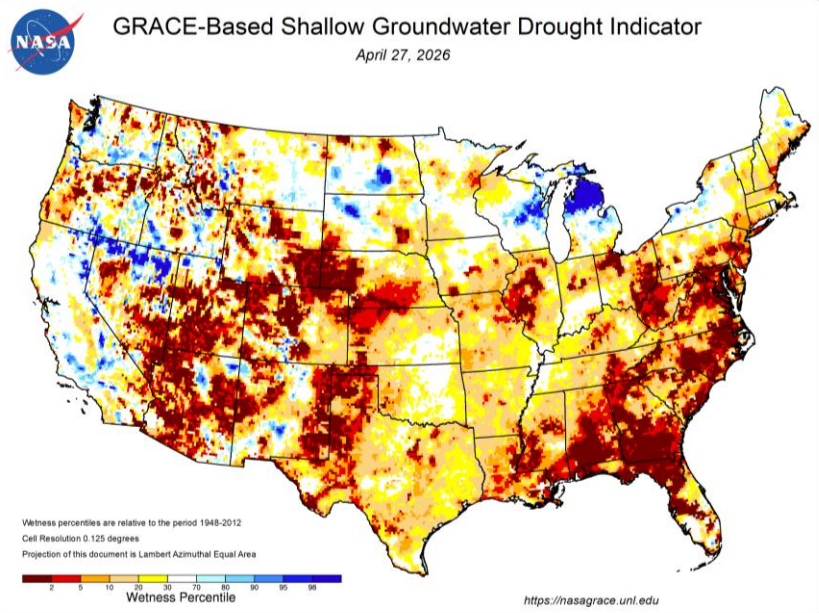
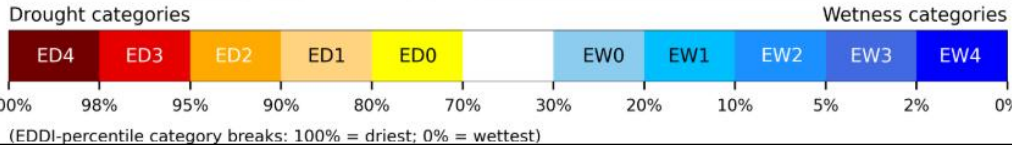
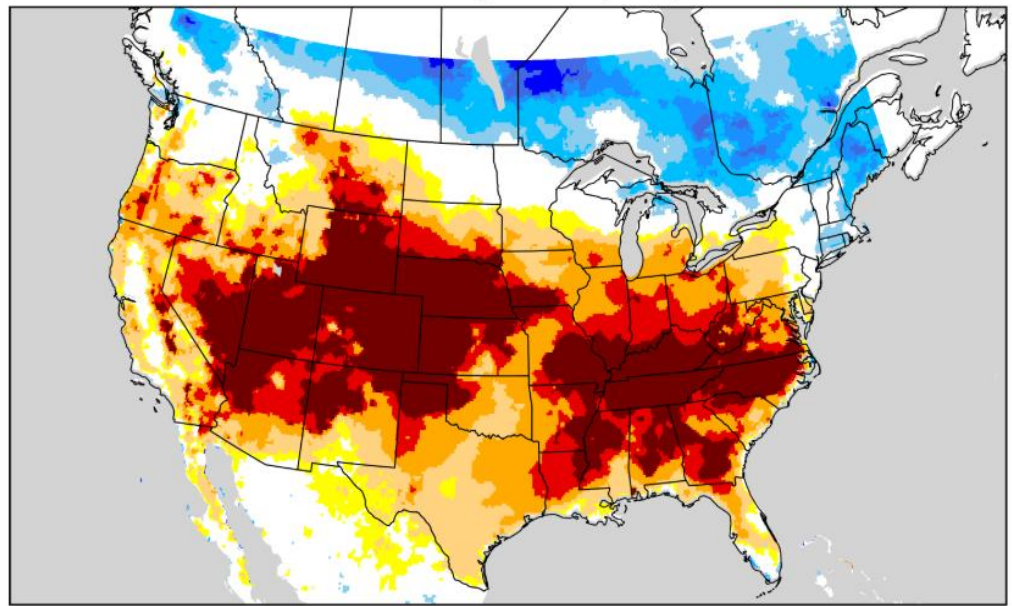
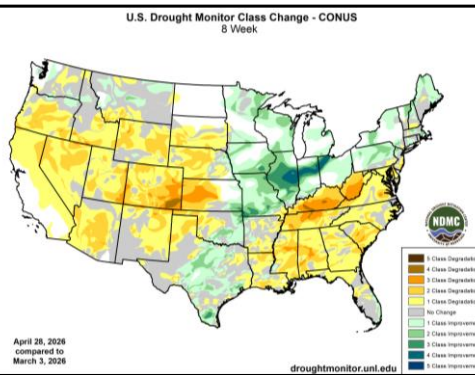
5-month EDDI categories for April 25, 2026

Map released: April 30, 2026
Data valid: April 28, 2026

View grayscale version of the map



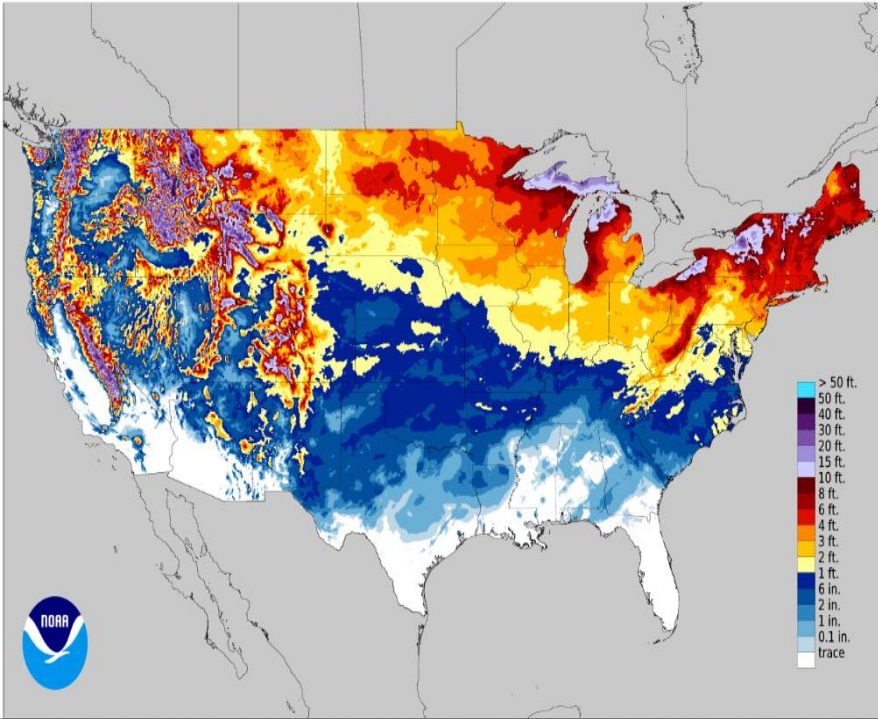
Evaporative demand forecasts high demand, driven by low humidity and high temperatures, creating a "thirsty" atmosphere which rapidly strips moisture from fuel, making it highly flammable and increasing the likelihood of extreme, fast-spreading fires.



Snow Levels Today

National Snowfall Analysis: accumulation from 2025-09-30 to 2026-04-30

Issued 2026-04-30 14:02:58 UTC



Utah: Nine of the state's 50 largest reservoirs are already at 40% capacity or less.

Utah and other Colorado River Basin states met to approve [a federal emergency plan](#) to release between 660,000 acre-feet and 1 million acre-feet of water from Flaming Gorge, near the Utah-Wyoming border, so it can flow to Lake Powell at the Utah-Arizona border.

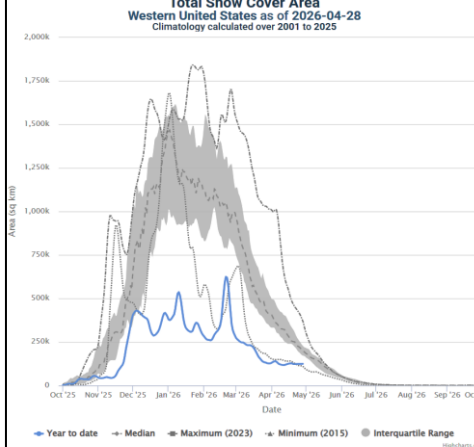
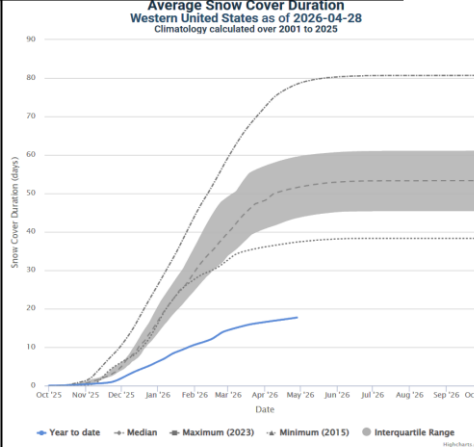
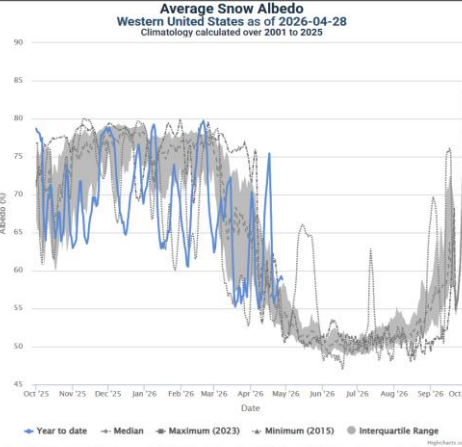
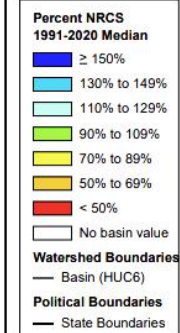
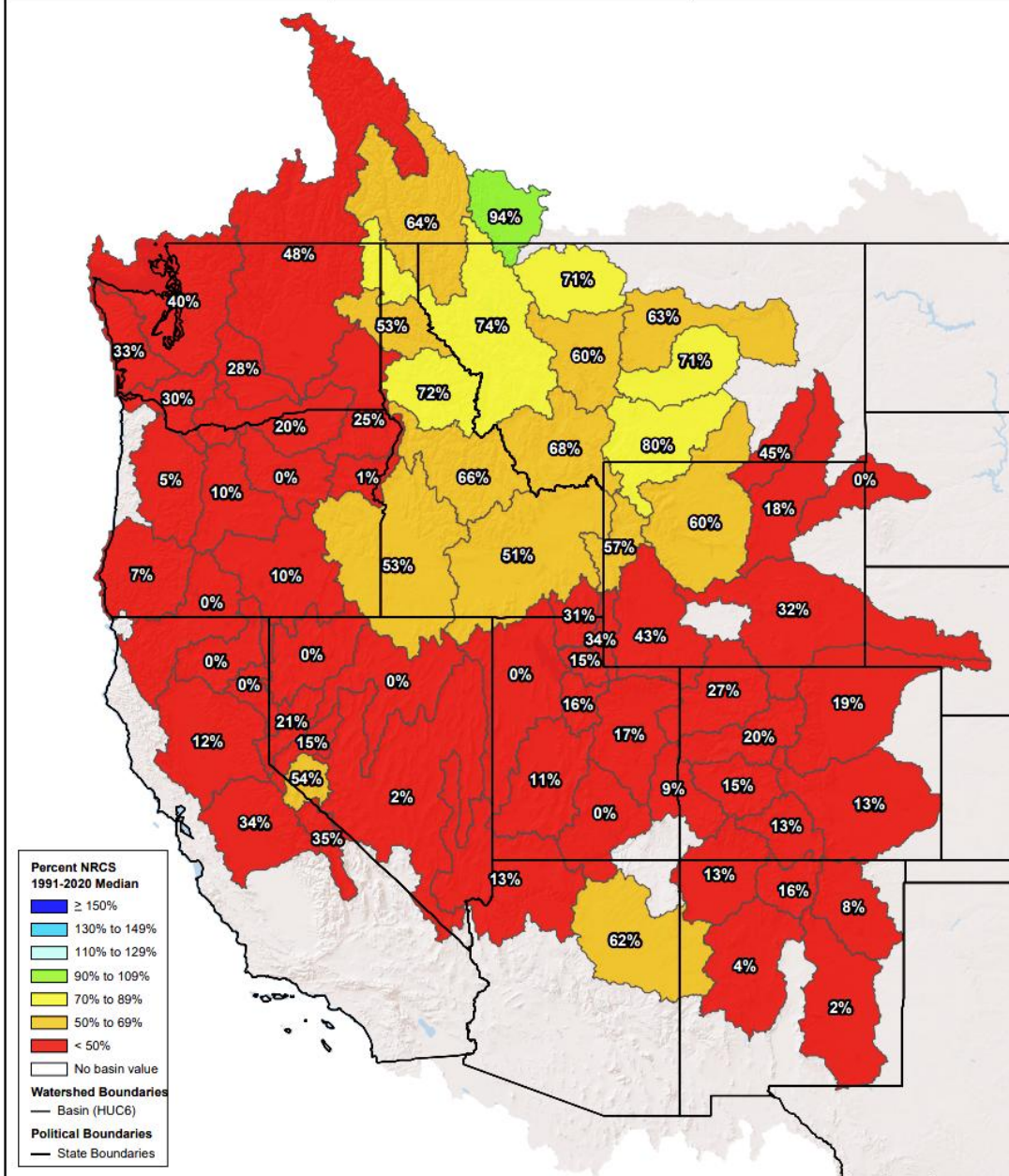
That decision was made after forecasts indicated that Lake Powell, already down to 24% capacity, could receive its worst natural inflows this spring due to poor snowpack runoff.

