

**Local Drought Impact Group (LDIG) Leadership Meeting**  
**Central Arizona College, Room M101**  
**January 11, 2007**

In attendance were:

Name	Affiliation	Email
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Pete Weaver	Pinal County Public Works	<a href="mailto:Pete.Weaver@co.pinal.az.us">Pete.Weaver@co.pinal.az.us</a>
David Snider	Pinal County Supervisor	<a href="mailto:David.snider@co.pinal.az.us">David.snider@co.pinal.az.us</a>
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Frank Corkhill	ADWR – Hydrology Division	
Doug Baugh		
Nancy Selover	Office of Climatology, Arizona State University	<a href="mailto:selover@asu.edu">selover@asu.edu</a>
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The first 2007 meeting of the Pinal County Local Drought Impact Group (LDIG) was held on January 11, 2007 at Central Arizona College. The attendance of interested individuals was greatly appreciated. Various drought and water-related issues were discussed.

1. Welcome and Introductions. Rick Gibson, University of Arizona Cooperative Extension Agent and County Director, and Pete Weaver, Pinal County Emergency Manager welcomed those in attendance and set the stage for the ensuing discussions. The agenda topics were selected as a means of increasing the understanding of LDIG members for water, drought and the management of related issues.
2. Frank Corkhill, Hydrologist for the Arizona Department of Water Resources provided an over view of water in Arizona, including issues surrounding groundwater and surface water resources. Frank provided an overview on Pinal County water resources. Pinal County includes the Pinal Active Management Area, and portions of the Phoenix Active Management Area, and the Tucson Active Management Area. Data from 2004 shows groundwater pumpage totals were between 300,000 and 400,00 ac-ft, most of this was a result of agricultural pumpage. In the late 80's Central Arizona Project (CAP) water became available for direct use and recharge, accordingly groundwater levels increased. Pinal County is comprised of three aguifers, the upper alluvial, the middle aguifer comprised of silt & clay, and the lower conglomerate. Frank provided an overview of surface water available to Pinal including CAP, the Santa Cruz River, and the Gila River. Frank also showed maps that depicted the location of the major population centers, the Irrigation Districts and the Indian Tribes.
3. Mike Crimmins, University of Arizona, College of Agriculture and Life Sciences, described the effects of climate variability on the availability of water at the local level. Water recharge from rainfall events is a relatively slow process. Safe yield becomes a critical issue. Precipitation (ppt) is highly variable throughout Arizona. Multiple year droughts are not uncommon in Arizona. Temperatures are increasing and will increase aridity, this will in turn decrease snowfall ppt. Arizona is influenced by weather patterns from the Gulf of Mexico in the summer, and the Pacific in the winter. El Nino can disrupt jet stream patterns in the winter. La Nina means low ppt in winter. El Nino can be strong (high ppt) or weak (low ppt). Long-term wet/dry cycles can occur over 3-30 year cycles.
4. Nancy Selover, Office of Climatology, Arizona State University, discussed the processes of working with the State Monitoring Technical Committee. The Monitoring Technical Committee (MTC) depicts drought status for 15 watersheds, comparing current ppt data to records going back 30 years. Nancy explained that for "going further into drought", for each of the drought categories (short- and long-term) the individual indicators in a watershed must reach or pass a certain prescribed threshold for two consecutive months. For "coming out of drought", for each of the drought categories (short- and long-term), the individual indicators in a watershed must reach or be lower than a certain prescribed threshold for four consecutive months. Close association and communication between the MTC and the LDIG is key and will be important as we work through the issues related to drought mitigation.

5. Susan Pater and Kim McReynolds, Cochise County LDIG, met with the group through a conference call. They provided an update on the status of their LDIG which is somewhat further along in their startup process. They related their experiences in developing a drought response group, the excellent headway in their outreach and education efforts and the challenges they face in developing a monitoring program. Current status is as follows: the Mitigation & Response Workgroup developed a mitigation and response plan that was reviewed and approved in November 2006, the Education & Outreach Workgroup is coordinating with the local Water Wise Program so that efforts won't be duplicated, and the Monitoring Workgroup is assisting in developing a monitoring reporting system with Mike Crimmins, UofA, Cooperative Extension. The Drought Impact Reporting System (DIRS) that Mike Crimmins is developing will allow water-use sectors to report drought impacts and will assist the LDIG and the MTC in verifying the drought status maps. The Cochise County LDIG is currently discussing how municipalities could report drought impacts.
6. Possible future topics were identified and added to a list without further discussion. Those topics include:
  - Looking for places to put new well monitors – Possible sights to put more monitors in to record monitor drops.
  - Pinal Active Management Area working on data collection
  - Need some more information and presentations
  - How to respond to drought in various areas in Pinal County (David Snider)
  - Get expertise on each of the three working group areas
  - Get reports from working groups at next meeting
  - Work on group visions
  - Have one more general meeting to address topics that have been raised
  - Presentation on impacts of droughts in all different areas
7. The working groups met after the general session. After the working group discussions, the meeting was adjourned.

### Minutes from the MITIGATION AND RESPONSE WORKGROUP Meeting:

Present were: Bill Collings, Doug Mason, Kendra Tso and Glinda Weddle

The Workgroup established a time line for preparing a rough draft of the mitigation and response plan by June 2007 and a final draft plan by December 2007. The members discussed whether the plan should include the history of Pinal County, charts, graphs, maps and etc and decided to limit this workgroup's scope to an Action Plan.

The following points were presented and discussed.

- 1) Exempt wells. It is believed that exempt wells should have reporting requirements. Possible oversight and penalties for non-compliance (to make sure they are only pumping 35gpm) Assist individuals to develop mitigation strategies of their own. Limit future exempt wells to 8 gpm.
- 2) New Homes on septic systems. It was felt that there should be rules that all new home construction on septic systems should also require a grey water system.
- 3) Private water companies and municipal sewers should be required to have reuse or effluent recharge. It was noted that some are already doing this and that AkChin does reuse for non-potable uses.
- 4) Agriculture should look at how it delivers water to crops, water loss through having open ditches, should consider underground piping, and other water conserving techniques.
- 5) Pool covers should always be required. Possible limitations on how many times a pool could be drained and refilled in a 12 month period.
- 6) Limit grass, support volunteer programs to remove grass and replace with desert landscaping. Put a surcharge on excess water use.
- 7) Encourage more surface water use (CAP) and less groundwater pumping (reserving these supplies for future use) could use the Pinal County Water Augmentation Authority (PCWAA) for various types of exchanges and recharge projects in Pinal County.
- 8) Should have a mechanism whereby there are surcharges on all potable water bills beginning as a normal base charge and incrementally increasing/decreasing with each drought stage declaration. The thinking here is to both reduce water usage and provide a funding method for water banking through the PCWAA.

Develop programs, participate and support ADWR in new rules (AWS).

This group agrees that all public water wells should have monitoring equipment. And this information should be available in an easily understood format, possibly a graph, (maybe publicized in the newspaper regularly).

This committee is interested in having a field trip to see Global Water Company's reuse of water.

The Mitigation and Response Workgroup will meet next:

When: Thursday, February 1, 2007

Where: ADWR, Pinal AMA – conference room

Time: 8:30 to 10:30 a.m.

Focus: Action Plan – fill in responses (of government, communities & utilities, individuals) to various drought stages  
(using the Arizona Drought Preparedness Plan as a spring board)

**Drought Stages**

Normal (reduce vulnerability)

Abnormally Dry (Raise Consciousness)

Moderate (Voluntary Reductions)

Severe (Curtailement)

Extreme (Eliminate Non-essential Water Use)