

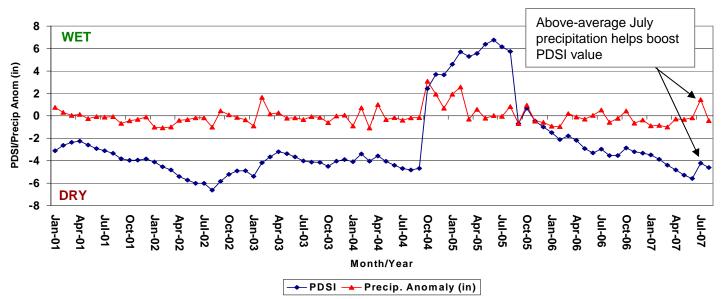
Northwest Arizona Climate Summary Fall 2007



September 24, 2007 – The summer season brought its typical mixed bag of wet and dry weather to northwest Arizona. Observations from across the region indicate that precipitation was highly variable with some locations along the Grand Canyon receiving over 11 inches of rainfall between July 1st and September 23rd. Conditions were much drier north and south of the Canyon. Reports from Remote Automated Weather Stations (RAWS) in southwestern Utah near St. George logged precipitation amounts of less than 3 inches for the same period. Precipitation amounts were generally below-average from Kingman to the southern end of Mojave County. Volunteer observations logged on Rainlog (http://www.rainlog.org) show the gradient in summer precipitation amounts from north to south across the county. Many Rainloggers in the Kingman area reported 1.5 to 3 inches of July-September precipitation while reports through the southern end of the county are less than 1 inch. The Arizona State Drought Status Map continues to show the Bill Williams watershed in southern Mojave County as experiencing 'extreme' drought conditions due to persistent below-average precipitation (http://www.azwater.gov/dwr/drought/STDS.html).

Forecasts for the upcoming late fall-early winter season (November-December-January) from the Climate Prediction Center indicate that the southwest U.S. will see an increased chance of below-average precipitation and continue to see an increased chance of above-average temperatures. The continuation of an above-average temperature forecast is due to the expectation that trends in increasing temperatures will continue through the fall and winter seasons. The increased chance of below-average precipitation is due to a developing La Niña event in the equatorial Pacific Ocean. La Niña events (pattern of below-average sea surface temperatures persisting off in the eastern Pacific) typically disrupt the winter jet stream pattern across Arizona, pushing winter storms north of the state. This typically suppresses winter storm activity over the Southwest bringing below-average precipitation. The current La Nina event is expected to be only weak to moderate in intensity possibly limiting its impact on Arizona. Conditions could change rapidly through the fall so stay tuned to forecast updates. (More information on forecasts can be found at http://www.cpc.noaa.gov).

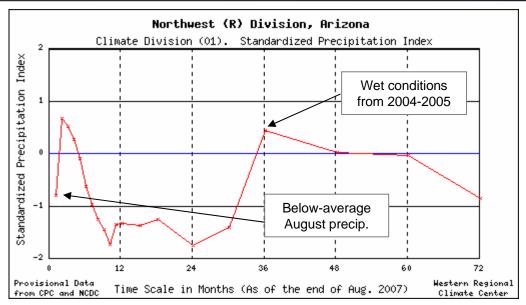
Northwest Arizona Palmer Drought Severity Index and Precip. Anomaly: Jan. 2001 - Aug 2007



Above-average July precipitation helped to boost PDSI values indicating a slight improvement in short-term drought conditions. Precipitation amounts were highly variable across the region in July and it is expected that this improvement wasn't seen everywhere. Precipitation amounts fell off in August to below-average, letting the PDSI value slip slightly.



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The SPI represents precipitation levels over different time-scales in standard deviation units. The time scales represent discrete comparison periods (for example, 12-month time-scale represents total precip over last 12 months compared to historical record of same period). The 2 and 3-month lags indicate near-average precipitation in June and July. The negative value near -1 at the 1-month lag reflects below-average precipitation in over NW Arizona in August.

Rainfall observations from Remote Automated Weather Sites (RAWS) across northwest Arizona and southwest Utah for the July-September period indicate that precipitation was highly variable across the region during the summer. Robinson Tank received the least rainfall with only 2.42 inches recorded over the past 3-months. Frazier wells recorded the most at over 11 inches. Rainfall amounts were generally higher at locations along the Grand Canyon with most stations recording 9 to 11 inches of rainfall between July and September. Locations further north along the Arizona-Utah border observed much lower amounts (2 to 5 inches). More RAWS rainfall data can be found at the Western Regional Climate Center at http://raws.dri.edu.

NV

Badger Spring (4.15) White Reef (2.9)

St. George Utah (2.6)

Black Rock (5.7)

Hurricane (3.33) Gunsight (3.53)

Robinson Tank (2.42)

Mount Logan (9.04)

Nixon Flats (8.89)

Yellow John Mtn (9)

Truxton Canyon (9.19)

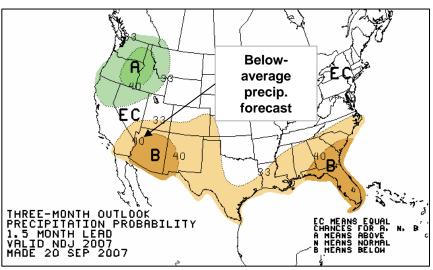
Frazier Wells (11.14)

AZ

Music Mountain (3.73)

Total Rainfall from July 1 – Sept. 23 from RAWS sites. Rainfall in inches in parentheses at each location. Data from http://raws.dri.edu

The November-December-January seasonal precipitation forecast from the Climate Prediction Center indicates an increased chance of below-average precipitation. A developing La Niña event may disrupt the winter storm track across Arizona and suppress winter precipitation amounts. Updated forecasts indicate that only a weak to moderate La Niña event is expect which may limit its overall impact on Arizona's climate this winter. Stay tuned to forecasts through the fall for updates (http://www.cpc.noaa.gov).



http://www.cpc.noaa.gov/products/predictions/long_range/lead01/off_index.html