Nevada could see a longer, more dangerous and more expensive wildfire season following the state's warmest winter on record.

Snow Water Equivalent

Westwide SNOTEL
Percent NRCS 1991-2020 Median

May 3, 2026, end of day



Western Water Risks 2026



Current Reservoir Storage as of May 3, 2026 Major Reclamation Reservoirs

California has one of the highest rates of wildfire-driven deforestation in the world, and the trend has accelerated over the past three decades, according to a study from the University of California, Davis.

- <https://www.frontiersin.org/journals/forests-and-global-change/articles/10.3389/ffgc.2026.1764379/full>

It found that deforestation in California's conifer-dominated forests increased exponentially over the study period, taking place primarily on USDA Forest Service and private lands.

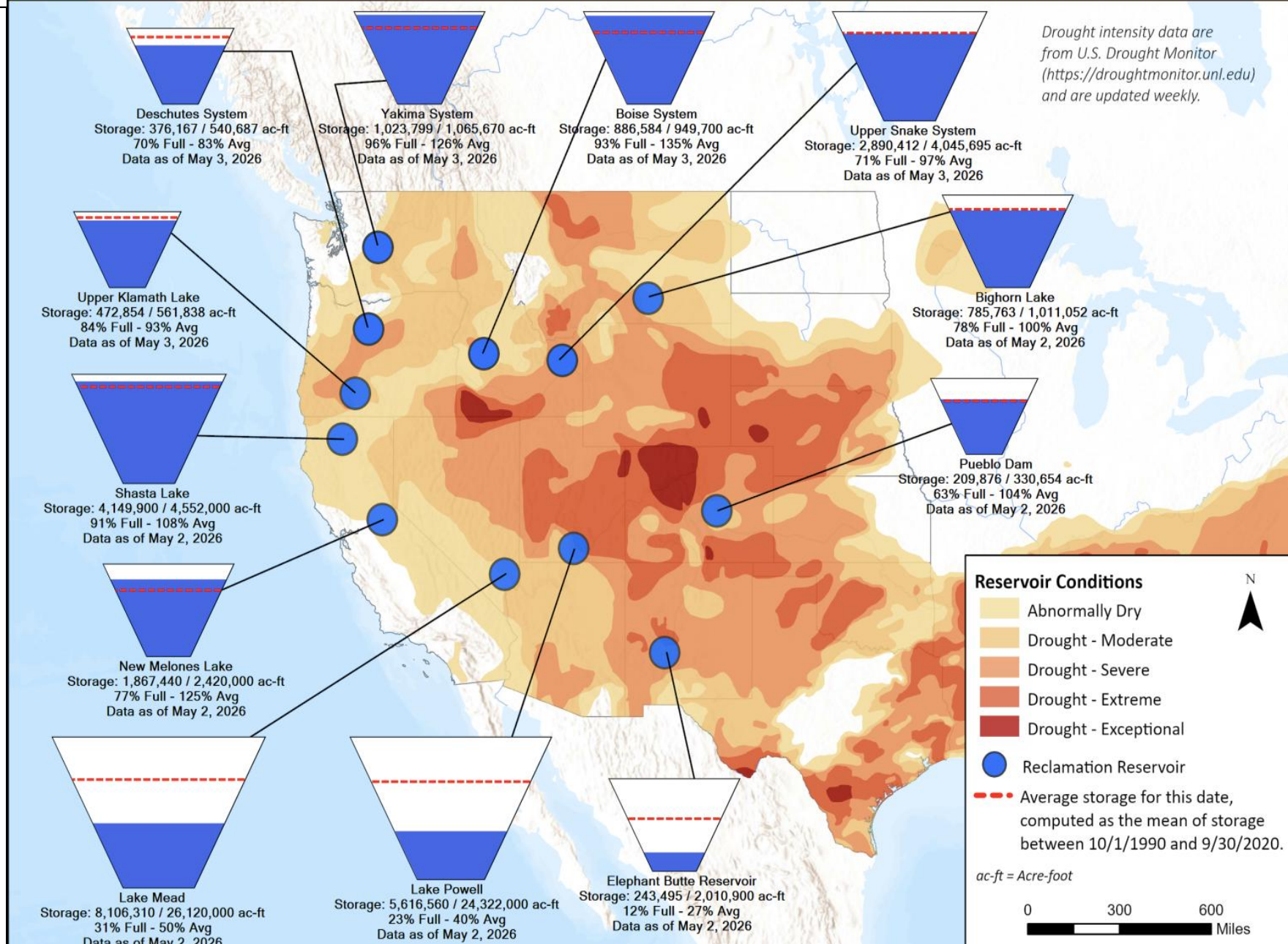
Reforestation needs were minimal in the early 1990s, rose sharply in the early 2000s and surged after 2020.

- During that time, California lost between 6% and 11% of its conifer forests.
- Multiple big-fire years caused deforestation rates to rise to between 0.25% and 0.47% per year between 2001 and 2023.
- That is substantially higher than the global average of 0.15% per year.

The team found that on Forest Service lands only about 8% of high-priority areas and less than 3% of acute-priority areas were reforested during the entire study period.

- Between 2016 and 2023, only about 1% of deforested Forest Service lands were replanted. In contrast, on private industrial timberlands, more than 90% of severely burned lands were replanted.

Scientists combined remotely sensed fire severity data with a tool called POSCRPT (Postfire Spatial Conifer Regeneration Prediction Tool)



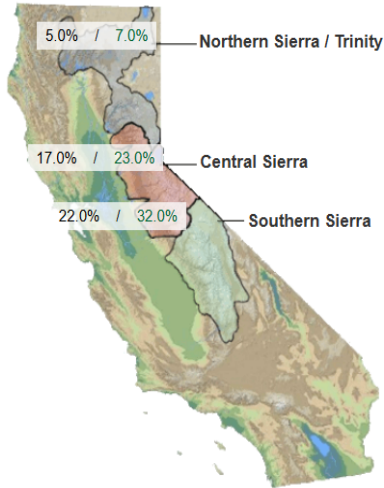
Colorado River Drought Situation

Most recent suggested plan from the Lower Basins: The lower basin states' plan would save 3.2m acre-feet of water with the help of voluntary cutbacks through 2028.

- The plan also envisions saving an additional 700,000 acre-feet of water through conservation measures and infrastructure improvement, along with the creation of a conservation pool to ensure that the federal government meets its trust obligations to tribes in [Arizona](#).
- Wyoming Commissioner Brandon Gebhardt reported that 13,000 acres of agricultural land in the South Piney drainage on the eastern slopes of the Wyoming Range had been cut off from water, adding that even some of the state's oldest and most senior water rights — some dating to 1898 — will likely be impacted.
- The Ute Mountain Ute Tribe reported its sacred springs going dry, affecting ceremonies, and the tribal farm will have to operate with just 14% of its normal water supply. The Jicarilla Apache Nation said it received just 25% to 35% of its contracted water allocation.

Lake Powell's inflow forecast sits at just 2.78 million acre-feet, only 29% of the historical average and among the lowest ever recorded.

Data For: 04-May-2026
% Apr 1 Avg. / % Normal for this Date



NORTH	
Data For: 04-May-2026	
Number of Stations Reporting	30
Average snow water equivalent	1.5"
Percent of April 1 Average	5%
Percent of normal for this date	7%

CENTRAL	
Data For: 04-May-2026	
Number of Stations Reporting	54
Average snow water equivalent	4.7"
Percent of April 1 Average	17%
Percent of normal for this date	23%

SOUTH	
Data For: 04-May-2026	
Number of Stations Reporting	25
Average snow water equivalent	5.2"
Percent of April 1 Average	22%
Percent of normal for this date	32%

STATEWIDE SUMMARY	
Data For: 04-May-2026	
Number of Stations Reporting	109
Average snow water equivalent	3.9"
Percent of April 1 Average	15%
Percent of normal for this date	21%

