

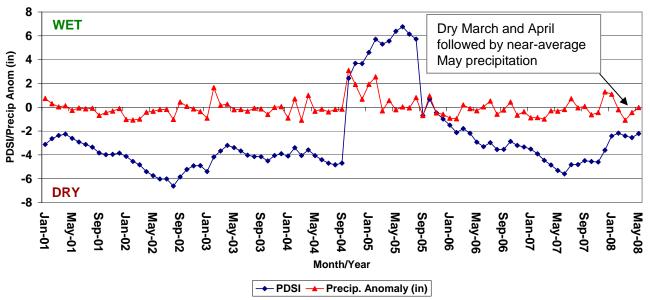
Northwest Arizona Climate Summary Summer 2008



June 25, 2008 – The cool and unsettled weather of winter 2007-08 continued into the spring season bringing gusty winds and spotty precipitation. A persistent trough of low pressure across the western U.S. guided storm systems deep into the Southwest throughout the spring. Most of these storms had limited moisture to work with and produced little precipitation, but helped keep temperatures in check during the early spring. Temperatures were near-average in April, but no precipitation was recorded at any station across northwest Arizona during the month. The unsettled weather pattern continued into May with several strong storm systems moving across the region even late into the month. Remote Automated Weather Stations (RAWS; http://raws.dri.edu) along the Arizona strip observed precipitation amounts ranging generally from 0.25 to 0.75 inches during May. A particularly strong and wet storm crossed Arizona between May 22nd and 25th. Rainlog volunteers (http://www.rainlog.org) in the Kingman area reported hail and over 0.5" of precipitation with this storm. June brought near-average temperatures and more typical dry conditions to the region. Most RAWS stations along the Arizona strip observed less than 0.15 inches of precipitation between June 1st and June 24th.

Summer (July-August-September) precipitation forecasts issued by the NOAA Climate Prediction Center indicate an equal chance of above, below or average precipitation. This 'equal chances' forecast is due to conflicting climate signals typically used to forecast summer monsoon activity across Arizona. La Niña events, like the 2007-08 event that is still underway but weakening in the Pacific Ocean, can enhance the moisture flow across Arizona necessary to support summer thunderstorm activity. This past winter brought unusually cool and wet conditions to much of the western U.S. supporting record snowpack levels in parts of the Rocky Mountains. High snowpack levels in the spring can weaken the monsoon circulation pattern and delay the onset of the monsoon season. These conflicting signals have limited forecast confidence leading to an 'equal chances' forecast. Temperature forecasts, on the other hand, continue to indicate a confident increased chance of above-average temperatures through the summer season. (More information on forecasts can be found at http://www.cpc.noaa.gov).

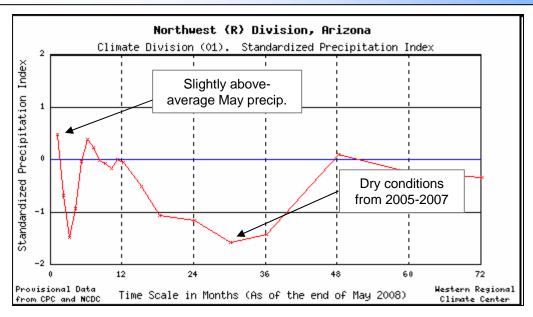
Northwest Arizona Palmer Drought Severity Index and Precip. Anomaly: Jan. 2001 - May 2008



Above-average precipitation in December and January gave way to dry conditions through April. Precipitation was below-average in the February through April period. PDSI values dipped slightly, but average precipitation in May helped limit the drying trend. PDSI values are still near -2 indicating the presence of short-term drought conditions.



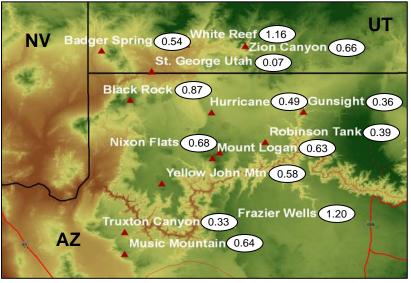
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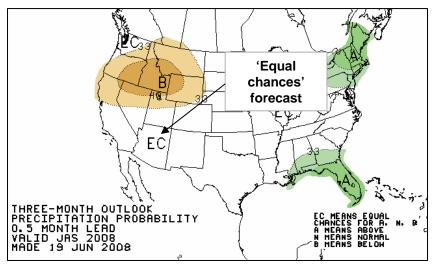
The SPI represents precipitation levels over different time-scales in standard deviation units. The time scales represent individual comparison periods (for example, 12-month time-scale represents total precip over last 12 months compared to historical record of same period). The SPI value near -2 at 30 months represents belowaverage total precipitation for the past two-years. The positive value (SPI~0.5) at 1-month indicates slightly above-average precipitation in May for Northwest Arizona.

Observations from Remote Automated Weather Sites (RAWS) across northwest Arizona and southwest Utah for the April-June 2008 period indicate that precipitation amounts were highly variable during the spring, but generally below 1 inch. Frazier Wells observed the most precipitation at 1.2 inches with most of it falling in May (0.82"). St. George observed the least amount of precipitation at 0.07" with 0.06" of it falling in May as well. Most of the precipitation during this period came from several unusual late spring storms in May. None of the stations recorded any measurable precipitation in April. (Find more information and data at http://raws.dri.edu).

The July-August-September seasonal precipitation forecast from the Climate Prediction Center indicates an 'equal-chances' precipitation forecast for the desert Southwest. This means that there is an equal chance of above, below or average total precipitation falling during the forecast period. An 'EC' forecast is made when there is no strong forecast signal evident to use. Summer precipitation forecasts have been hampered by conflicting signals between the waning La Niña event (stronger monsoon) and significant snowpack across the western U.S. (weaker monsoon). See more forecast information at http://www.cpc.noaa.gov.



Total precipitation from Apr 1st-Jun 24th from RAWS sites. Precipitation listed in inches at each location. Data from http://raws.dri.edu



http://www.cpc.noaa.gov/products/predictions/long_range/lead01/off01_prcp.gif