



PIMA COUNTY LOCAL DROUGHT IMPACT GROUP

Wednesday, January 9, 2013

2:30 p.m.

Public Works Building
201 N Stone Avenue
3rd Floor Conference Room
Tucson AZ 85701

AGENDA

Attendance:	Kathy Chavez	RWRD	Karen Wilson	RWRD
	Mitch Basefsky	CAP	Chris Smith	USGS
	Lilian Von Rago	RWRD	Erin Boyle	NWS
	Mead Mier	PAG	Robin Johnson	OCS
	Todd Henderson	Town of Marana	Marie Light	PDEQ

Speakers:	Claire Zucker	PAG
	Candice Rupprecht	UA, WRRC
	Emily Brott	Sonoran Institute

1. Welcome & Introduction – Introductions were made
2. Updates – Kathy Chavez
 - o Drought Status Map – January 1, 2013
 - Short Term – December was wetter than the two previous dry winters but not enough precipitation to make up the moisture deficit.
 - NE Arizona on the Navajo Nation and western Maricopa County still have large areas of extreme drought (D3)
 - Snowpack is well above average in Arizona, but the snowpack in the Colorado River watershed is currently between 50% and 75% of normal
 - More winter storms are needed to maintain the snowpack through spring
 - Long Term – the long-term drought map will be published in January 2013
 - o Drought Interagency Coordinating Group (ICG) met in November 2012
 - Arizona Drought Preparedness Annual Report complete
 - ICG forwarded to the Governor recommendation to maintain the Drought Emergency Declaration
3. Eastern Pima County Shallow Groundwater Areas – Claire Zucker, Pima Association of Governments

Before discussing her topic, Claire informed everyone that PAG is developing an on-line library. Staff has been hired to scan all the documents PAG has in their library and put them on-line in a searchable data base.

PAG began the shallow groundwater study in 2000 in support of the Sonoran Desert Conservation Plan

- Shallow Groundwater Areas (SGA) identification
 - Groundwater within 50 feet of surface
 - Commonly supports numerous private wells
 - May or may not have surface water
- 32 shallow groundwater areas grouped into ten regions were identified in Pima County
- Of the 19,590 wells in Pima County, 2,590 are in Shallow Groundwater Areas
- Exempt wells are private/residential and have a maximum pump capacity of 35 gpm
- Non-exempt wells typically belong to water providers, irrigation, mining activities and pump greater than 35 gpm
 - If a non-exempt well is located in an AMA (Active Management Area), withdrawals are reported to ADWR annually
- The majority of new wells drilled since 2000 are exempt (453 out of 486 wells), the remaining 33 new wells are non-exempt (production wells)

The *Shallow Groundwater Areas in Eastern Pima County, Arizona*¹ report provides information that may be of use to land managers, planners, water providers, private well owners and ecologists.

- Well drilling continues to be active in eastern Pima County
- Since 2000, well drilling was most active in the Rillito-Tanque Verde System, the Cienega-Davidson System and the Pantano-Rincon System
- Repeat water level measurements are needed.
 - 14 of the 32 areas studied have insufficient data to determine trends
- The Santa Cruz-Sopori System and the Rillito-Tanque Verde System represents just over 92 percent of all withdrawals
 - Water withdrawal may not be the only concern – many of the basins have significant water withdrawals or high well density that could be more active in the future
 - Small withdrawals can adversely affect riparian vegetation depending on the aquifer storage, basin geometry and locations of wells and vegetation
- Central Santa Cruz River region and the Rillito-Tanque Verde System show similar long-term water level declines until the early 2000s when reduced water withdrawals resulted in an aquifer rebound.
- Some areas show declining groundwater levels and high well density
- Areas of shallow groundwater are important for riparian areas that are dependent on groundwater
- Sustained drought conditions can adversely impact groundwater levels if well owners pump more groundwater to mitigate drought

The report is available at PAG's website: [PAG](#)

¹ *Shallow Groundwater Areas in Eastern Pima County, Arizona – Water Well Inventory and Pumping Trend Analysis*, Pima Association of Governments, October 2012

4. The Conserve to Enhance (C2E) Story – Candice Rupprecht, Water Resource Research Center and Emily Brott, Sonoran Desert Institute

Conserve to Enhance (C2E) was originally developed by Dr. Sharon Megdal of the Water Resources Research Center. The Tucson Conserve to Enhance (C2E) program links water conservation efforts with watershed restoration and enhancement to ensure that water conservation will translate into benefits for the environment.

- Currently partnered with Tucson Water
 - Water saved through conservation translates into donations to support environmental enhancement
 - Tucson Water's bill has a check box program "Open Space/Riparian Contribution"
 - Volunteer participants donate money accrued from water saving to fund C2E projects
 - Money and water to environmental projects
- C2E participants have saved 1.9 million gallons (5.8 acre feet) of water from January 2011 through September 2012
 - Donations equaled \$1,700
 - Value of saved water - \$4,600
- Program results in measurable water conservation that may not have occurred
 - Extends existing water supplies
- Donations are distributed by the Advisory Board to selected environmental enhancement projects
 - In 2012, \$12,000 was invested in Atturbury Wash (near Lincoln Park) for a one acre restoration and demonstration site

Community Enhancement Projects Grant

- C2E will fund
 - Green Infrastructure along streets, parking lots, parks or public spaces (i.e., churches/schools)
 - Projects within 400 feet of a neighborhood was get priority
 - Projects in areas of concentrated flow or flooding get priority
 - Habitat Restoration along washes
 - Restoration in tributary washes or upland drainages
- Goals of Neighborhood C2E Projects
 - Increase native, drought-tolerant vegetation near washes and rivers to expand habitat, cool temperatures and slow/sink stormwater
 - Increase soil moisture near washes/streams to support native habitat
 - Reduce runoff and associated pollutants that end up in washes
 - Beautify areas new neighborhood washes
 - Reduce erosion and sedimentation in smaller tributaries
- Community Enhancement Grant application due February 8, 2013
- For more information, [C2E](#)

5. Next LDIG Meeting – 1:30 p.m. Wednesday, March 13, 2013 – **Tree Ring Laboratory, U of A (1215 E Lowell St)** **PLEASE NOTE NEW TIME AND LOCATION FOR THIS MEETING**

- Winter Rains – Erin Boyle, NWS
- Colorado River Outlook – Mitch Basefsky, CAP
- Tree Ring Record of Drought in SW [Tree Ring Lab](#)

6. Adjournment