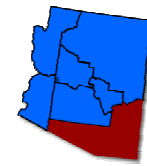


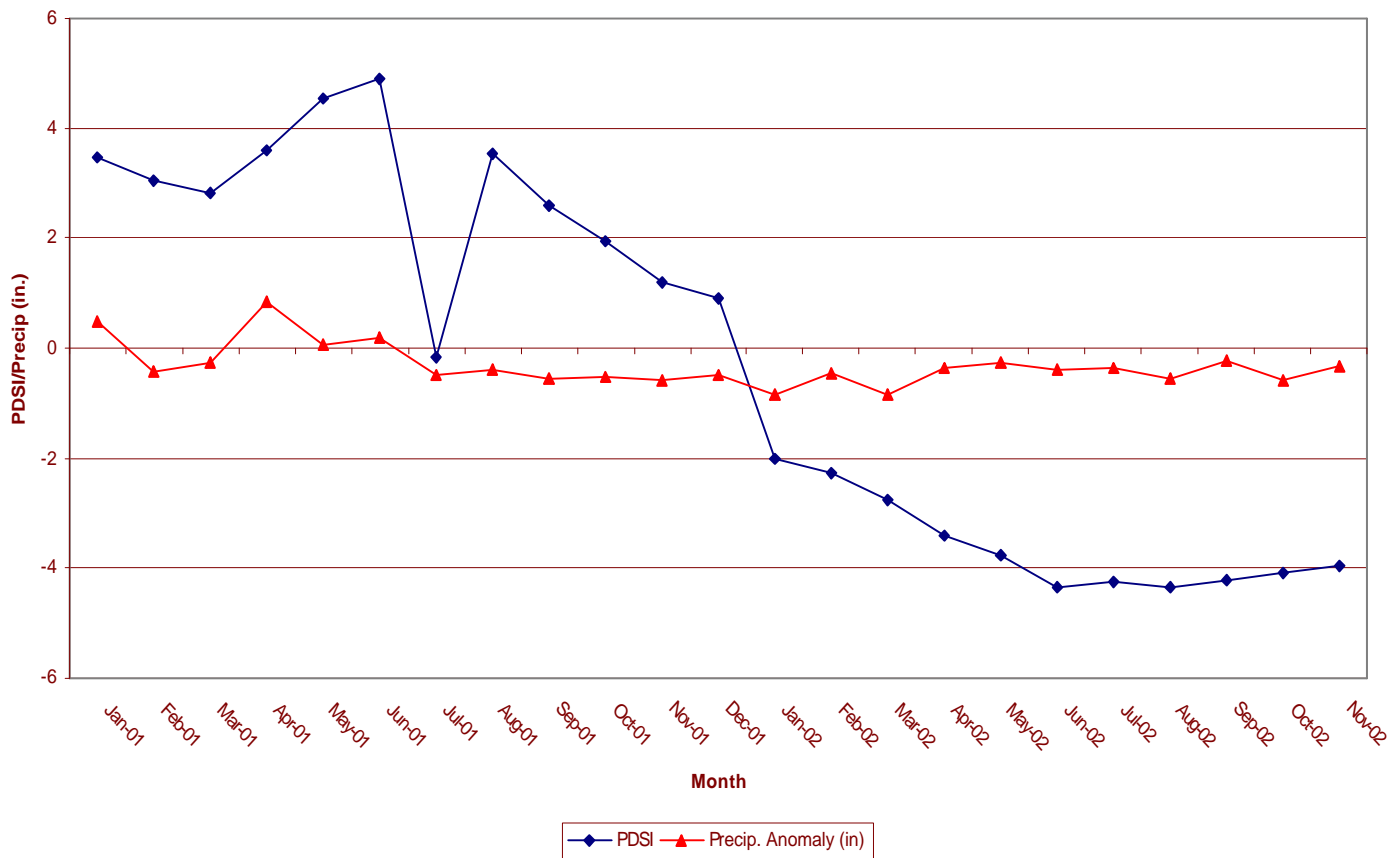
Southeast Arizona Climate Summary

Fall 2002-Winter 2003



January 10, 2003 – Weak to moderate El Niño conditions in the equatorial Pacific region continue to persist though early January. These conditions are considerably less intense than those associated with the 1997-98 El Niño that produced above normal winter precipitation across the southwest United States. Weak to moderate El Niño conditions produce highly variable winter precipitation amounts. Early season winter storms in November and December appeared to have been associated with a strong southern branch jet stream across the southwest possibly enhanced by the El Niño conditions. A strong and persistent southern jet stream is an important feature associated with strong El Niño conditions. Our current weak-moderate El Niño has failed to induce a strong and persistent jet stream and storm track across Arizona. This jet stream track may still develop this winter, but has been highly variable over the last two months. (More information at http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/)

