



PIMA COUNTY LOCAL DROUGHT IMPACT GROUP
Wednesday, July 10, 2013

RECAP

Attendance:	Kathy Chavez	RWRD	Karen Wilson	RWRD
	Erin Boyle	NWS	Lilian Von Rago	RWRD
	Melanie Alvarez	PAG	Chris Castro	UA
Speakers:	Carlos Minjarez Sosa	UA	LoriAnne Barnett	UA

1. Welcome & Introductions – Introductions were made
 2. Updates – Kathy Chavez
 - Recap May 8, 2013 LDIG meeting
 - Drought Interagency Coordinating Group Meeting, May 20, 2013- Recommendation to Governor to continue Drought Emergency Declaration
 - Drought Status Maps – all of Arizona in some stage of drought
 3. Pima County Drought Management Plan Review – K Chavez
 - Review of Drought Management Plan and Ordinance
 - Drought Management Plan and Ordinance adopted in June 2006
 - Review of Plan and recommendations to modify performed July 2013
- Action Item** – review attached documents and submit recommendations, suggestions, for discussion at September 11, 2013 LDIG meeting.
4. Estimating Convective Precipitation by Using Cloud-to-Ground Lightning Events over Southern Arizona at Higher Time and Space Resolutions – Carlos Minjarez Sosa, UA
 - Estimating precipitation using Cloud-to-Ground Lightning is extremely difficult
 - Uses Radar, Rain Gauges or combination of both
 - Poor radar coverage in the southwest, affects QPE (quantitative precipitation estimate) model reliability
 - 3 modeling forms (National Lightning Detection Network plus National State IV QPE product equals the National Mosaic & Multi-sensor QPE) and improved QPE
 - Must be a convective storm
 - Lightning can be used to estimate precipitation over poor sensor coverage areas
 5. Using Phenology Monitoring to Understand Species Response to Drought and Climate Change – LoriAnne Barnett, UA
 - Study of recurring plant and animal life-cycle stages and their relationship to environmental conditions
 - Phenology is a good indicator of a changing climate
 - National Phenology Network – creating standardized dataset for use in multiple types of research <https://www.usanpn.org/>
 - Possible responses to Drought/Climate Change Conditions:
 - Earlier Spring flight of butterflies
 - Earlier snowmelt in the Rockies influences timing of sub-alpine blooms
 - Yellow-bellied marmots emerge earlier from hibernation
 - Migrant birds arrive earlier
 - Food source mismatches

- Drought conditions affect bloom time of desert adapted plants
 - Timing of egg laying in Mexican jays
 - Shifts in timing of Management Actions
 - Study blooming and seed patterns to advise timing of herbicide application to invasive species (buffelgrass for example)
 - Wildfire management – longer the drought, longer plant dormancy creates fuel abundance
 - Nature's Notebook
 - Connecting people with nature to benefit the changes
 - Plant/Animal observations entered in searchable database
https://www.usanpn.org/natures_notebook
6. Audience Roundtable
- Melanie Alvarez, PAG, distributed Watershed Pocket Guides
7. Adjournment

**NEXT LDIG MEETING – WEDNESDAY, September 11, 2013
(National Weather Service Office/USGS Building)**

- Monsoon Results – NOAA/NWS Speaker
- Colorado River Outlook/CAP – Mitch Basefsky, CAP
- Pima County Drought Management Plan Review - continued