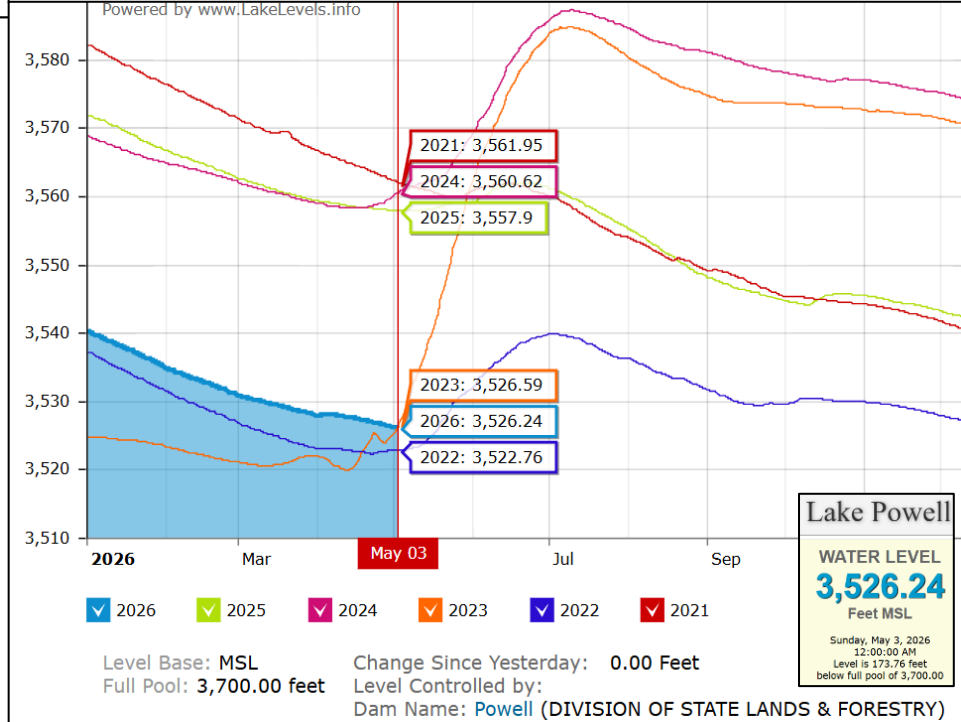
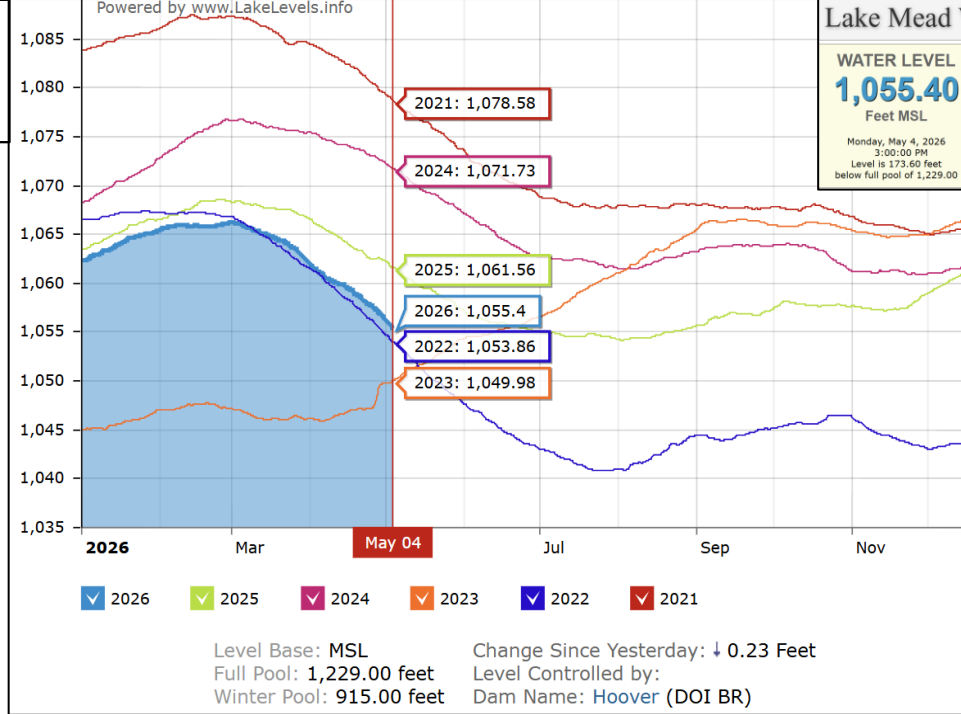
Change Date: 04-May-2026

Long-term drought has reduced Colorado River system storage to roughly 36% of its total designed capacity (USBR).

The Hoover Dam could see its electricity generation drop by as much as 40% as early as this fall as the DOI emergency drought plan cuts water releases from Lake Powell to the minimum legally allowed.

The decision to protect Glen Canyon Dam's ability to produce power, will directly reduce Hoover Dam's generating capacity by approximately 830 megawatts (0.83 gigawatts), removing roughly 1.32 terawatt hours of annual energy from the regional grid.

Lake Powell could fall below the minimum power pool level of 3,490 feet by August of this year.



Nevada: Between 1980-2024, nearly half (43.2%) of Nevada's 27 \$1 billion natural events were wildfires, with the frequency increasing since the 2000s and the driving mechanism shifting more towards lightning-caused fires.

Utah - Reservoir storage averages 72% full, which is slightly higher than normal for this time of year but down from 82% recorded last year. Statewide stream flow runoff is anticipated to be around 50% of normal.

- The Great Salt Lake has already reached what's expected to be the height of its yearly cycle after the state's warmest winter on record.

Wyoming – As of January, the proposed West Fork Dam, above the Little Snake River Valley, aspiring to hold 8,000-acre feet continues to push for a land swap agreement to increase their basin-wide water rights.

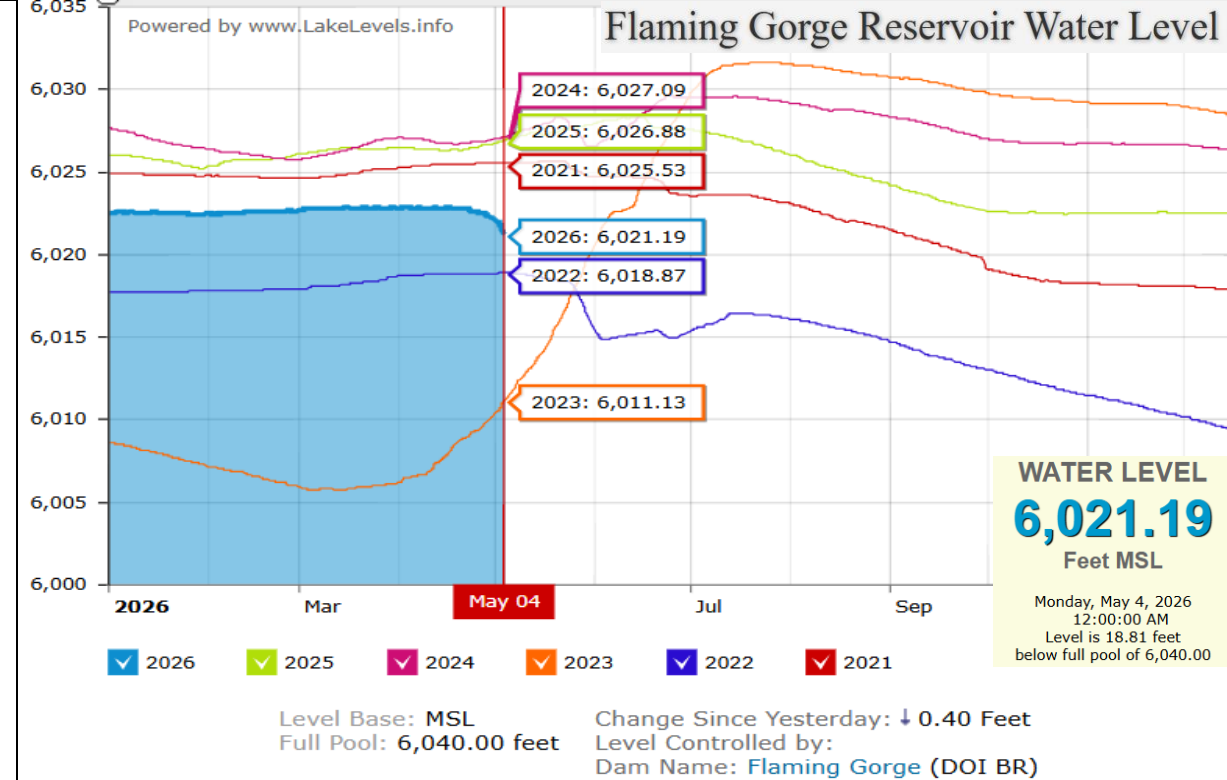
- The proposed reservoir would release stored water into the Little Snake River, which flows back and forth across the Colorado border before leaving Wyoming for good, flowing into the Yampa, Green and Colorado rivers, but would not be included in the Colorado River Agreement rules.
- The dam and reservoir would allow Wyoming to use more water from the Colorado River Basin.

Phoenix, AZ - If the city loses access to 25% of its Colorado River share, it will need to tap into its backup supply to make ends meet.

If it loses 50%, it would be forced to empty its underground storage. Only by using up essentially all its groundwater would Phoenix be able to survive more than 10 years if 75% of its share were cut. Cave Creek to be first impacted.

- While the city is developing three new wastewater reclamation facilities, only one has been approved and these will take time to build and establish.
- Military munitions manufactured in Tucson are mentioned in the water allocation impact conversations occurring across the CO River Basin.

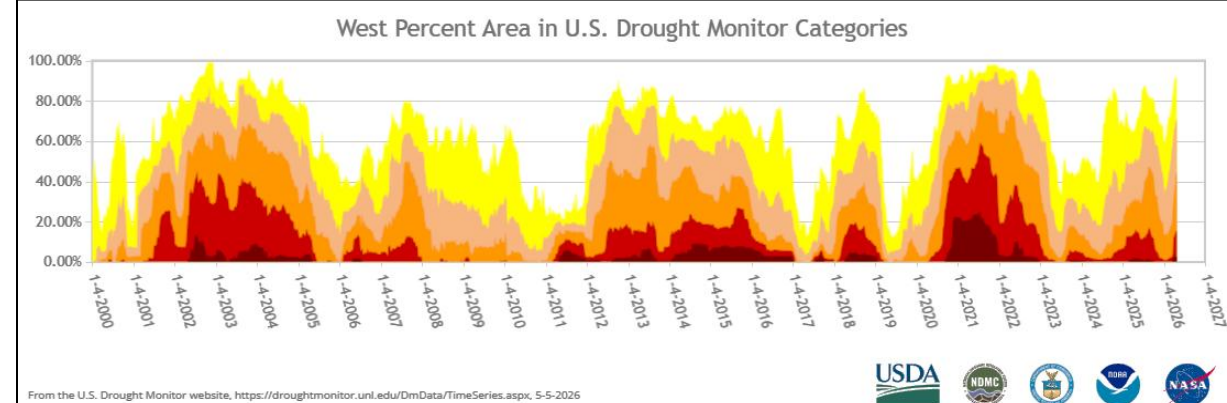
Latest Strategy – Lower Basins: save 3.2m acre-feet of water with the help of voluntary cutbacks through 2028.



Impactful Losses: The Central Arizona Project (CAP) potentially loses ~60% of its water supply as restrictions increase on the Colorado River System.

Wildfire Risk: The Southwest, Great Basin, Rockies, and California face significant threats, with 5.5 to 8 million acres projected to burn nationwide.

Lightning Risk: Is projected to be significant this summer, driven by a combination of intense heat and a likely strong El Niño event developing mid-year. Focus on NW + SW.



