

PIMA COUNTY LOCAL DROUGHT IMPACT GROUP
Tuesday, November 10, 2020
Via Microsoft TEAMS
RECAP

Attendance: Kathy Chavez (Pima County Office of Sustainability and Conservation), Némesis Ortiz-Declet (Arizona Department of Water Resources), Erin Boyle (National Weather Service), Mitch Basefsky (Central Arizona Project), Ian Murray (Pima County Office of Sustainability and Conservation), Jeff Glickhorn (Pima County Office of Sustainability and Conservation), Glen Barnes (Community Water Company of Green Valley), Ken Drozd (National Weather Service), Lee Comrie (Pima Association of Governments), Jaime Galayda (Tucson Water), Mark Johnson (Tortolita Alliance), Colby Bowser (Pima County Office of Sustainability and Conservation)

1. Welcome & Introductions – Kathy Chavez, OSC, welcomed attendees and announced them.
2. Review September 9 LDIG meeting - Kathy Chavez, OSC
 - a. 2020 Annual Report
3. Arizona Department of Water Resources Updates - Némesis Ortiz-Declet, ADWR
 - a. Short-Term Drought Status
 - i. Review of past five months. Drought conditions in May were improved, then drought degradation followed, reflecting drying conditions. The delay of monsoon affected all of Arizona, primarily the southeastern parts of the state. October was also dry. Extreme drought is seen in 75% of Arizona. Increased potential for wildfires continues.
 - b. Long Term Drought Status
 - i. Monsoon last year was also below normal. Winter improved with runoff to reservoirs. Winter conditions ended early and spring was warm. July-September shows drought degradation. Extreme heat resulted in increased evaporation and higher water demand. Arizona has received less than 70% average precipitation across the state. The outlook is for a drier than average fall and winter.
 - c. Recap ICG meeting
 - i. Meeting today. The Interagency Coordinating Group advises the Governor on the emergency drought declaration. Meeting notes and the recommendation will be posted later in November on [ADWR's drought website](#).
 - d. 2020 Annual Report
 - i. ADWR's annual report is a collaboration with MTC and LDIGs for water year. This year features a new design. It will be published in late November on ADWR's drought webpage.
 - ii. The Monitoring Technical Committee will meet January 7 and will update the long-term map.
4. Bighorn Fire: Flood Preparedness Plan – Lynn Orchard, Pima County Regional Flood Control District
 - a. Summary of fire. Started June 5. Fire progression: Pusch Ridge moving east as result of high winds from southwest, over Mt. Lemmon, CDO watershed to San Pedro watershed.
 - b. Photos: Observed severity, condition of alert system and flood risk. High intensity from Oracle Ridge, along Dan Saddle and Oracle Ridge. Shrub in Pima Canyon area. Some areas are re-burn from Aspen fire near Summerhaven

