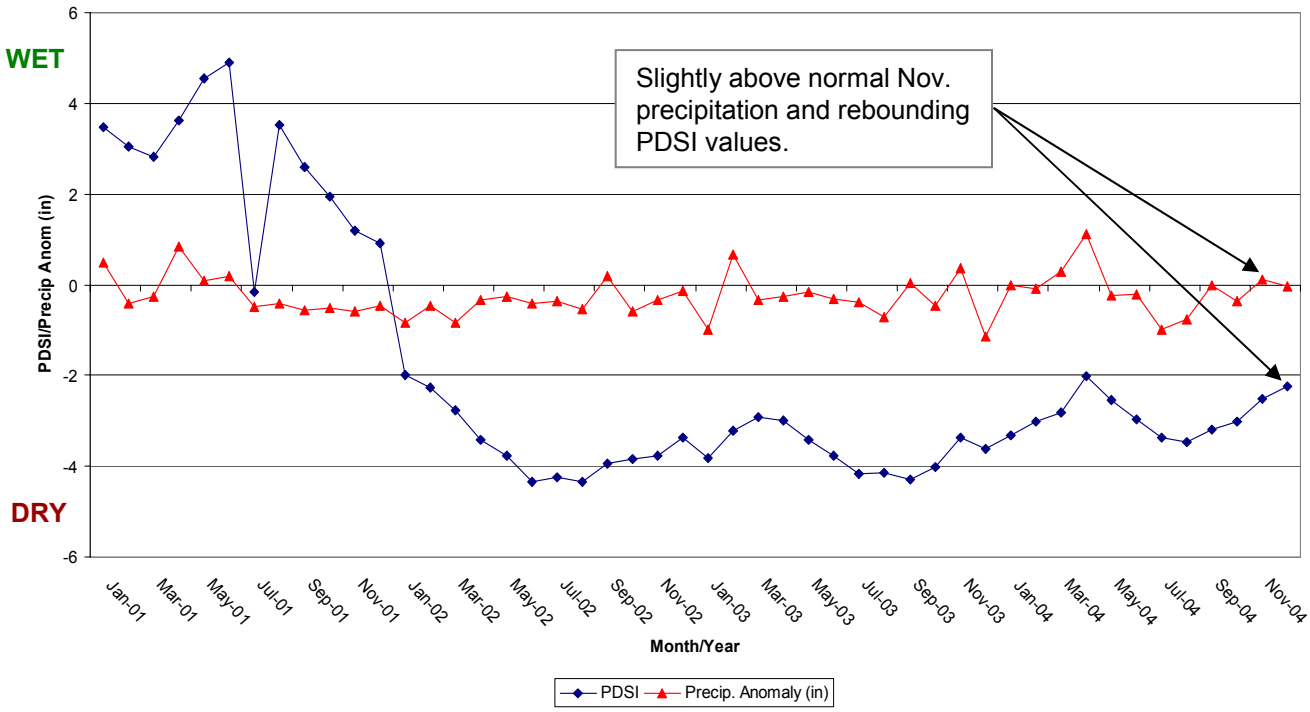
Southeast Arizona Climate Summary
Winter/Early Spring 2005

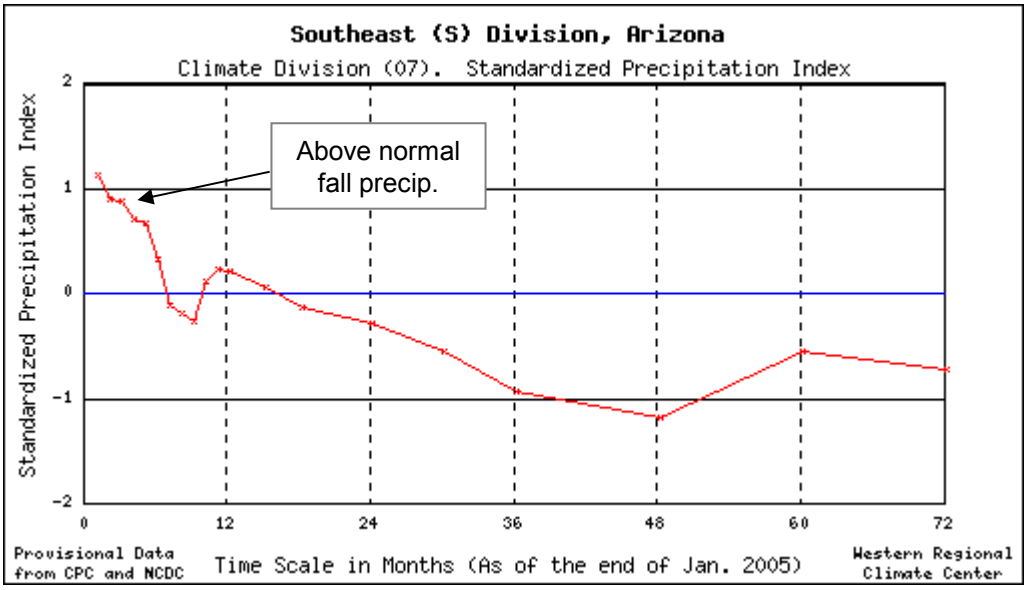
February 12, 2005 – The early to mid-winter period of November through January was exceptionally wet for most of Arizona compared to the last several winter seasons. Portions of northwest Arizona received up to 300% of average precipitation during December. Southeast Arizona seemed to miss out in these extremely wet conditions and was only slightly above normal during this same period. Precipitation amounts were from 130% to 150% of normal for the period of November through January. Early season snowpack levels were above normal from several cold storm systems during December, but levels have since fallen quickly. Several weeks of above normal temperatures in January and the passage of several warm and wet storm systems in late January and early February have eroded established snowpacks.

