



# Southeast Arizona Climate Summary

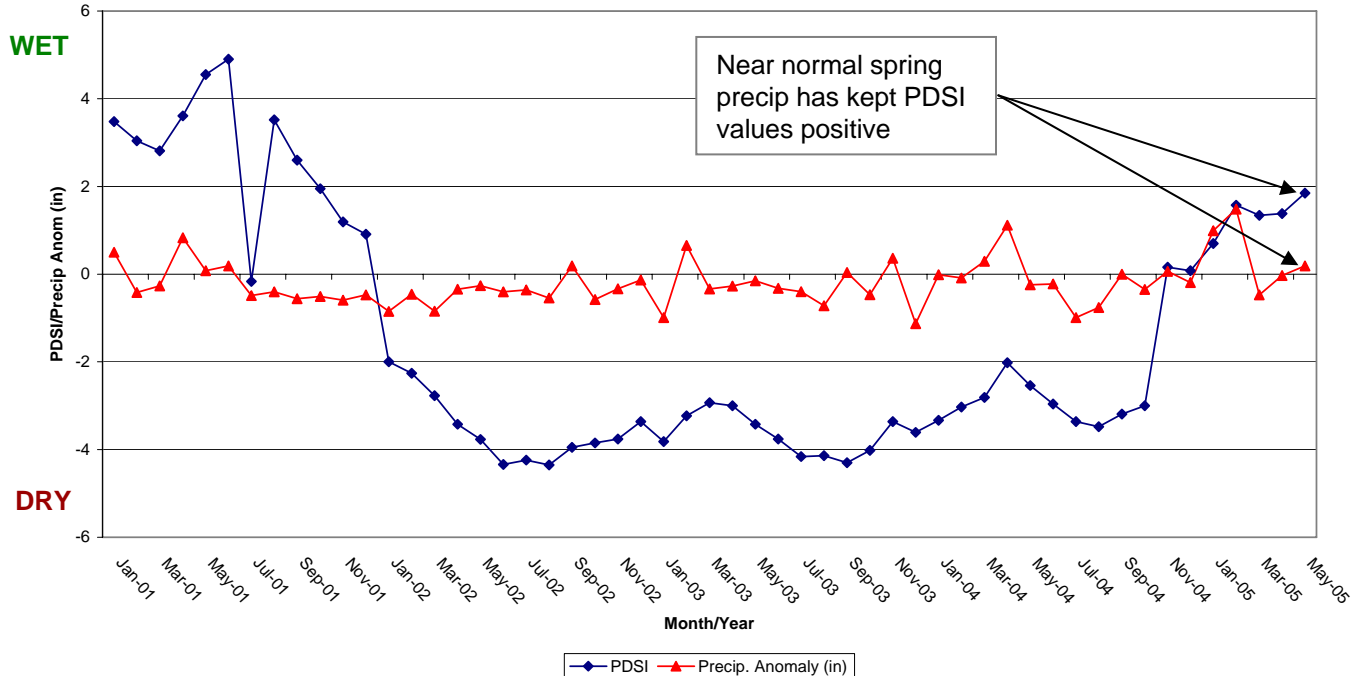
## Summer 2005



July 5, 2005 – Above normal winter precipitation and several pulses of late spring/early summer moisture have provided significant short-term drought relief across most areas of southeast Arizona. Portions of western Cochise and Santa Cruz counties had below normal precipitation over the past 6 months and did not share in much of the short-term drought improvements. Long-term precipitation deficits still linger for most of SE Arizona with some locations reporting amounts 10-15” below normal over the 10-year period since 1995. The National Drought Monitor has kept portions of southern Arizona in the ‘moderate drought’ category due to these long-term deficits (<http://http://www.drought.unl.edu/dm/monitor.html>).