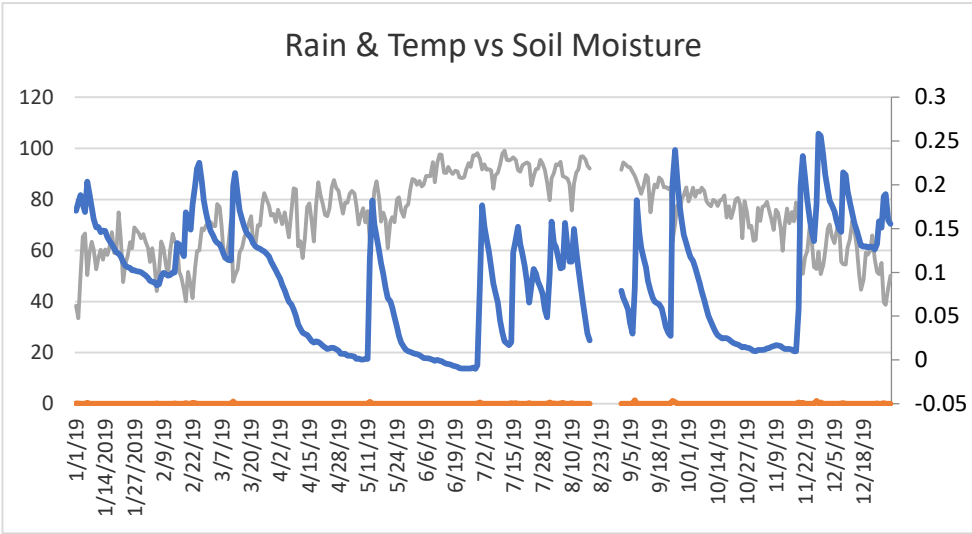
- c. Preparedness efforts:
- i. Post fire hydrology conducted early on to address flood concerns in Pusch Ridge, Valley View. The criterium was a 100-yr 3-hr storm (monsoon storm)
 - ii. Fire's movement to CDO watershed expanded flood risk to CDO. CDO wash and surrounding area experienced flood damage after Aspen Fire. The Bighorn Fire overlapped burn areas of Bullock and Aspen fires. Bighorn Fire was larger and overlapped both. The Flood Control District also modeled debris flows. Post fire conditions show 100% increase for the 100-yr 3-hr storm event in CDO watershed. Watersheds flooding risk on south face of the Catalina Mountains is lower; 10-30% increase. Modeled flood hazards overlain with existing maps show areas at increased risk for flooding. Some homeowners not previously in flood hazard area are now in the flood hazard area.
 - iii. ALERT System is a real time weather information network used to notify public safety agencies. It is largely automated. The first priority during the fire was to evaluate its condition. There are twelve sites in Catalina Mountains; only one was lost to the fire. The Forest Service worked to protect ALERT sites. The Flood Control District repaired damaged streamflow gauges; the CDO gauge was a key one. There is no monitoring equipment in the Pusch Ridge Wilderness, so it is a blind spot. Two new rain gauges were built here. Major modifications were made at Sabino Creek to protect from sediment. The Flood Control District expanded the list of agencies that receive ALERT notifications. Flood alert messages can now be sent using Pima County's MyAlert notification system. The Flood Control District is also working with the National Weather Service's Flash Flood Warning Collaboration.
 - iv. Public Outreach
 1. Residents that are now in hazard area; have reached out to them, urged to sign up for MyAlert, advised to sign up for flood insurance and create emergency plan
 2. Infrastructure Improvements; NRCS funding for channel improvements at Pima Wash at Ina Road, new alert rain gauges. FEMA grant for levee enhancements on CDO, culvert modifications at Finger Rock at Skyline. Also Bufflegrass mitigation
 - v. Long Term Sediment Monitoring
 1. Acquiring LiDAR for burn area plus CDO watershed above US Highway 77
 2. USGS to create long term monitoring reaches
 3. University of Arizona to conduct a suspended sediment and bedload transport study
 - vi. Continued Alert System enhancements
 - vii. Historical alert data: Conditions have remained dry, there has been no significant rain in Catalina Mountains and none on the burn area. Using the Aspen Fire (2003) as an example, there was a one-year lag time between the fire and flooding damage in the CDO
 - viii. Questions:
 1. How did ongoing drought conditions affect flood analysis? Reflect current conditions like soil moisture
 2. What was the role of BAER in the response? It was limited by the COVID pandemic. Most work was remote. No mitigation as of now
 3. Concern with winter storms? There could be, if they last for several days and are widespread. Winter storms could affect multiple watersheds.
 4. Any focus on the Flood Land Acquisition Program? Not at this time

5. Updates

- a. Ian Murray/Jeff Glickhorn – working with UA Mike Crimmins/Climas to test passive versus active rain gauges. Wide distribution/variation in gauges
 - b. Mitch Basefsky/CAP – Higher risk of Tier 1 shortage; over 40% now. Over 500 maf in Mead. La Niña signal means less precipitation. April will be a key time for Reclamation to modify equalization flows between Lakes Mead and Powell. CAP is working with stakeholders to use the CAP canal to deliver non-project water. Key issue is water quality and staff has developed water quality standards to regulate non-project water discharges. Worked with AMWUA and SAWUA. Briefing Nov 23 am
 - c. Jaime Gayala/TW – Tucson Water will be presenting on recently-approved drought response plan in January
 - d. Erin Boyle/Ken Drozd/NWS – Last month was the 5th warmest and dry. Through November we have been 7°F above normal. Annual rainfall 1924 was 5.07” and we are now at 3.92”. Outlook is for low precipitation through spring. NWS will issue updated drought statement in the near future.
 - e. Lee Comrie/PAG – working with EPAC to develop environmental issues list
 - f. K Chavez shared a report from Bill Schock/Schock Ranch: No rain in September and very little in July and August. You can see how that has affected the soil moisture and the grass is in bad shape for this time of year. Also, the temperatures have been higher than last year which doesn't help. I hope this could be taken into account when assessing the severity of the drought. Usually the drought maps do not include our area in the most severely affected. Review of 2019 and 2020 graphs: Blue is average daily soil moisture, orange is total daily rain and grey is maximum daily temperature
6. Adjournment and next meeting is January 13. Notes and presentation materials will be posted on the [LDIG Website](#).
7. Meetings 2021: January 13, March 10, May 12, July 14, September 8, November 10

