

# The Town of Oro Valley Quarterly Drought Monitor

June 2009

## **LOCAL OUTLOOK AND DROUGHT STAGE**

### **Water Year 2009 (10/01/08 through 9/30/09)**

The Town of Oro Valley maintains Stage 1 drought conditions as the Third quarter of the 2008-2009 Water Year comes to an end. The Drought Response Plan lists 4 drought stages that are possible. Drought stages may change when 2 or more of the subsequent stage criteria or triggers are met. Criteria include temperature<sup>1</sup>, precipitation, Drought Monitor Levels<sup>2</sup>, and average annual decline of static water levels (groundwater).

#### **Temperature**

The summer heat hit quickly in early May and brought warmer than average temperatures. However, late May and early June have been generally cooler than average across the Southwest. In Oro Valley the high day time temperatures in May ranged between a 103 degrees and 74 degrees.

#### **Precipitation**

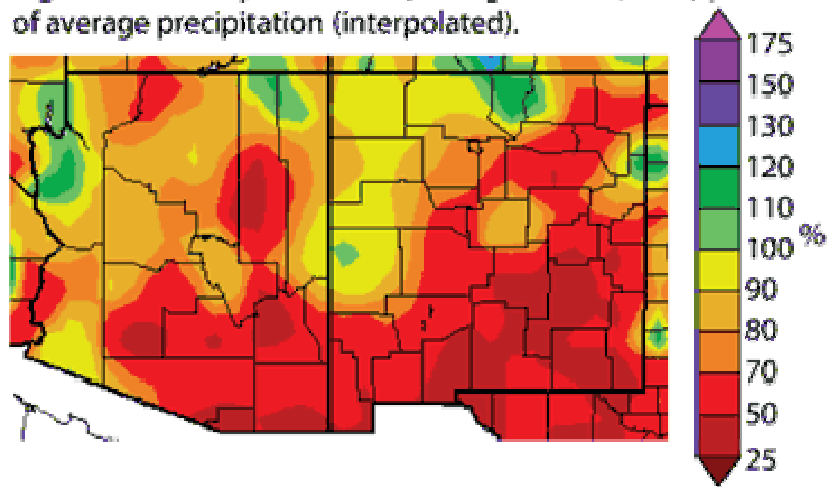
Precipitation in late spring and early summer was unusual for the Southwest. The average precipitation for the water year as reported on the CLIMAS (Climate Assessment for the Southwest) website, ranges between 50% – 70% in the Oro Valley area (Figure 2a).

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<sup>1</sup> Temperatures are averaged from Marana, Tucson, and Oro Valley and are reported by the Arizona Meteorological Network (AZMET) and local weather stations

<sup>2</sup> Drought Monitor Levels: National Oceanic and Atmospheric Administration (US Drought Monitor)/State Drought Monitor (ADWR)

**Figure 2a.** Water year '08-'09 (through June 17, 2009) percent of average precipitation (interpolated).



Determining specific locations on this map can be difficult because there are no coordinates. As a result, an estimated average precipitation is also assessed. This data is gathered from local sensors placed by the Pima County Regional Flood Control District as well as local networks. From this time last year through June 2009, the local monitored areas received **80% of the average precipitation** based on historic averages. The average precipitation is higher when evaluating the current water year<sup>3</sup>. From October 2008 through June 2009, Oro Valley has received **63% of the average precipitation**. Please CTRL + click on link below to view information about sensor data or visit <http://rfcd.pima.gov/wrd/alertsys/index.htm> or [CLIMAS: Climate Assessment for the Southwest](#)

### **Static Water Levels**

The average decline of static water levels for calendar year 2008 was **4.4 feet**. Drought stages may be changed when levels are greater than or equal to 4 feet.

<sup>3</sup> Water Year runs from October 1<sup>st</sup> through September 30th

# REGIONAL OUTLOOK

**Climate Forecasts<sup>4</sup>** – Forecasts show increased chances of above-average temperatures for much of the Southwest through the summer with increased rain chances at least for the first half of the season.

**The Bottom Line** – With the onset of monsoon storms and the anticipation of wetter than average conditions, drought conditions show a slight improvement in Arizona and New Mexico.

## [US Drought Monitor](#)

**Figure 1a**

The data cutoff for Drought Monitor maps is Tuesday at 7 a.m. Eastern Standard Time. The maps, which are based on analysis of the data, are released each Thursday at 8:30 a.m. Eastern Time.

## U.S. Drought Monitor Arizona

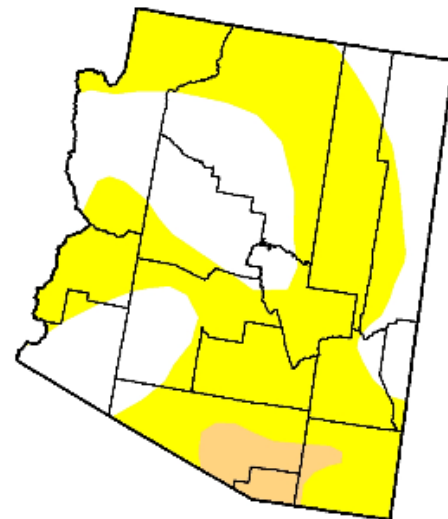
June 30, 2009  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	38.2	61.8	4.6	0.0	0.0	0.0
Last Week (06/23/2009 map)	35.4	64.6	7.2	0.0	0.0	0.0
3 Months Ago (04/07/2009 map)	59.7	40.3	1.7	0.0	0.0	0.0
Start of Calendar Year (01/06/2009 map)	62.3	37.7	1.0	0.0	0.0	0.0
Start of Water Year (10/07/2008 map)	83.1	16.9	0.8	0.0	0.0	0.0
One Year Ago (07/01/2008 map)	43.1	56.9	22.1	1.9	0.0	0.0