Weather Outlooks Spring 2026

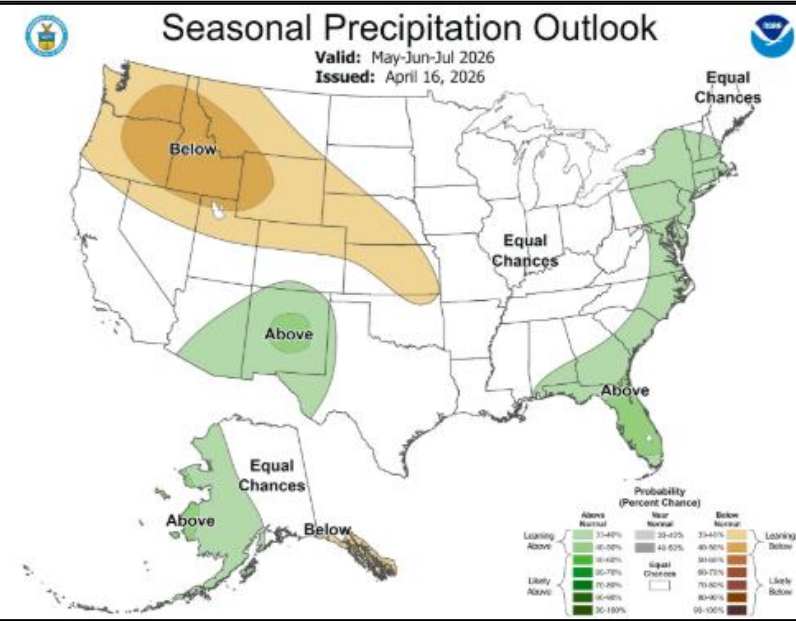
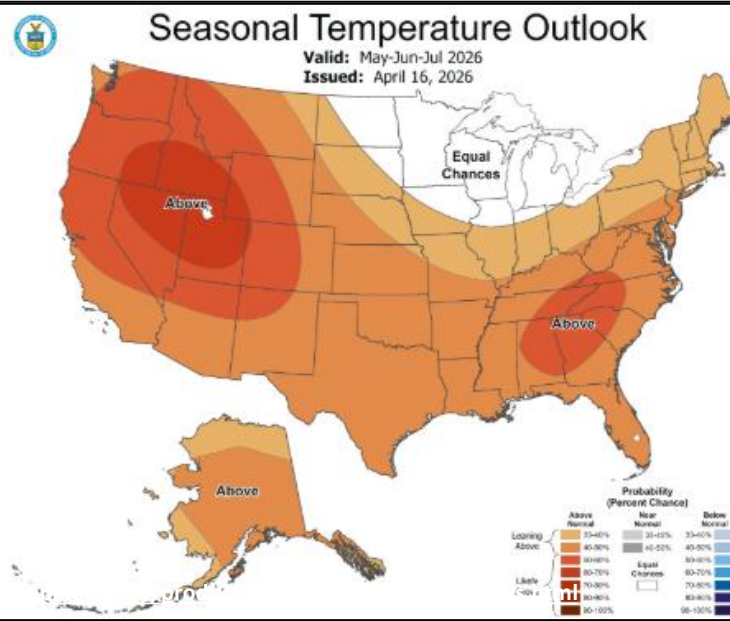
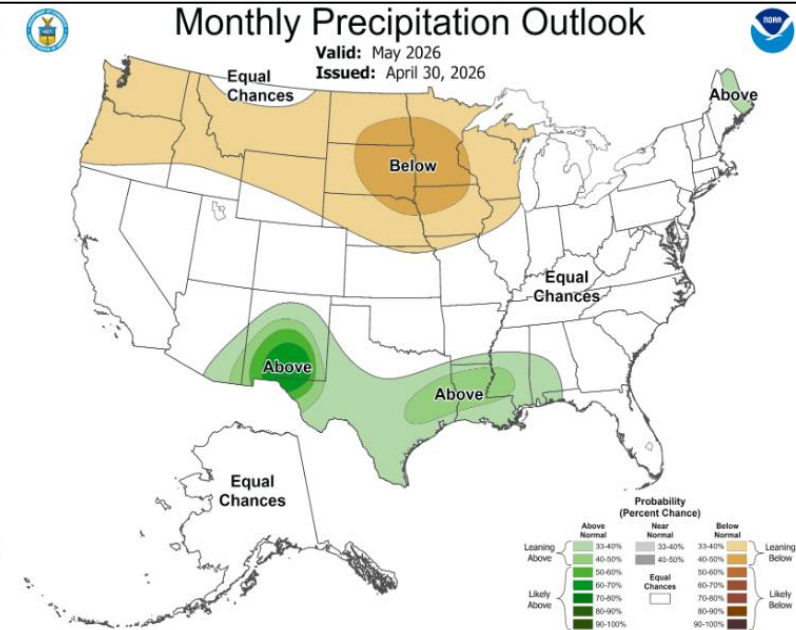
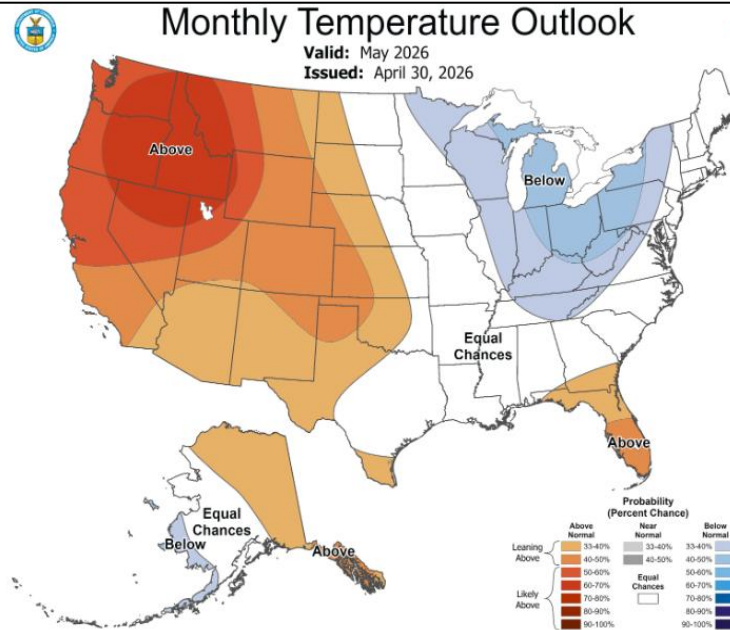
Over the next 8-14 days: The Western half of the US has an updated forecast as of the end of April to account for a more aggressive heat event over the Pacific Northwest during May and a major adjustment to the swing of colder air over the Great Lakes along with a significant precipitation change towards drought.

The heavier precipitation expectation is focused along the East coast, the Texas border, and New Mexico.

Current Fire Activity: over 24,220 fires have caused 1.847 million acres to burn placing 2026 in the top 2 most active years in the last decade, but number 1 for fire incidents.

- The only year with more acres burned than the current year is 2017 where 1.956 million acres burned.
- Florida continues to set a new pace for the most active large wildfires with New Mexico now at 7,200 acres at second place (about 1/3 the acres burning in Florida currently).
- 95% of Colorado is expected to face drought conditions in June and July with the state investing over \$165 million in forest and wildfire resiliency.

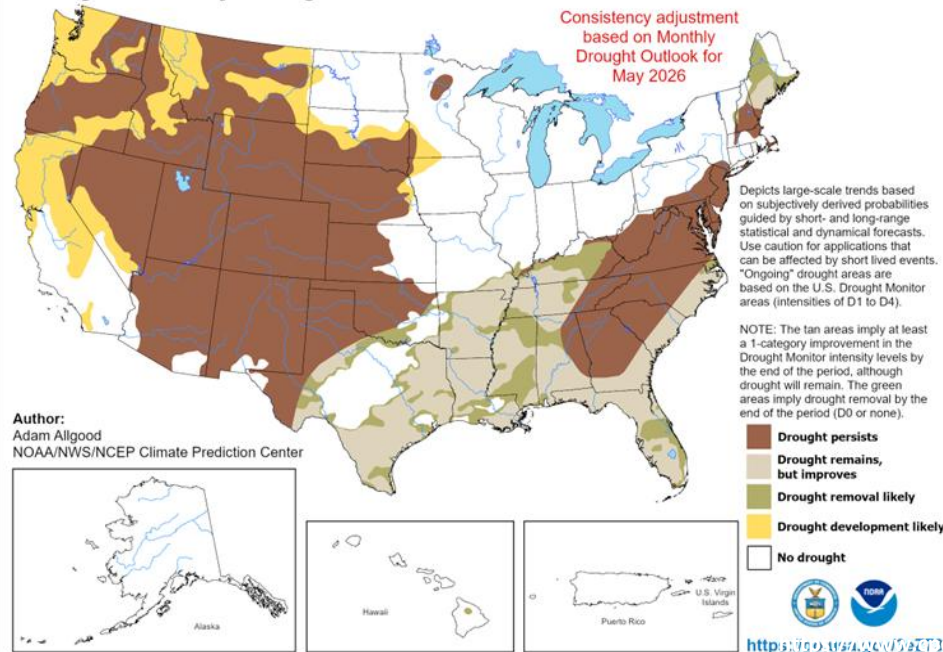
Updated wildfire forecasts highlight the Western US more than recent months anticipated as winter runoff exceeded anticipation



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for May 1 - July 31, 2026
Released April 30, 2026



Lightning Increases – Heat and Drought Vegetation Risk

There has been less snowpack and higher temperatures than nearly much any winter on record according to climatologists.

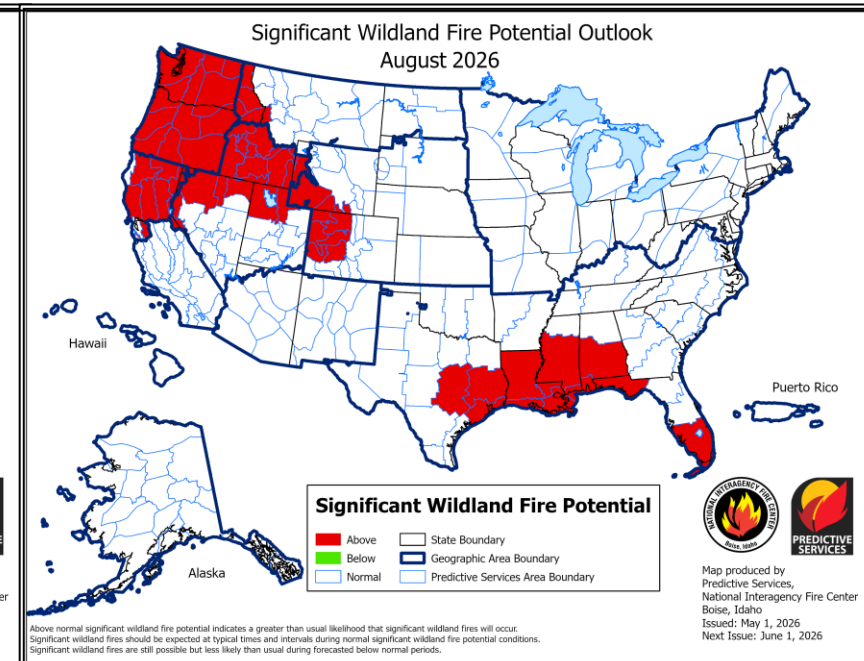
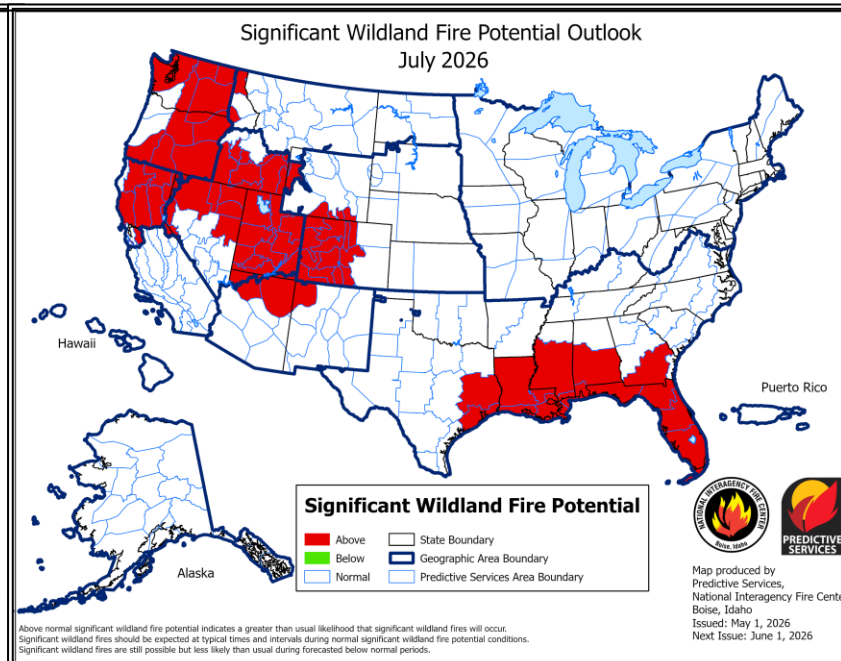
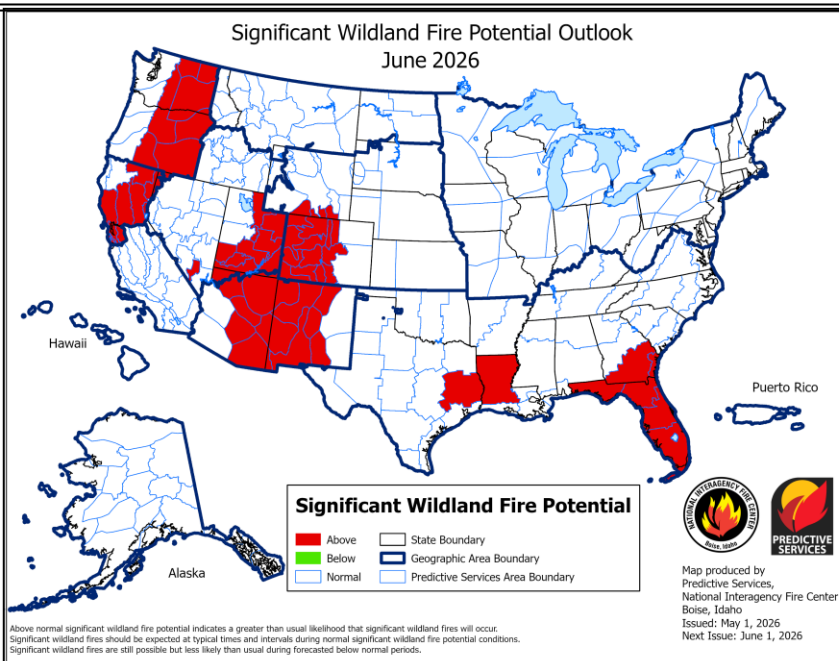
- Albuquerque, for example, recorded its earliest ever 90-degree reading on March 21, more than six weeks sooner than its previous earliest date, in 1947. The daily average of 73.1 degrees Las Vegas recorded in March would have broken the city's April record.