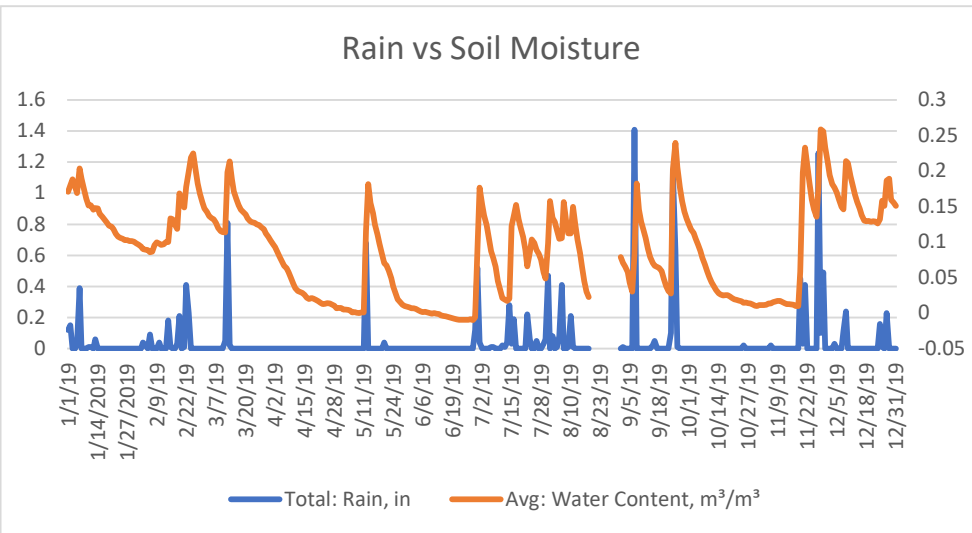
2019

Schock Ranch
4199 Hwy 82
Elgin, AZ 85611

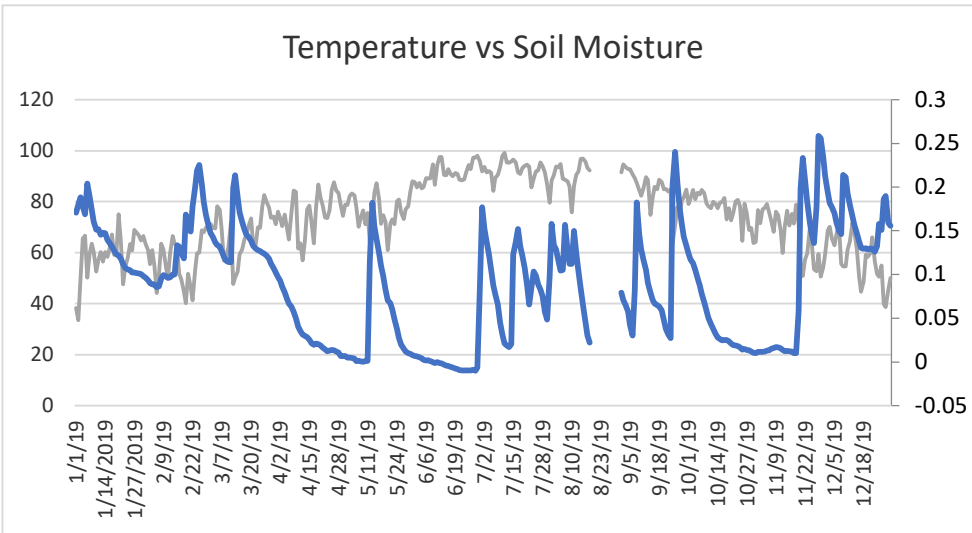


Rain/10 min, in

5/12/2019	9:40 AM	0.26
5/12/2019	9:50 AM	0.12
6/29/2019	1:40 PM	0.11
6/30/2019	1:50 PM	0.26
6/30/2019	2:00 PM	0.13
7/31/2019	1:20 PM	0.21
7/31/2019	1:30 PM	0.14
8/6/2019	7:30 PM	0.29
9/7/2019	4:34 PM	0.15
9/7/2019	4:44 PM	0.64
9/7/2019	4:54 PM	0.27
9/7/2019	5:04 PM	0.26
9/24/2019	12:04 AM	0.15
9/25/2019	4:24 AM	0.21