**Intensity:**

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional



*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements*

<http://drought.unl.edu/dm>



Released Thursday, July 2, 2009  
Author: R. Tinker, CPC/NOAA

<sup>4</sup> Climate forecasts reported on the Climate Assessment for the Southwest (CLIMAS) website

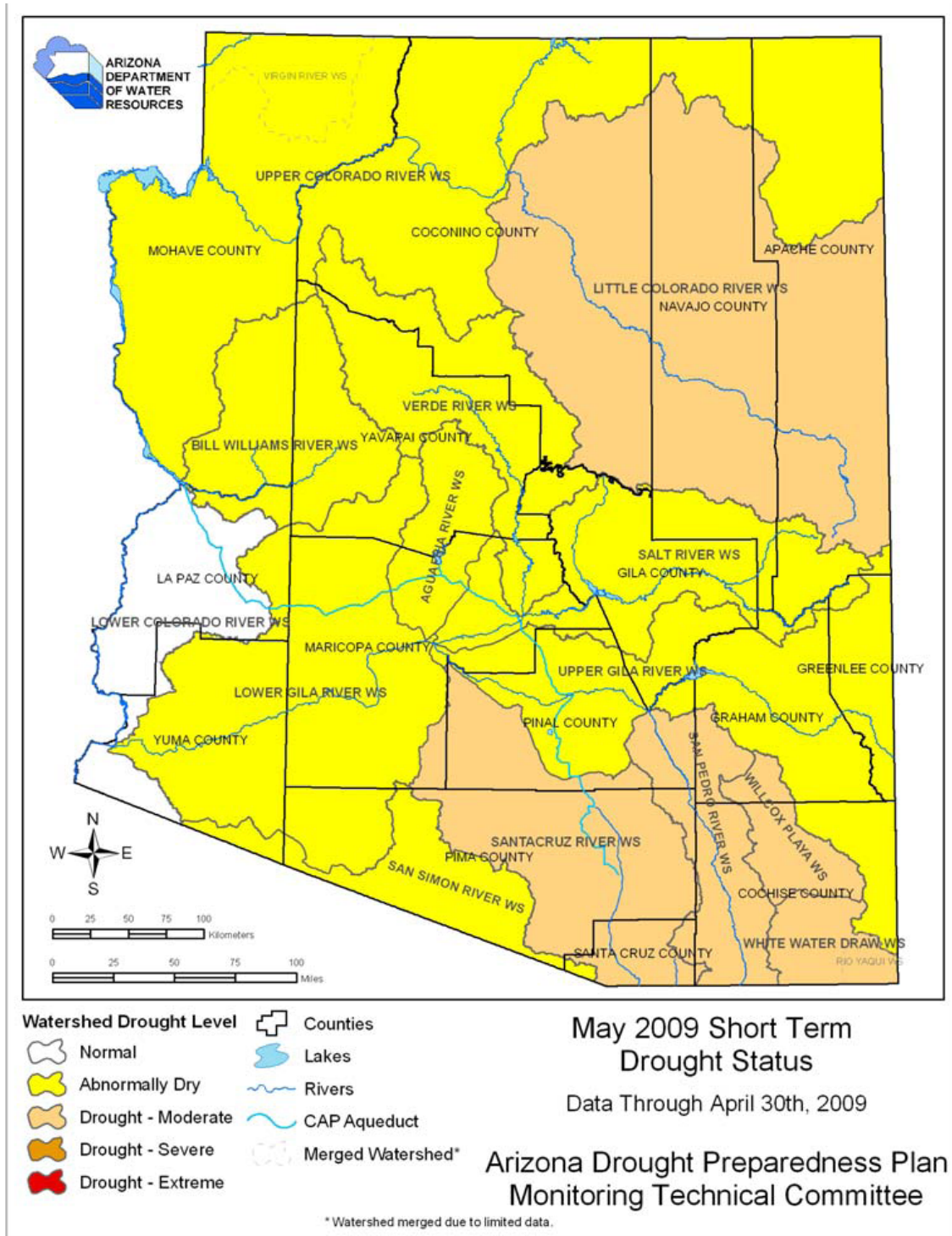
## **The Drought Monitor – Regional/Local**

The Drought Monitor takes many important factors into account when providing forecasts and current conditions. Regional results and outlooks provided by the US Drought Monitor are viewed in broad-scale, short-term (weekly) conditions (Figure 1a). The Oro Valley area continues to be abnormally dry. However, it is also important to regard the local prospects provided by the Arizona Department of Water Resources (ADWR). Issues that directly affect the local area such as stream levels, snow pack, temperatures, and other issues are considered (Figure 3a).

For state conditions see the Arizona Department of Water Resources or CTRL + click on the link below.

[ADWR Drought](#)

Figure 3a



## Summary

The monsoons officially started on June 15, in Arizona. This date was adopted by the National Weather Service last year to reduce the confusion. In the past, start dates were declared based on criteria such as dew points. This year's monsoon season is forecasted to

produce above average rainfall which should improve short-term drought conditions. However temperatures are predicted to be warmer and the impacts of drought continue in Arizona. In an effort to support ongoing conservation actions and in keeping with other local water providers and Pima County, Stage 1 conditions should ideally be maintained at this time.