Vaisala Xweather reported about 250 million lightning strikes occurred in 2025, a 20% increase from 2024 and an eight-year high leading into 2026.

- The most active day in 2025 was April 5, when 157 severe storms, including 21 tornadoes in the Southeast, produced more than three million lightning events.

As of March 2026, severe weather patterns are bringing dangerous, high-frequency lightning strikes, with 21 fatalities already reported which in on average with annual totals.

- Northern California experienced a record-breaking, one-day surge of 18,833 lightning strikes during a 24-hour period ending on July 26, 2025, according to the National Interagency Fire Center.
- The summer of 2025 (June 1–Aug 31) saw an unusual frequency with 79,698 total strikes, marking the third-highest number in the state since 2016. On Aug. 26 alone, California recorded 12,152 “cloud-to-ground strokes,” its third-highest daily count in the past 10 years.



Lightning Trends Increasing Wildfire Risk

The Northwest can expect a widespread increase in days with cloud-to-ground lightning in the years to come, along with heightened wildfire risk, according to projections made with a unique machine-learning approach developed at Washington State University.

- A study [published](#) in the journal *Earth's Future* offers detailed projections of [lightning](#) across the Western U.S. for the mid-21st century. **The largest change in lightning is expected in parts of Idaho, Washington and Oregon, with four to 12 more days of lightning per year in some parts of the Rocky Mountains.**

Researchers also matched those lightning projections with future [wildfire](#) risk to calculate the changes in daily risk of lightning-caused fires. The trend is clear; a heightened risk of lightning-caused wildfires across 98% of Western lands susceptible to fire.

- **Lightning already accounts for more than two-thirds of the acreage burned in wildfires across the West.**

In the current project, the team used data from three key meteorological variables conducive to lightning from the summers of 1995–2022 to train the network in each grid box to make mid-century projections.

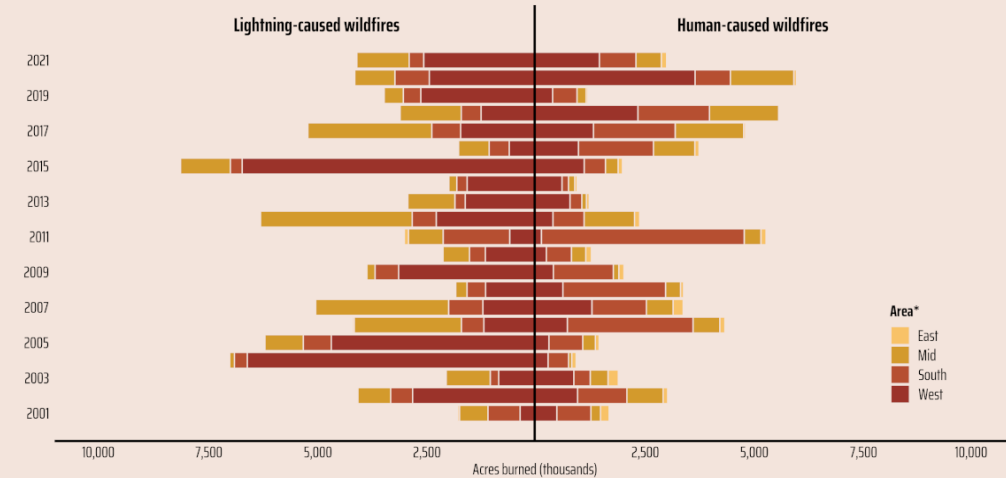
An increase in lightning days does not result in a 1-to-1 increase in fire risk, however, because fire risk depends on other variables, such as temperature, rainfall or wind and vegetation dryness.

- **Across the Rockies the number of days with a high likelihood of lightning-caused fires is expected to grow by three or more days by the mid-21st century, though the overall increase in lightning days is larger.**
- Parts of Utah and Arizona showed a reduction in lightning days—but an increase in days of potential lightning-caused fires, due to higher wildfire risk in general.

A recent study reported a 141% increase in **positive** cloud-to-ground lightning during the Indian summer monsoon from 2014 to 2023.

Wildfire Causes in the U.S. Between 2001 – 2021

Each year, millions of acres of the U.S. landscape burn in wildfires. Lightning strikes account for the majority of wildfires, but humans caused fires are far from few. Wildfire suppression is costly. According to The National Interagency Fire Center (NIFC), the average firefighting suppression cost over the last five year period is estimated at \$2,862,884,200.



What Causes Wildfires?

A spark, in the presence of fuel and oxygen, can cause a fire, which can further spread depending on various weather conditions.



Super El Niño Setup: Forecasting Future Moisture Flows

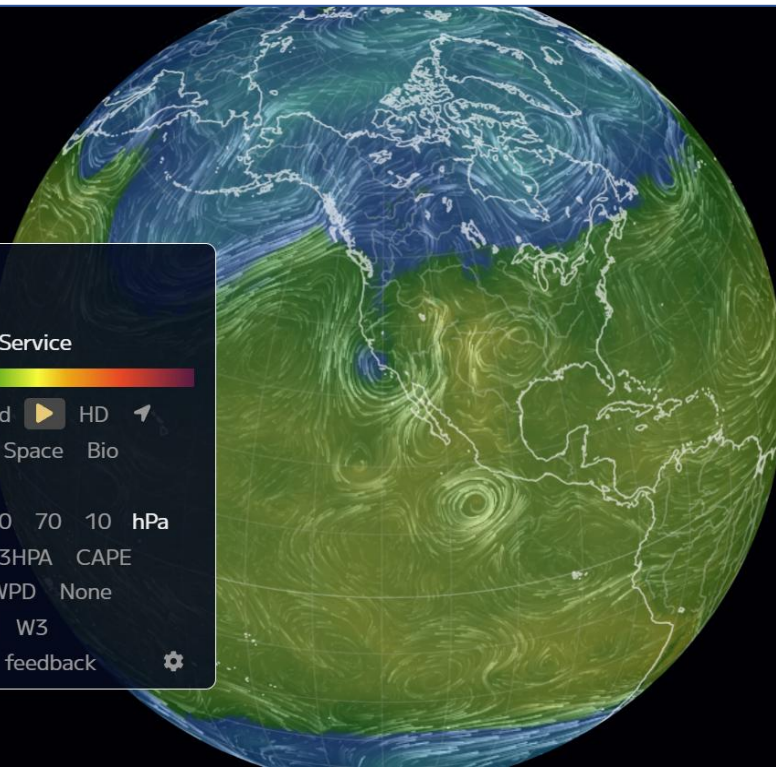
The pattern setup is like the start of June 2015, along with the colder pocket of air over the Great Lakes and the cutoff low off the southwestern coast of CONUS and the ridge over the Pacific Northwest coast. This peak of hurricane season (September) for the Atlantic is anticipated to see a Super El Niño begin into the autumn and winter window.

- A "Super El Niño" is an unofficial term for an exceptionally strong El Niño event, defined by eastern Pacific Ocean surface temperatures rising at least 2°C (3.6F) above average. These rare events occur every 10–20 years and can create warmer, drier winters and early spring conditions, driving severe, long-lasting wildfire seasons.
 - The last recognized "super El Niño" occurred in 2015–2016 with other windows in 1982-83 and 1997-98.

What did the summer of 2015 look like? The summer of 2015 was exceptionally hot and dry for the Western US, ranking as the hottest on record for Washington and Oregon, and bringing intense, prolonged heat waves, severe drought, and significant wildfires to the region.

- A major ridge of high pressure, combined with record low snowpack and "the blob" (a large area of warm ocean water), drove temperatures to historic levels throughout the Pacific Northwest and Northern Rockies.
 - Flooding during that same window also oversaturated Great Lakes and some of the New England States with the IL-IN-OH areas reaching record wettest.
- Walla Walla, Washington hit 113°F on June 28, setting Washington's all-time June temperature record and ranking as the state's third-hottest day ever recorded. The high temperatures and a lack of precipitation have caused ground conditions to degrade considerably. The forecast for winter was **also** a strong El Niño, as is the current forecast.

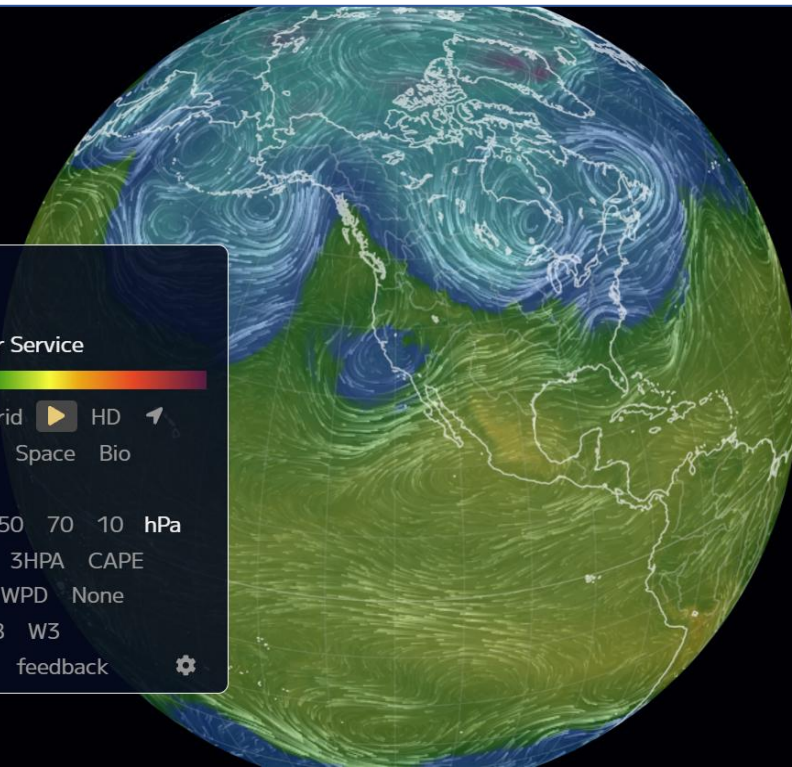
June 5th, 2015



Data | Wind + Temperature @ 700hPa
Date | 2015-06-05 02:00 Local ↔ UTC
Source | GFS / NCEP / US National Weather Service
Scale |
Control | Now Grid HD
Mode | Air Ocean Chem Particulates Space Bio
Animate | Wind **Temp** Currents Waves
Height | Sfc 1000 850 **700** 500 250 70 10 hPa
Overlay | Wind **Temp** RH Dew WBT 3HPA CAPE
TPW TCW MSLP MI UVI WPD None
Projection | A CE E **O** P S WB W3
about feedback

