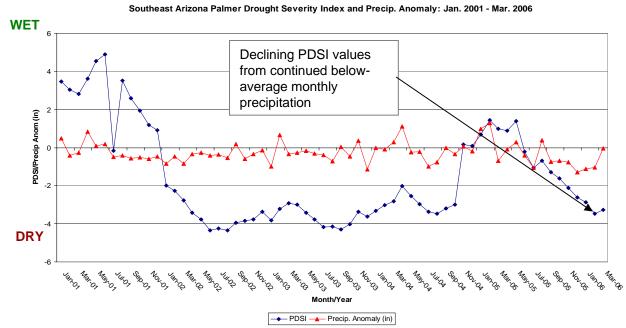


## **Southeast Arizona Climate Summary Spring 2006**



April 16, 2006 – Winter 2006 was exceptionally dry and warm for southeast Arizona with respect to the historical record. The winter period of January through March of 2006 was the 8th driest (average Jan-Mar precipitation, 0.36") and 15th warmest (average Jan-Mar temperature, 51.4 °F) for climate division 7 (southeast Arizona) compared to the 1930-2006 period of record. January and February were exceptionally dry across the entire state. Tucson typically receives close to an inch of precipitation in February, but only received a trace in 2006. The January-March winter period was very dry for most locations across southeast Arizona due to the lack of precipitation during the months of January and February. Only 26% of average precipitation fell across SE Arizona during the Jan-Mar period, with portions of Cochise County only receiving 7-9% of average winter precipitation. Several winter storms crossed southern in Arizona in March providing very limited short-term relief to some locations. Portions of western Pima County received above average precipitation amounts, but most of Cochise County did not benefit from these storm systems.

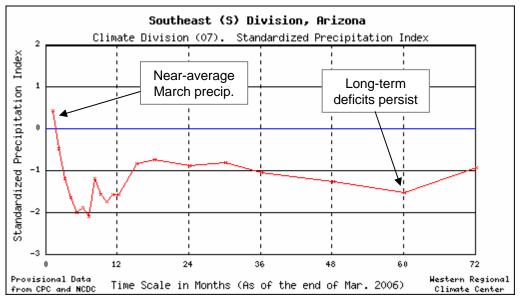
Forecasts for the late spring-early summer season (May-June-July) from the Climate Prediction Center indicate that the southwest U.S. will see above normal temperatures with a slightly increased chance of above-average precipitation. A trend in above normal temperatures is expected to continue leading to the above normal temperature forecast. The precipitation forecast is based on the continuation of weak La Nina conditions in the equatorial Pacific Ocean through the spring into the summer monsoon season. Dynamical models are suggesting a slight enhancement of the North American Monsoon system and possibly increased chances of above-average precipitation across southeast Arizona during the summer rainy season. This forecast is also based on statistical relationships with past summer monsoon seasons related to La Nina conditions and summer seasons that followed dry winters. These statistical relationships are weak and poorly understood, but suggest a slight shift towards above-average precipitation based on current and forecasted circulation and sea-surface temperature patterns. (More information at http://www.cpc.noaa.gov/products/predictions/90day/fxus05.html)



Exceptionally dry conditions over this past winter season has dragged PDSI values down close to -4 indicating very dry conditions across southeast Arizona. PDSI values reflect short to medium term drought conditions (~3-10 month window). Several winter storms crossed Arizona in March and boosted precipitation amounts to close to average for the month. This near-average precipitation provided very limited short-term relief and did little to alleviate long-term drought conditions.



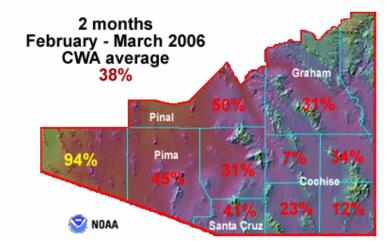
## Southeast Arizona Climate Summary - Spring 2006



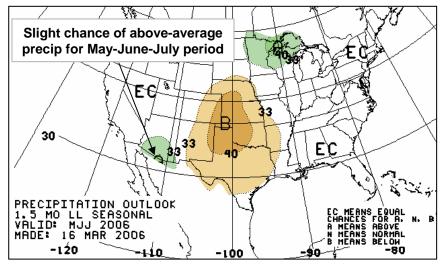
Near-average March precipitation amounts across SE Arizona are reflected in the positive SPI value at the 1-month lag. The negative SPI values at all other lags indicate the continuation of both short-term and long-term drought conditions. SPI values are very low in the short-term window of 2-12 months. These values reflect the exceptionally dry conditions since winter of 2005.

Winter into spring precipitation amounts for the February-March period were highly variable for the period, but far below average at most locations with a regional percent of average value at 38%. Western Pima county received the most precipitation during the period at was close to average for the Feb-Mar period. Cochise, Graham, and Greenlee counties received the least precipitation with amounts between 7% and 34% of average.

The May-June-July seasonal forecast from the Climate Prediction Center depicts a slight increase in chances of aboveaverage precipitation for southeast Arizona. The forecast means that there is a greater than 33% chance of aboveaverage precipitation, a 33% chance of average, and less than a 33% chance of below-average precipitation for the May-June-July period. This forecast is based on numerical/dynamical forecast models as well as statistical relationships that suggest enhanced summer monsoon activity with La Nina conditions present in the Pacific Ocean and dry antecedent winter conditions.



http://www.wrh.noaa.gov/twc/climate/seazDM/cwa\_percent.php



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