Pima County Local Drought Impact Group
(Drought Monitoring Committee)
Wednesday, July 8, 2009
2:30 p.m.
Public Works Building-3rd Floor Conference Room

Attendance:	Kathy Chavez	RWRD	Fernando Molina	Tucson Water
	Chris Smith	USGS	Linda Smith	Tucson Water
	Jim Leenhouts	USGS	Steven Amesbury	NEMO/WRRC/UA
	Mitch Basefsky	CAP	Evan Canfield	RFCD
	Lilian von Rago	RWRD	Patti Woodcock	Health (via videoconf)

1. Introductions were made and K Chavez reviewed the summary of the May 13, 2009 meeting. There were no corrections or additions.

2. ADWR Activities
   - K Chavez reported that Melanie Ford has moved to the Water Infrastructure Finance Authority and her position is planned to be filled by ADWR. Susan Craig is filling in for her until then. K Chavez provided an overview of the May Drought Monitor Report which shows eastern Pima County in moderate drought and the remainder abnormally dry. The June DMR will be posted soon and reflects May conditions. The long term status will next be updated in July as it is now updated quarterly.

3. Climate Change in the Colorado River Watershed
   - Mitch Basefysky, CAP, provided a presentation how the Central Arizona Water Conservation District is preparing for climate change. Their strategy consists of a three-pronged approach; management the Colorado River, conservation and reduction of "lost" water, and augmentation of the Colorado River. River management is accomplished consistent the 7-Basin state agreement and the Secretary of Interior's Colorado River guidelines and shortage sharing agreement. Shortages for the lower basin states are based on the elevation of Lake Mead. Within CAP shortages will affect users in the following order (from lowest to highest priority); banking excess CAP water, non-Indian agricultural uses, and municipal, industrial and Native American uses.

   - Conservation and reduction of "lost" water includes management of the Yuma Desalting Plant, a Drop 2 reservoir and vegetation management. These strategies are to reduce the amount of Colorado River water flowing out of the state where it no longer can be used for on-the-river uses or diverted to the CAP canal.

   - Augmentation plans being explored include desalination, importation of additional water and weather modification. CAP is also looking to manage and maximize water banking; underground storage of CAP water for recovery during shortage years. They are also collaborating with partners to develop more detailed climate change models. An additional climate change issue concerns CAP system power usage. Cap and trade legislation will impact CAP power costs because they obtain electricity from the Navajo Generation Station, a coal-fired power plant, to pump water along the CAP canal system. CAP is the largest power user in Arizona using more that 2.8 million mega-watts in 2008. They are looking at ways to use power more efficiently through operation and management of the pumping stations along the canal system. Wind and solar alternatives are under consideration, but the main constraints are lack of transmission and storage. In order to meet CO_2 emissions, Navajo GS will either need to make costly modifications or buy credits. NOAA is piloting weather modifications on the western slope of the Colorado Rockies and is evaluating flooding concerns.

4. Methods for Estimating the Magnitude and Frequency of Floods in Arizona and Application to StreamStats
   - J Leenhouts, USGS, explained that hydraulic analysis and flood frequency analysis involves regional regression equations. Data from the 230 USGS gauging stations in Arizona are used to determine flood magnitude and frequency at those stations. Using regression models with data for precipitation, basin characteristics, vegetation type etc., this data can be applied to un-gauged stations. Regressions equations have been developed for ten southwest states using data

through 1986. USGS has determined that adding 23 years of new data and data from newly installed stream gauges would be of value in updating the regression model. USGS is building cooperative partnerships and will be working to develop a web-based program, StreamStats, to implement the regression equations at the state level. It would have many applications such as predicting maximum probable floods, updating FEMA maps and estimating discharge flows. J Leenhouts offered to provide a live web demonstration at a later date.

5. Next Meeting
   - Wednesday, September 9, 2009 at 2:30 p.m.
   - 201 N Stone-3rd Floor Conference Room
   - Suggested items for September are: Update on DroughtWatch and update on 2009 summer monsoon precipitation

6. Adjournment