earth

May 4th, 2026



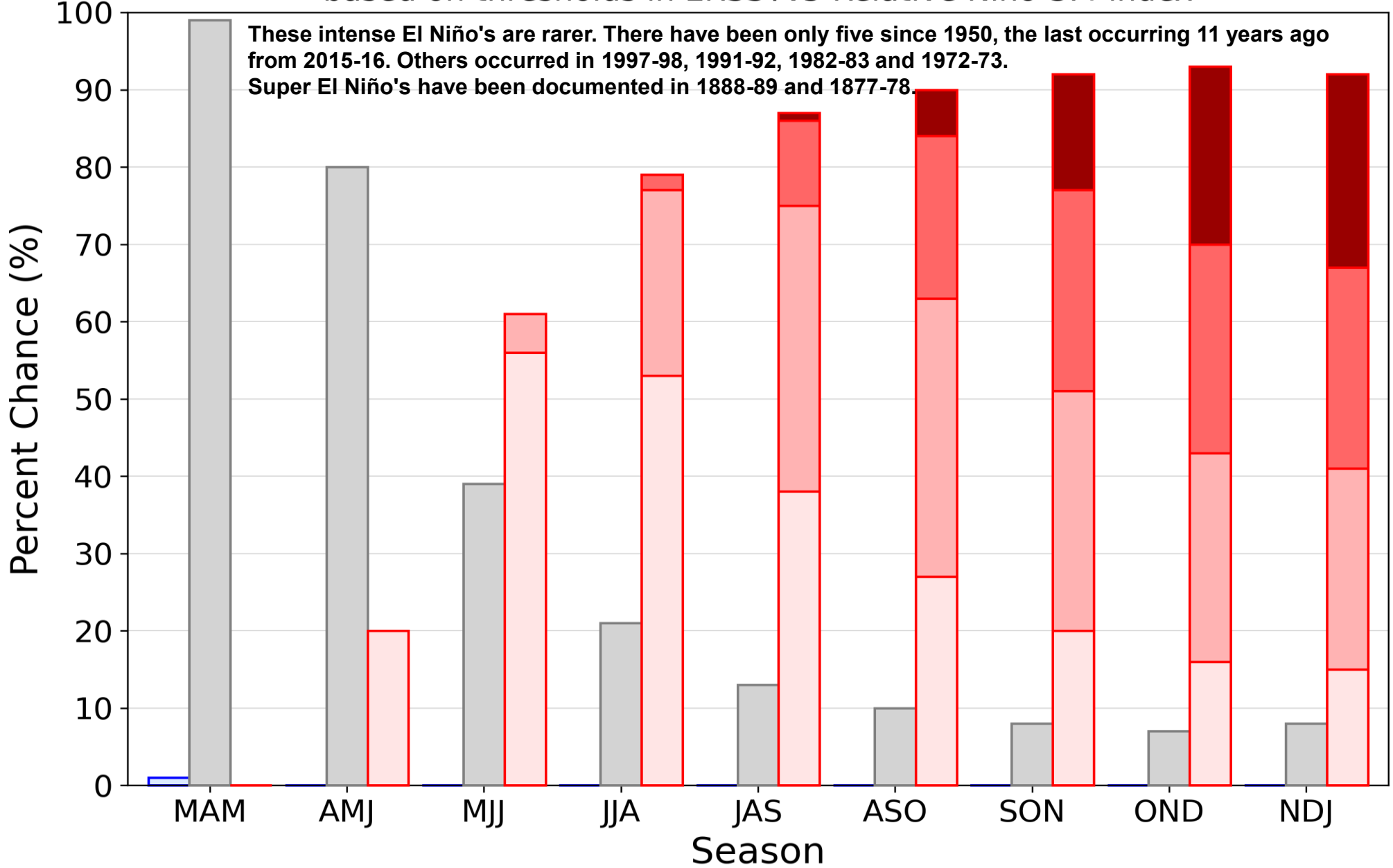
Data | Wind + Temperature @ 700hPa
Date | 2026-05-04 18:00 Local ↔ UTC
Source | GFS / NCEP / US National Weather Service
Scale |
Control | Now Grid HD
Mode | Air Ocean Chem Particulates Space Bio
Animate | Wind **Temp** Currents Waves
Height | Sfc 1000 850 **700** 500 250 70 10 hPa
Overlay | Wind **Temp** RH Dew WBT 3HPA CAPE
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NOAA CPC ENSO Strength Probabilities (issued April 2026)

based on thresholds in ERSSTv5 Relative Niño-3.4 index

These intense El Niño's are rarer. There have been only five since 1950, the last occurring 11 years ago from 2015-16. Others occurred in 1997-98, 1991-92, 1982-83 and 1972-73. Super El Niño's have been documented in 1888-89 and 1877-78.



- Very Strong El Niño
index $\geq 2.0^{\circ}\text{C}$
- Strong El Niño
 $1.5^{\circ}\text{C} \leq \text{index} < 2.0^{\circ}\text{C}$
- Moderate El Niño
 $1.0^{\circ}\text{C} \leq \text{index} < 1.5^{\circ}\text{C}$
- Weak El Niño
 $0.5^{\circ}\text{C} \leq \text{index} < 1.0^{\circ}\text{C}$
- Neutral
 $-0.5^{\circ}\text{C} < \text{index} < 0.5^{\circ}\text{C}$
- Weak La Niña
 $-0.5^{\circ}\text{C} \geq \text{index} > -1.0^{\circ}\text{C}$
- Moderate La Niña
 $-1.0^{\circ}\text{C} \geq \text{index} > -1.5^{\circ}\text{C}$
- Strong La Niña
 $-1.5^{\circ}\text{C} \geq \text{index} > -2.0^{\circ}\text{C}$
- Very Strong La Niña
index $\leq -2.0^{\circ}\text{C}$



Stronger events do not always mean bigger weather and climate impacts. Stronger events can make it *more likely* that certain impacts could occur.

GFS – Large Temperature Boundaries Over CONUS – 50/50 Precipitation Events

Annotating the expanding warmth over the West in key river basins through the next 12 days whereas the precipitation stays on the leeward side of the Rocky Mountains, continuing the threat of drying and wildfire risk growing across delicate ecosystems where snowmelt occurred far too earlier.

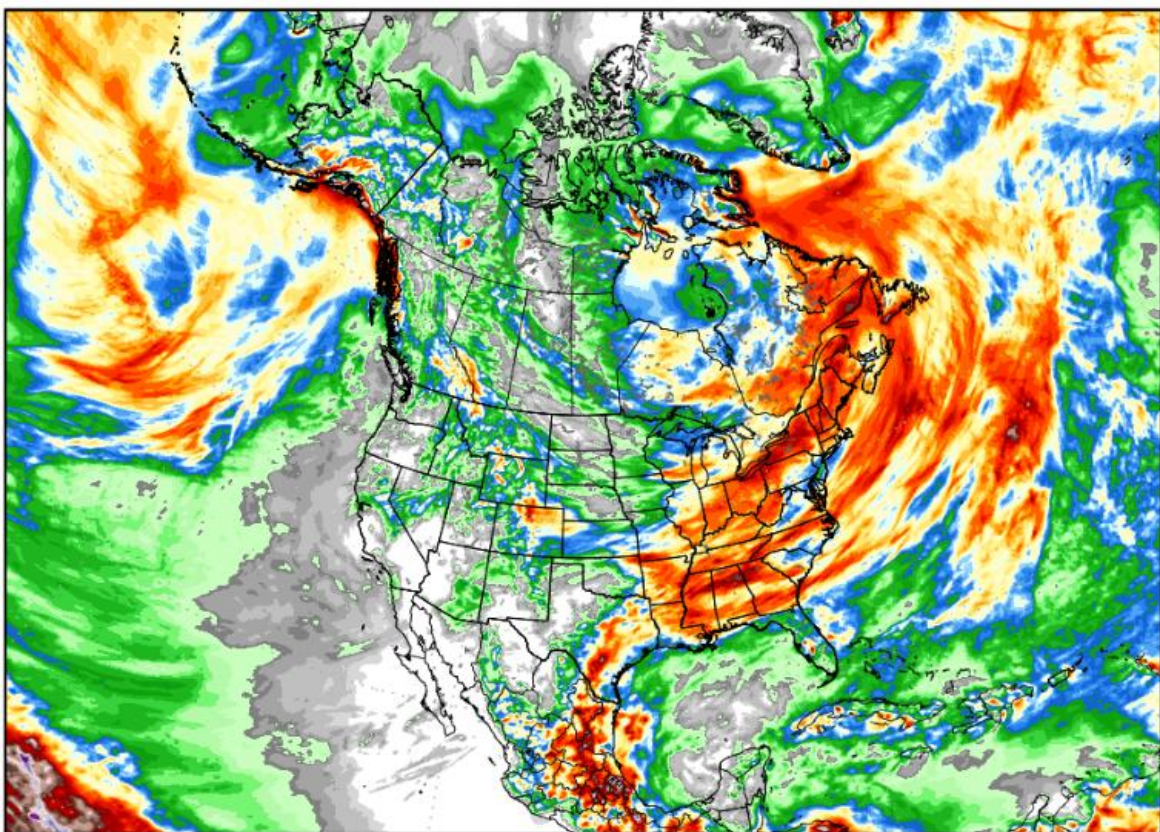
- **Severe weather outbreaks are anticipated to begin midmonth over the Northern Rocky Mountains due to the amplified heat and instability.**
- Summer is forecast to mimic Winter with the comparables of 'have and have-not' for beneficial precipitation and relief from upper-level wind mixing. The west is likely to dome.

April 2026 Energy Outlook from EIA – expect total demand to increase by 2.3% in the summer months this year compared with 2025 and by 3.7% in 2027. Expect the residential sector to consume the most electricity in 2026 and 2027 even as commercial demand continues to grow at a faster rate.

- The summer of 2026, EIA expects solar power will generate 17% more electricity than it did last summer. In 2025, solar generation in the summer months surpassed wind generation for the first time, and that trend continues in the forecast. https://www.eia.gov/outlooks/steo/report/elec_coal_renew.php

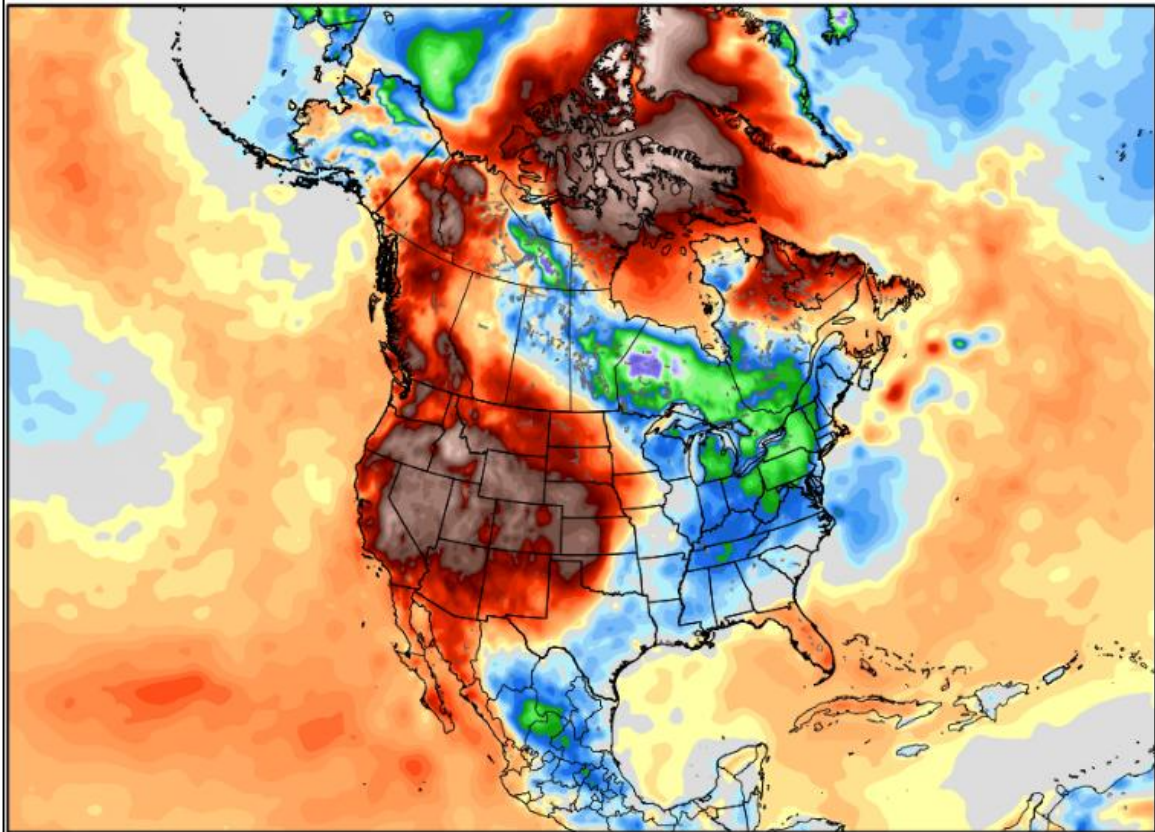
NOAA GFSv16 | Total Precipitation [inch]
Init: 18Z04MAY2026 -- [270] hr --> Valid Sat 00Z16MAY2026

MIN|MAX: 0.00 | 26.10 INCH
AREA AVG: 1.05 INCH



NOAA GFSv16 | 7-DAY AVG 2-METER TEMPERATURE ANOMALY [°F] --> Days 4.25 to 11.25
Init: 18Z04MAY2026 -- [270] hr --> Valid Sat 00Z16MAY2026

MIN|MAX -15.34° | 25.42°F
AREA AVG: 1.48°F



CONUS Summer 2026 Risk Forecasts

Latest oceanic analysis and forecast data confirms that the El Niño is developing faster and stronger than initially projected, with subsurface anomalies now suggesting this event is on a direct trajectory toward Super El Niño status by the second half of the year.