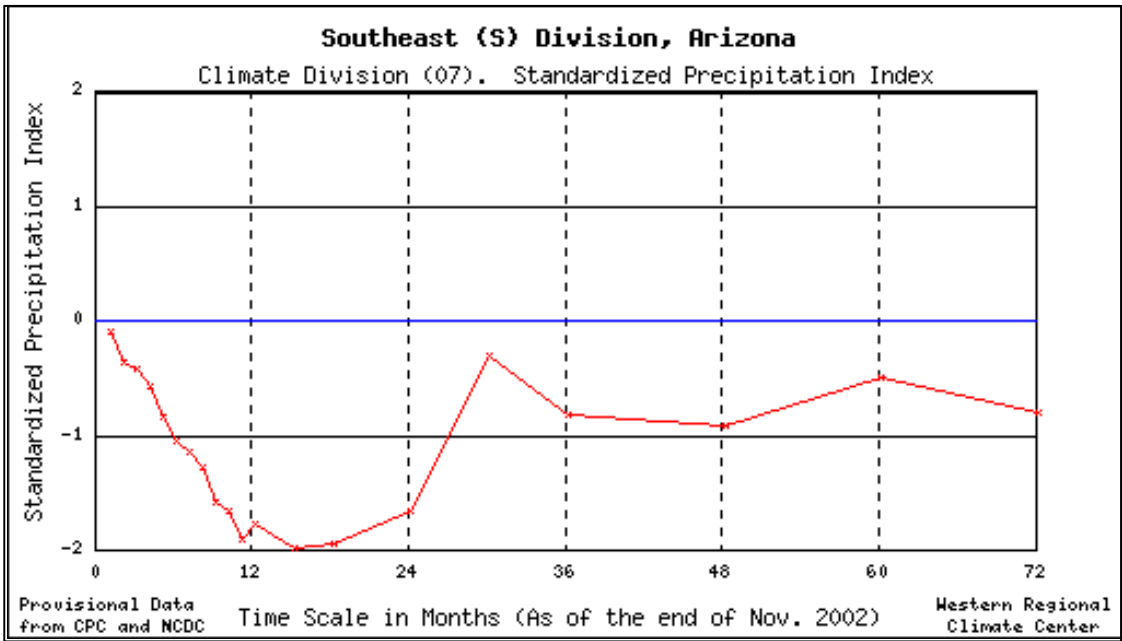
Southeast Arizona Palmer Drought Severity Index and Precip. Anomaly: 2001-02



Monthly precipitation for climate division #7 (SE AZ) has been consistently below normal every month since July of 2001. This has caused Palmer Drought Severity Index values to reach extreme drought levels (note line with diamond symbols on graph).



Southeast Arizona Climate Summary - Fall 2002



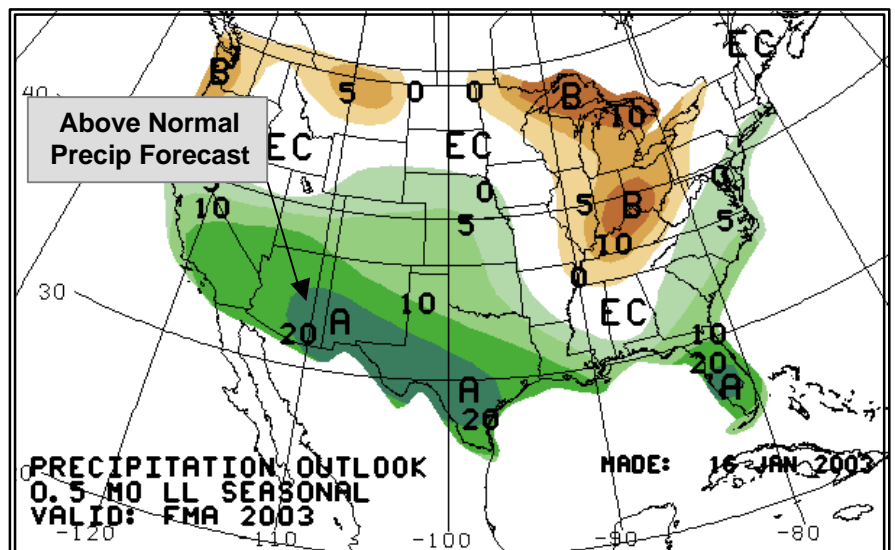
SPI values show that short-term precipitation amounts are slightly below normal for SE AZ. 12-24 month periods prior to Nov 2002 are still close to 2 standard deviations below normal, indicating persistent, longer term drought conditions.

Most locations across southeast Arizona experienced above normal temperatures and below normal precipitation for Nov. 2002. The Western Regional Climate Center estimates that most locations across SE AZ are at less than 50% of normal for the early winter season of 10/1/02 – 1/1/03.

Location	Nov. 2002 Avg. Temp (F)	Nov. Long-term Avg. Temp (F)	Nov. 2002 Total Precip(in.)	Nov. Long-term Avg. Precip (in)
Willcox	52.4 F	50.3	0.27"	0.73"
Safford	54.4	52.1	0.19"	0.56"
Chiricahua N.M.	52.1	50.5	0.30"	1.31"
Douglas	53.5	52.5	0.10"	0.74"
Tucson	61.4	59.2	0.23"	0.67"

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

The spring forecast from the Climate Prediction Center shows above normal precipitation for Feb-Mar-Apr. This forecast appears to be based on regional precipitation patterns that accompany typical El Niño conditions. The current 02-03 El Niño has few similarities to past strong El Niño events and may not produce these forecasted above normal precipitation patterns. El Niño related jet stream patterns will have to quickly redevelop for the remainder of this winter to provide above normal precipitation amounts.



From: <http://www.cpc.noaa.gov/products/predictions/90day/lead01/p02.gif>