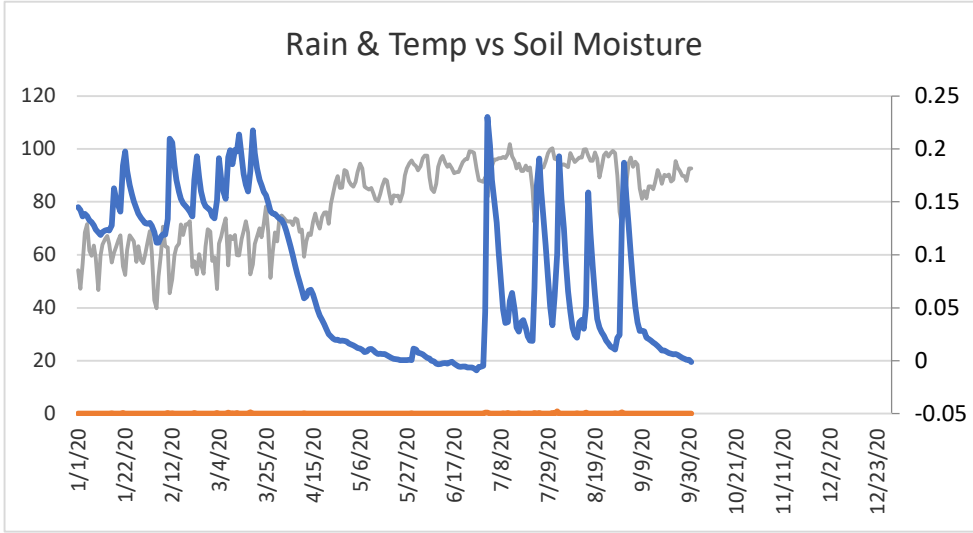


January	0.77
February	1.27
March	0.88
April	0
May	0.72
June	0.64
July	1.52
August	0.81
September	3.37
October	0.02
November	2.76
December	0.78
YTD	13.54



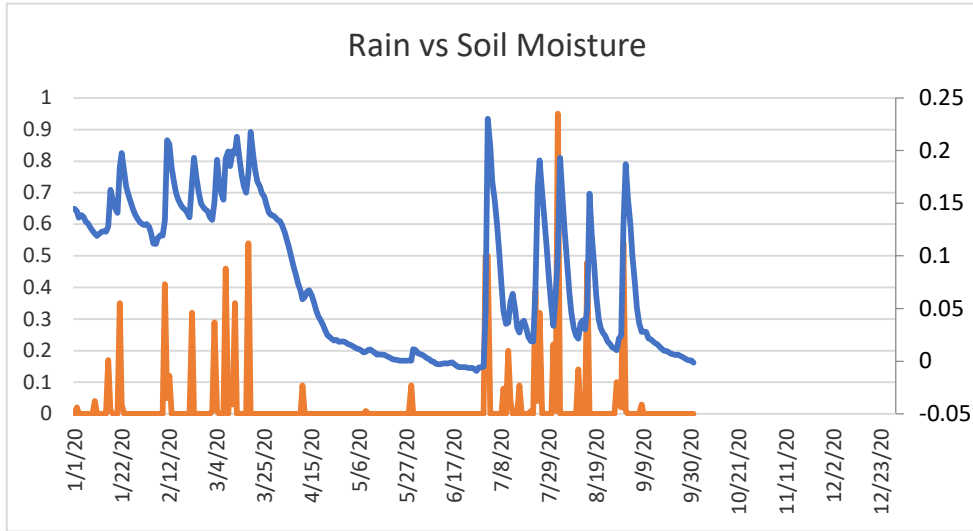
2020

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Rain/10 min, in

7/1/20	6:14 PM	0.13
7/1/20	6:24 PM	0.14
7/2/20	2:44 PM	0.11
8/2/20	7:24 PM	0.21
8/2/20	7:34 PM	0.31
8/2/20	7:54 PM	0.13
8/2/20	8:04 PM	0.1
8/15/20	5:44 PM	0.09
8/15/20	5:54 PM	0.11
8/15/20	6:04 PM	0.11
8/31/20	7:34 AM	0.12
8/31/20	7:44 AM	0.11



January	0.62
February	0.90
March	1.81
April	0.09
May	0.10
June	0.00
July	2.39
August	2.27
September	0.04
October	0.00
November	0.00
December	0.00
YTD	8.22