- A hot summer is predicted across most of the contiguous US in 2026, with almost no areas expected to have temperatures below the historical average for the season.

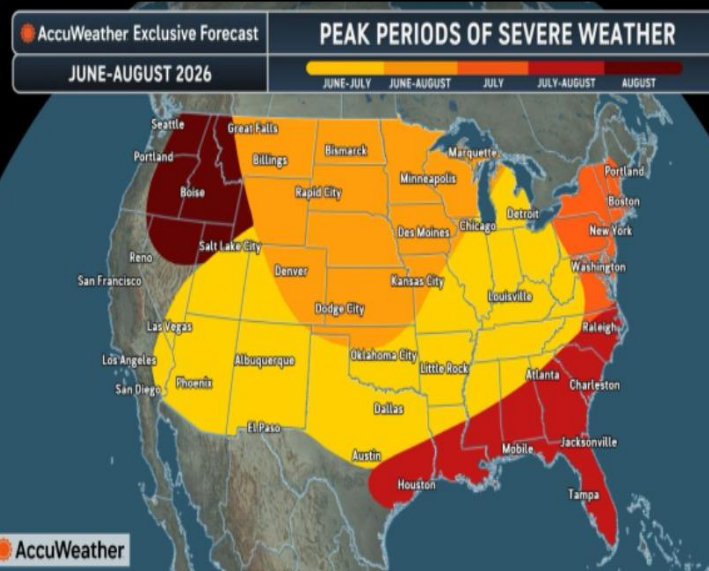
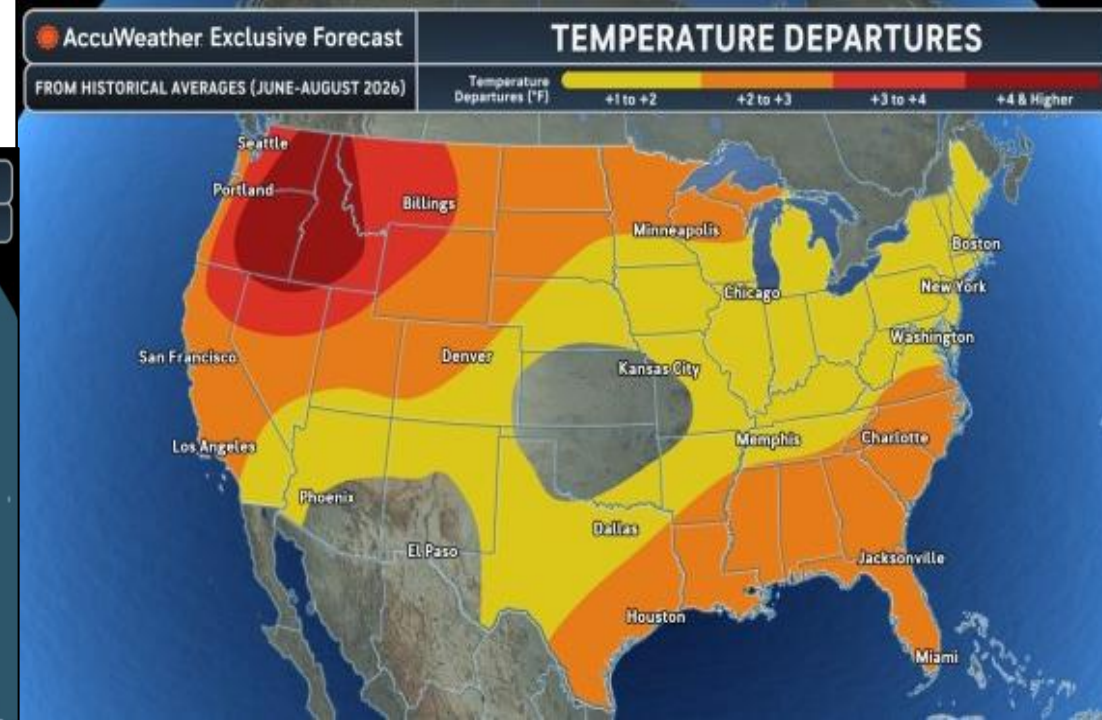
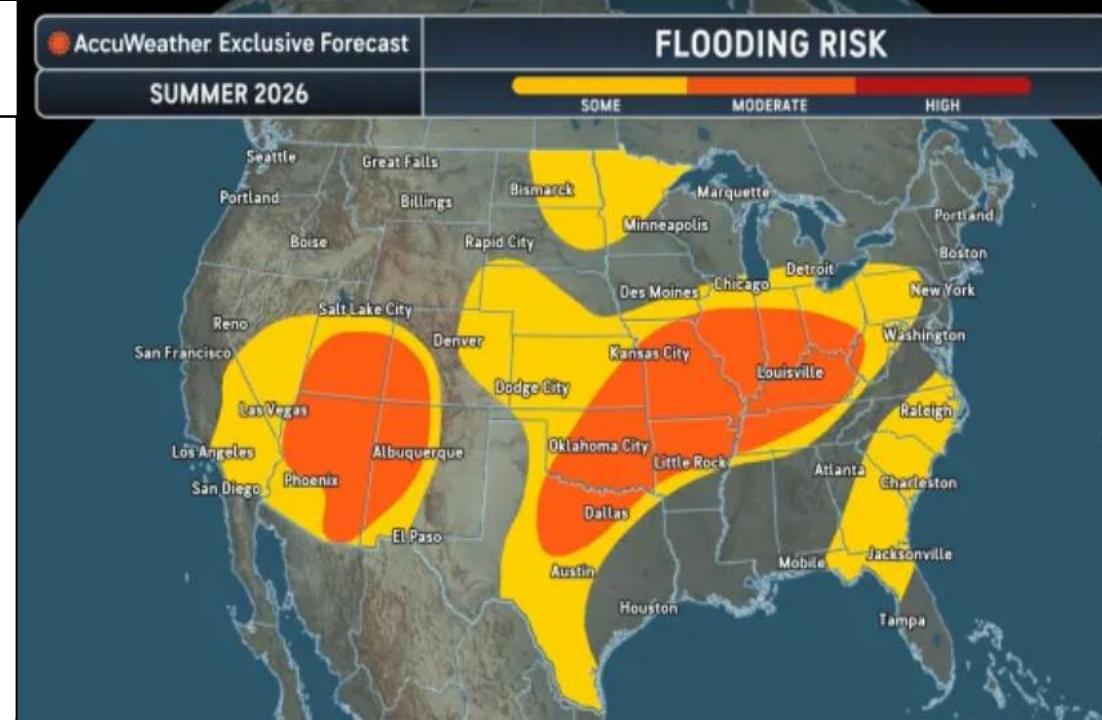
The NOAA forecast: Summer 2026 keeps below average temperatures for the Pacific Northwest and the Central US while maintaining above average rainfall for the Arizona-New Mexico border.

- Temperatures are forecast to be the most above average nationally in the Western US to Texas.

AccuWeather Forecast: Summer 2026 is expected to bring a volatile mix of heat, severe thunderstorms and flooding to the United States, with El Niño developing and flexing its influence on the weather pattern.

- The widespread heat will drive up energy demand and could lead to higher electric bills.
- The worst of the heat will focus across parts of California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming, fueling a [widespread fire threat](#).

EIA Forecast: total electricity demand to increase by 1.2% in 2026 and reach 4,108 billion kilowatt-hours (BkWh). In 2027, EIA expects demand will increase by 3.3% and reach 4,244 BkWh.



New USGS Tool for Drought

NEW TOOL: The [USGS River DroughtCast](#) uses machine learning models trained on data from thousands of USGS stream gages, some with more than 100 years of continuous records, to forecast when rivers and streams will drop to abnormally low levels. River DroughtCast currently provides forecasts for more than 3,000 USGS stream gage locations with at least 40 years of data.

- Streamflow drought occurs when rivers and streams stay below normal levels for extended periods, distinct from the more familiar meteorological droughts characterized by lack of rainfall.
- While lack of rain typically comes first, factors like soil moisture, snowpack, and groundwater all influence how dry conditions translate into reduced river flows.
 - This makes streamflow drought particularly difficult to predict but critically important for water resource planning.

A user of the tool can choose any length of forecast between one and 13 weeks, with the tool being most reliable in the first four to six weeks.

