

PIMA COUNTY LOCAL DROUGHT IMPACT GROUP
 Wednesday, July 8, 2020
 Via Microsoft Teams
 RECAP

Attendance:

| | |
|----------------------------------|----------------------------------|
| Asia Philbin, Town of Marana | Julia Fonseca, OSC |
| Bill Schock, Schock Ranch, Elgin | Kathy Chavez, OSC |
| Cathy Kuefler, Avra Valley Co-op | Kris LaFleur, Tucson Water |
| Caroline Vargas, RWRD | Marie Light, PCDEQ |
| Chris Avery, City of Tucson | Mark Johnson, Tortolita Alliance |
| Colby Bowser, OSC | Melanie Alvarez, PAG |
| Don Decker, NRCS/USDA | Melodee Loyer, FICO |
| Erin Boyle, NOAA/NWS | Mitch Basefsky, CAP |
| Glen Barnes, CWC Green Valley | Némesis Ortiz-Declet, ADWR |
| Jessica Rodriguez, Tucson Water | Wally Wilson, Metro Water |
| Jaime Galayda, Tucson Water | |

1. Welcome - Introductions and review of video conference features
2. Review March 11 meeting and current conditions - Kathy Chavez, OSC
 - a. ADWR reviewed short term drought showing improvement throughout Arizona, except in northeast Arizona
 - b. NWS reviewed the winter season producing near-normal precipitation
 - c. CAP reviewed Colorado River conditions
 - d. No May meeting due to Covid-19 shutdown
 - e. Review of recent local drought conditions:
 - i. Winter 18-19 was above normal; 4.62" (normal is 2.73")
 - ii. 2019 summer was hot and dry-monsoon precipitation was 2.2" below normal (4.84")
 - iii. Winter 19-20 precipitation was near normal 2.52" (normal is 2.73")
 - iv. May was hot: average high temperature was 96.7°F almost 12°F hotter than last May.
 - v. June average high temperature 102.2°F or 1.9°F warmer than normal (100.3°F)
Single digit dew points were recorded indicating dry air. Dry air combined with gusty winds contributed to extent and severity of Bighorn fire in the Catalina Mts.
 - vi. The Regional Flood Control District is conducting flood preparedness. Potential risk areas are in the CDO watershed and Catalina foothills canyon washes. RFCD is working with the Arizona Geologic Survey and USGS. Two new rain gauges have been installed at Finger Rock Canyon and Pima Wash
3. Arizona Department of Water Resources Updates - Némesis Ortiz-Declet, ADWR
 - a. Short-Term and Long-Term Drought Status
 - i. Review of July 2020 Short-term Drought Status Map: Past five months show improved drought conditions, except northeast Arizona has remained in Moderate (D1) to Severe (D2) drought. June's map shows degradation in central/eastern Arizona reflecting Abnormally Dry (D0) conditions.
 - ii. Review of April-June 2020 Long-term Drought Status Map: Past twelve months show improved conditions up to the January-March 2020 map. The April-June map shows drought degradation in some areas. Winter precipitation ended early and it has been dry. There are no strong trends for monsoon strength.