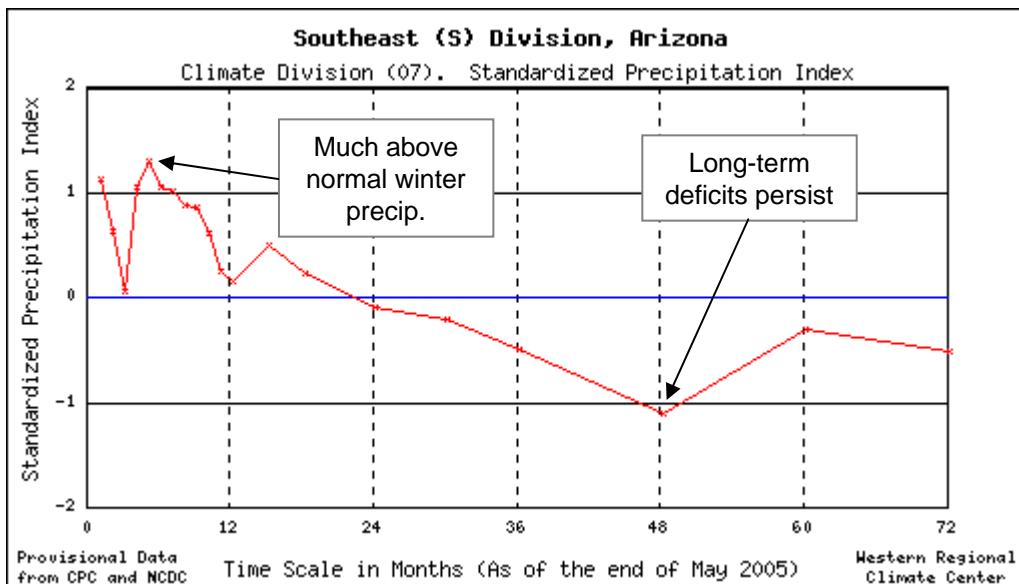
Forecasts for late summer (Aug-Sept-Oct) from the Climate Prediction Center indicate that the southwest U.S. will see above normal temperatures with an equal chance of above, below, or normal precipitation. A trend in above normal temperatures is expected to continue leading to the above normal temperature forecast. The ‘equal chances’ designation for southern Arizona in the precipitation forecast is due to the lack of a strong predictive signal. Summer forecasts are difficult due to the lack of strong relationships between sea-surface temperatures and circulation patterns across the Southwest during the summer season. Experimental forecasts for the early summer indicate that monsoon precipitation may start late and be below normal overall for the season. These forecasts rely on statistical relationships derived from past seasons and have limited skill to date, so confidence in this forecast is low. (More information at [http://www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/enso\\_advisory/](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/))

Southeast Arizona Palmer Drought Severity Index and Precip. Anomaly: Jan. 2001 - May 2005



Above normal winter precipitation and unusual late spring storms have helped to improve short-term drought conditions reflected in the positive PDSI values since January 2005. Near normal spring precipitation has held PDSI values relatively steady over the past several months.

# Southeast Arizona Climate Summary – Summer 2005



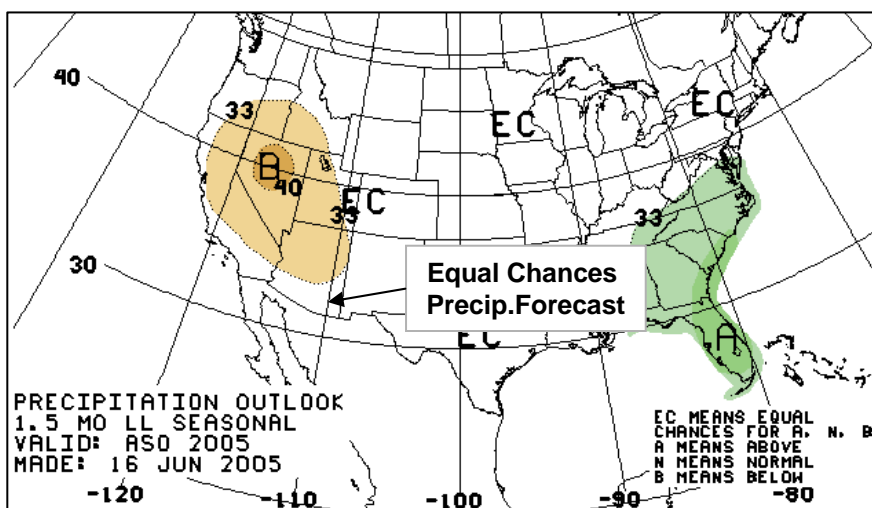
All SPI values through the 12 month window are above zero indicating normal to above normal precipitation. The above normal winter and late spring precipitation has helped boost cumulative precipitation amounts and provided some relief from short-term drought conditions. Longer-term windows (36-48 mos.) are improving, but additional above normal precipitation will be needed to satisfy long-term deficits.

Average May temperatures were several degrees above normal at most locations across SE Arizona. Local precipitation amounts were variable, but generally near normal. Unusual late May storms brought precipitation to some parts of SE Arizona. Willcox received 1.05 inches of rain in May which is over 4 times their long-term average.

Location	May 2005 Avg. Temp (F)	May Long-term Avg. Temp (F)	May 2005 Total Precip(in.)	May Long-term Avg. Precip (in)
Willcox	69.3	64.9	1.05"	0.25"
Safford	72.4	70.0	0.1"	0.18"
Chiricahua N.M.	67.1	63.8	0.49"	0.33"
Douglas	70.7	68.2	0.17"	0.29"
Tucson	77.4	74.5	0"	0.17"

(data from <http://www.wrh.noaa.gov/twc> and <http://wrcc.dri.edu>)

The August-September-October seasonal forecast from the Climate Prediction Center depicts an 'equal chances' precipitation forecast for southeast Arizona. This forecast means that the probability of above normal or below normal precipitation is no greater than the probability of receiving normal precipitation amounts for the period. This period covers the late monsoon, which is difficult to forecast based on circulation patterns and sea surface temperatures. Pacific sea surface temperature patterns, which are an important forecasting tool, have little influence on Southwestern late spring/early summer weather patterns.



From: [http://www.cpc.noaa.gov/products/predictions/long\\_range/lead02/off02\\_prpc.gif](http://www.cpc.noaa.gov/products/predictions/long_range/lead02/off02_prpc.gif)