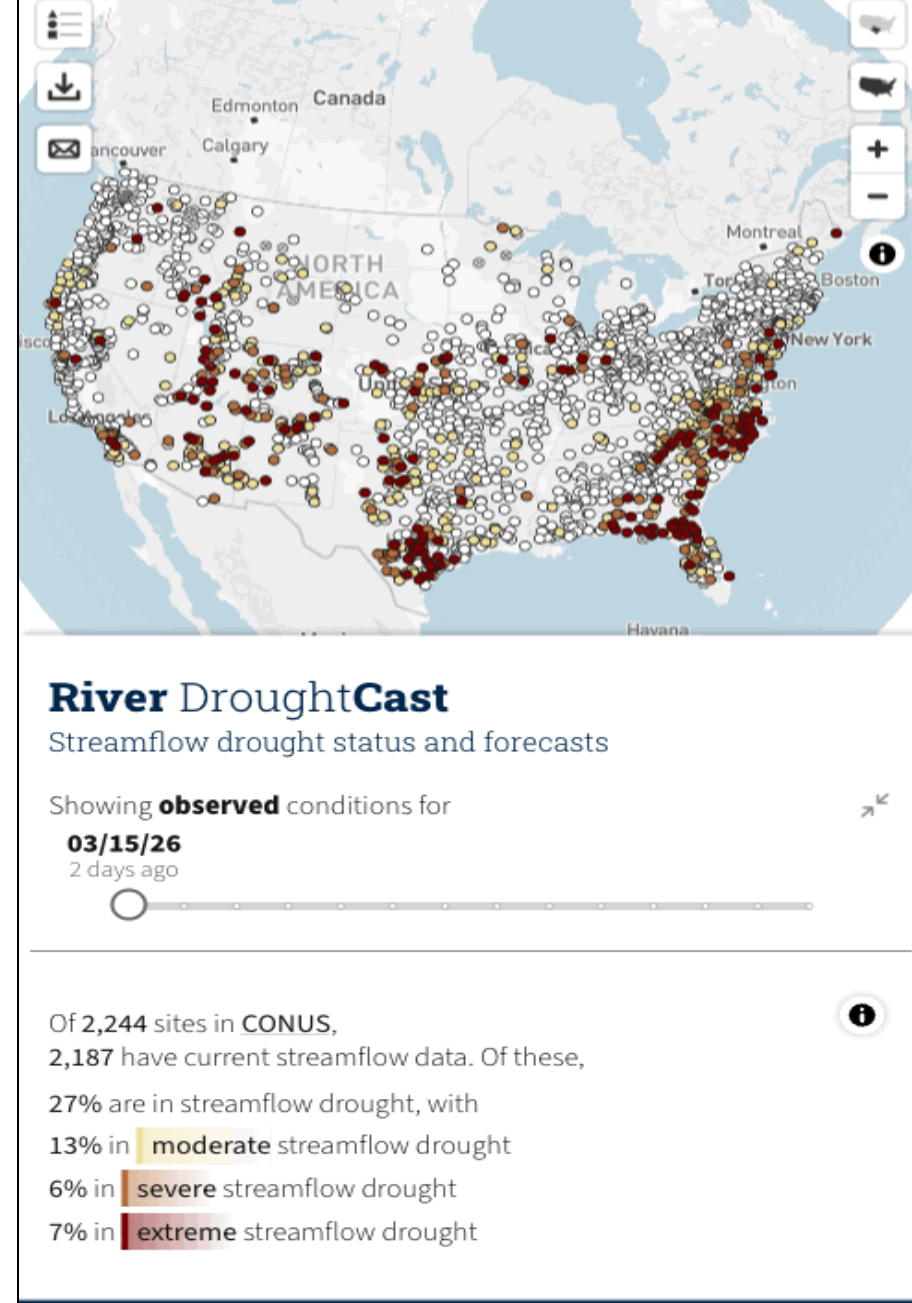
- Regardless of the length of the forecast, the first week of severe or extreme drought conditions are correctly predicted approximately 75% of the time.
- This reliability drops to approximately 55% of the time by week 13. All forecasts include confidence estimates so users can understand the reliability of predictions during different timeframes.

Use Cases: River DroughtCast assists with a gap between short-term weather forecasts and seasonal water supply outlooks.

Farmers relying on surface water irrigation may adjust planting schedules and crop selections.

Municipal water managers may implement conservation measures. Recreation operators may prepare for impacts to fishing, boating and other water-dependent activities.

River DroughtCast Mobile Video Capture - March 17, 2026



This animated gif shows an example series of drought status symbols at stream gages for the lower 48 United States by week beginning with current conditions on March 17, 2026, and then for predictions of drought through June 15, 2026.

Energy Systems: What Works

Every region faces the meteorological threat differently based off the topology of the area, the development rates, and the general weather pattern the area typically experiences.

Extreme Heat vs Extreme Cold

Addressing extreme heat and cold across transmission lines, power poles, and substations reduces outage risk, equipment failure, and repair costs during increasingly severe weather events.

Strengthening these assets improves grid reliability, protects critical services, and increases national resilience by keeping energy systems stable under stress.

-White reflective paint can help substations in extreme heat by reducing solar heat gain on equipment and enclosures, which may lower overheating risk and improve reliability (calcium carbonate and barium sulfate).

-Microgrids improve resilience in extreme cold and heat by maintaining localized power when the main grid is stressed or disrupted.

-3d-printed flanged bases for transformer poles could speed replacement, reduce custom fabrication delays, and improve resilience after damage or failure with reduced costs in warehousing/producing replacement parts.

-Burying power lines can improve resilience in extreme heat and cold by shielding them from temperature-driven damage, ice, wind, and falling debris.

Dark vs Bright

-White solar panels run at a lower temperature than traditional black solar panels, extending their lifespan and reducing local heat-sinks.

Flood vs Quake

-Pipelines benefit from leak technology and temperature-tolerant materials, insulation, expansion controls, and continuous monitoring for stress and leaks.

Wind vs Storm

-Improve wind turbine resilience to lightning and icing with blade protection, grounding systems, de-icing technology, and condition monitoring.

rank	solution	speed	cost	impact	best use
1	thermal monitoring and heat-trigger thresholds	fast	low	high	find hot spots early
2	infrared inspections and connector upgrades	fast	low	high	wiring, joints, substations
3	reflective coatings and white painting	fast	low	medium	poles, enclosures, roofs
4	shade structures and cool roofs	medium	medium	high	substations, yards, generators
5	ventilation and forced air cooling upgrades	medium	medium	high	substations, generator enclosures
6	equipment spacing and yard layout changes	medium	medium	medium	substations with trapped heat
7	higher temperature conductors and reconductoring	medium	high	high	overloaded transmission corridors
8	dynamic line rating	medium	medium	high	lines with variable thermal limits
9	higher temperature insulation and transformer cooling upgrades	medium	high	high	transformers under sustained heat
10	pole material or geometry redesign	slow	high	medium	repeated heat degradation zones
11	covered conductors and corridor redesign	slow	high	medium	distribution in exposed areas
12	selective undergrounding	slow	very high	high	highest-risk, highest-value circuits

best practice	rationale	example
connect forecast to decisions	Buyers pay for action, not raw alerts	"if heat index exceeds threshold, shift crews and pre-stage cooling assets"
use one shared operating picture	Reduces siloed responses across ops, supply chain, and comms	Single weekly brief with weather, supplier risk, and map view
define decision thresholds early	Speeds action during fast-moving events	Trigger alternate supplier review at 72-hour disruption probability
publish short horizon playbooks	Teams need usable guidance within hours	72-hour hospital storm readiness checklist
show uncertainty clearly	Prevents false precision and builds trust	Use confidence bands, scenario ranges, and threshold language
pair intelligence with experiments	Proves value and improves recommendations	Test inventory buffer changes before peak storm season
capture member feedback fast	Field signals improve forecast relevance	Weekly call to log what worked and what failed
make outputs executive ready	Adoption rises when materials need no translation	One-page brief for leadership with actions, risks, and owners
design for compliance traceability	Buyers need defensible methods and documentation	Versioned assumptions, sources, and action logs
tailor visuals to nontechnical users	Clear maps improve stakeholder understanding	Story map showing facility exposure and likely service impacts

CONTACT

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• Email: Sunny@unlimitedweather.com

IEA Electricity 2026: Analysis and Forecast to 2030

• https://iea.blob.core.windows.net/assets/b73798cb-e452-42b9-9d8a-07542de7a041/Electricity_2026.pdf

HELPFUL STARTS

• NOAA Repository:

<https://www.ncei.noaa.gov/cdo-web/>

• Frontal Boundaries:

<https://aviationweather.gov/gfa/#progchart>

• Infographics:

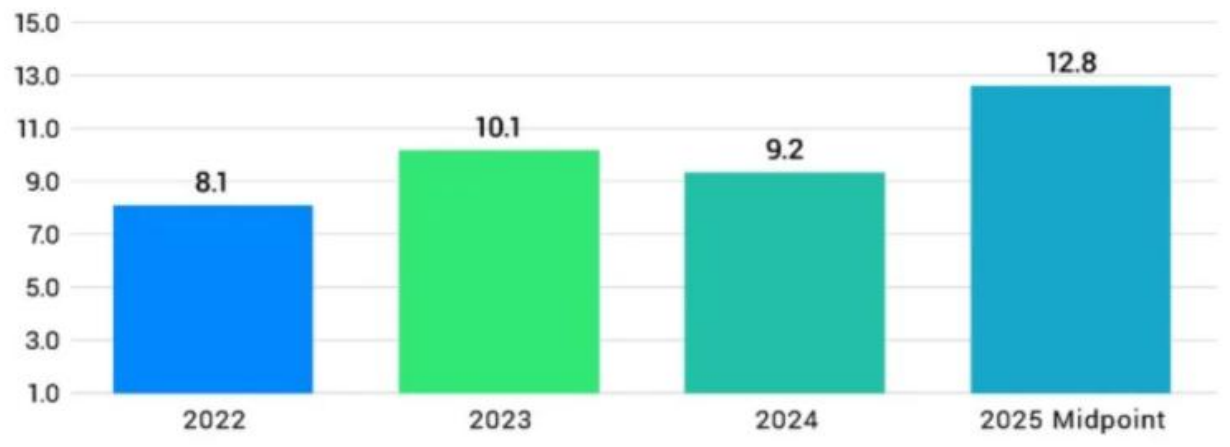
<https://www.climatecentral.org/>

• World Meteorological Organization:

<https://wmo.int/topics/extreme-weather>

Average Length of Longest Outage (Hours)

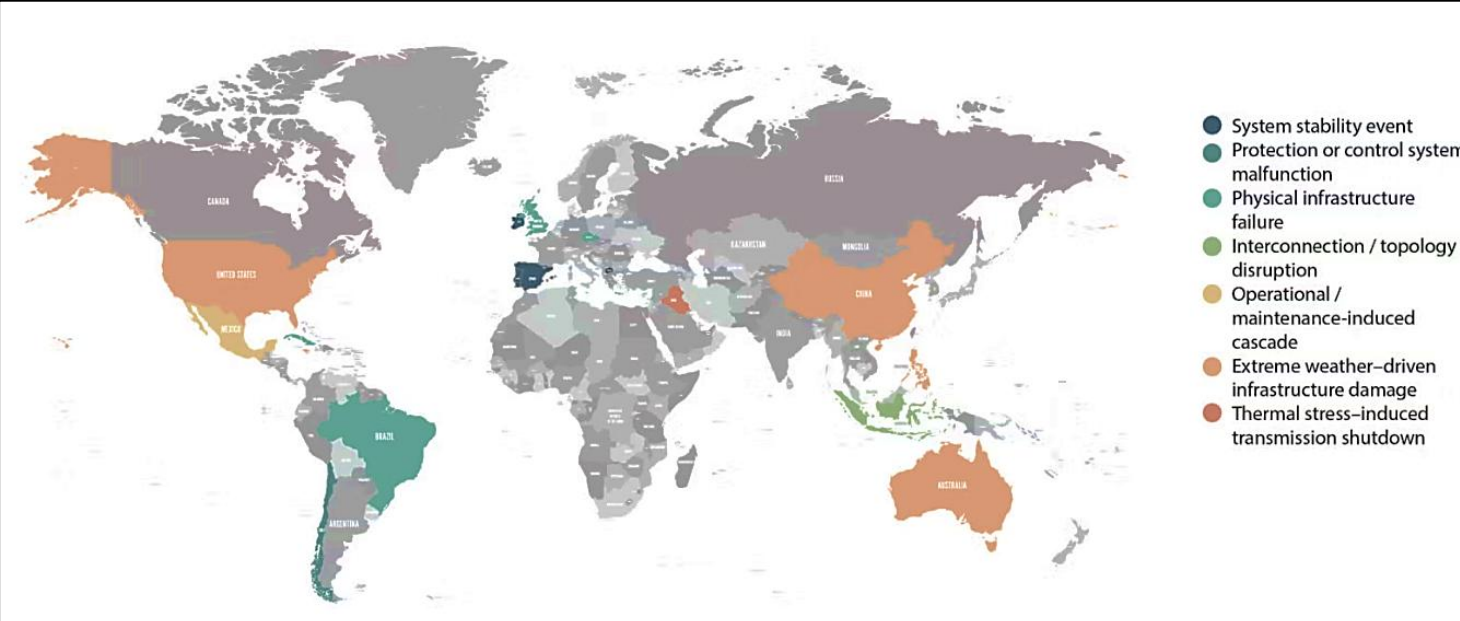
J.D. POWER



Source: J.D. Power 2025 U.S. Electric Utility Residential Customer Satisfaction Study™

JD Power's U.S. Electric Utility Residential Customer Satisfaction Study shows power outages getting longer over time.

Permission granted by JD Power



A breakdown of 15 major blackout events in 2025 by cause and geography. Sources: POWER; IEA, Electricity 2026 (February 2026).