Forecasts for spring (March-April-May) from the Climate Prediction Center predict that the southwest U.S. will see above normal temperatures with a slight chance of above normal precipitation. Weak El Nino conditions are present in the equatorial Pacific region and are forecasted to weaken further through the spring. Current above normal sea-surface temperatures associated with the El Nino event appear to be too weak to impact weather conditions in southern Arizona leading to a lower confidence precipitation forecast. The lack of strong El Nino or La Nina conditions in the tropical Pacific reduces the signal typically used to make higher confidence precipitation forecasts for the southwest U.S. The higher confidence temperature forecast is based on the upward trend in regional temperatures continuing.
(More information at http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/)

Southeast Arizona Palmer Drought Severity Index and Precip. Anomaly: Jan. 2001 - Dec. 2004



Normal to above normal fall precipitation helped to slightly improve drought conditions as reflected in the improving PDSI values. Long-term drought conditions are reflected in the consistently negative PDSI values extending back to the 2001-2002 winter season (line with diamonds).



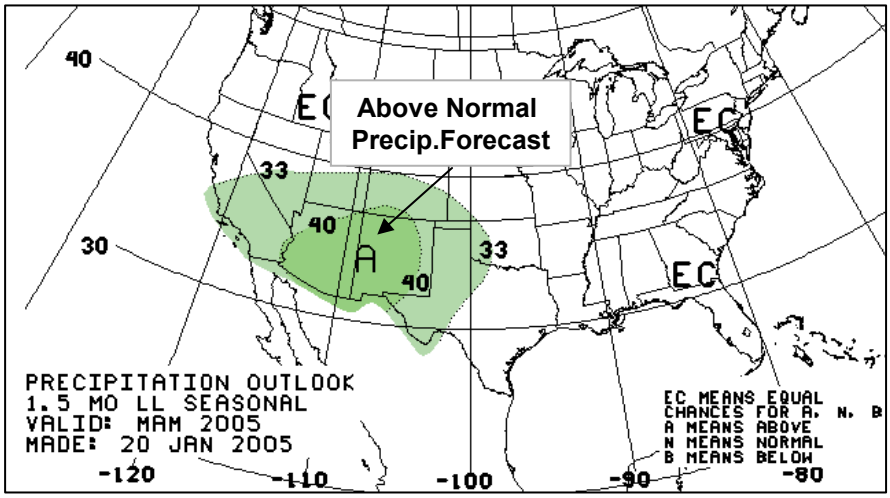
SPI values show that cumulative precipitation amounts extending back six months are above normal with respect to the long-term record. January precipitation amounts were over one standard deviation above normal (SPI for Jan: >1). Longer-term windows (36-48 mos.) still show that cumulative precipitation amounts are way below (>1.5 standard deviations) normal reflecting the extended drought conditions of the last several years.

Average December temperatures were very close to normal at most locations across SE Arizona. Local precipitation amounts were variable across the region with most stations receiving 70-80% of normal. This is a marked improvement over precipitation amounts experienced in December of 2003 when some SE Arizona locations received less than 15% of normal precipitation for the month.

Location	Dec. 2004 Avg. Temp (F)	Dec. Long-term Avg. Temp (F)	Dec. 2004 Total Precip(in.)	Dec. Long-term Avg. Precip (in)
Willcox	43.4	42.5	0.88”	1.11”
Safford	44.2	44.5	0.61”	0.86”
Chiricahua N.M.	44.5	43.4	1.30”	1.64”
Douglas	44.6	45.5	0.55”	0.94”
Tucson	52.7	52.1	0.71”	0.98”

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

The March-April-May seasonal forecast from the Climate Prediction Center shows a slight chance of above normal precipitation over Arizona and New Mexico. The above normal precipitation forecast is based on weak El Nino conditions in the Pacific Ocean and a possible continued trend in wet winter conditions. Overall confidence in the forecast is low due to the weakness of the El Nino event. The lack of strong El Nino or La Nina conditions makes a high confidence precipitation forecast for the southwest U.S. region difficult.



From: http://www.cpc.noaa.gov/products/predictions/long_range/lead02/off02_prcp.gif