- b. ADWR Drought Interagency Coordinating Group (ICG) Meeting June 24
 - i. Presentation from NOAA indicates a 50/50 chance for La Niña conditions which typically trend toward drier and warmer conditions. The Salt River system peaked in May and, as of July 6, 2020, it was 92% full. Report from the Arizona Department of Forestry and Fire Management on forest health showed that there was a 66% increase in tree mortality due to bark beetle infestation on 2019, this is expected to decrease in 2020. The ICG agreed to recommend the Governor keep the Drought Emergency declaration in place.
 - c. ADWR Drought Monitoring Technical Committee Meeting July 7
 - i. Discussion of proposed Short-term Drought Status map and input from agencies. The U.S. Drought Monitor will be extending drought into Pima County to reflect dry conditions, as suggested by MTC members. Drought Status Reports available at [ADWR Drought Status webpage](#). Next meeting: Oct 5, 2020
 - d. Online demonstration of ADWR's Interactive Drought Dashboard. Many features include search by county and charts on past drought conditions. Available at [ADWR Interactive Drought Dashboard webpage](#).
4. Natural Resource Conservation Service and Drought – Don Decker, USDA-NRCS
- a. Review the NRCS mission. It has field offices throughout the state and works with conservation districts, meeting monthly. Mostly composed of range management specialists and soil conservationists. NRCS works with private land owners, ranches and federal lands.
 - b. Goal is to help farms and ranches cope with drought. Soils, water, air, plants with conservation plans.
 - i. Inventory property, collect data, create documents and prepare conservation plans. NRCS assists to implement practices, learn of their concerns, and ensures monitoring activities apply. Plans are voluntary, implementing practices involves working with farmers and ranchers.
 - ii. Resource concerns are soil condition, water quantity, plant condition, water quality, domestic animals, fish and wildlife (ESA),
 - iii. Farming concerns are water, irrigation systems and management systems.
 - iv. NRCS encourages farmers to have a drought plan with triggers and responses. One strategy is culling herds (Bulls). The Farm Services Agency has a drought relief program. Some private entities have drought insurance.
 - v. Access Roads specification. Rainwater for stock ponds are an accepted practice. Not used much in southeast Arizona.
 - vi. Review of resources available on [NRCS website](#). State office award of source water protection bulletin
5. Updates
- a. Bill Schock with Schock Ranch in Elgin has been monitoring soil, temperature and precipitation. This year has been much better, so far with some green in the grass since March when it started to warm up. Discussion of 2019 and 2020 data (attached) showing how soil moisture responds to precipitation and temperature. Last year the ranch experienced much grass mortality in the spring prior to summer rains. For ranching, soil moisture is a more important drought indicator, than precipitation
 - b. Erin Boyle, NWS – July's normal average temperature is 87°F. To date, the average has been 88.8°F, so it is slightly warmer. Normal precipitation is 2.55" and we have received 0.06", but it is still early in the month. There have been only three days the dew point was at 55°F or higher, but they were not consecutive days. There is a strong high pressure ridge, keeping temperatures high and the moisture south. There has only been one good storm along Santa

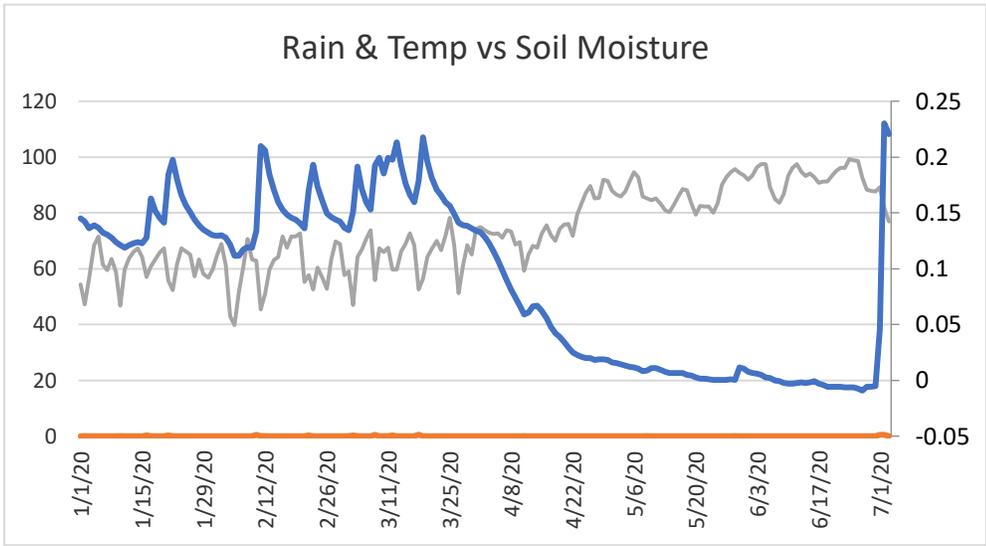
Cruz County. The forecast is for continued hot and dry conditions. Tucson might break temperature records this weekend. High pressure is expected to break next week. Climate predictions call for above normal temperature and below normal precipitation. The NWS has three incident meteorologists assigned to the Bighorn Fire to provide direct weather information. The concern now is for debris flow and flooding. The CDO headwaters are severely burned. USGS has assigned a debris flow assessment team. USGS provides [Post-Fire Debris Flow Hazard Assessments](#) that include basins affected by the Bighorn Fire.

- c. Julia Fonseca, OSC – Staff has been to conservation lands affected by the Bighorn Fire. There is much vegetation loss and OSC is working with USGS to identify sediment runoff impacts. Natural Resource, Parks & Recreation is looking to use stock ponds for sediment. Wet/dry mapping of perennial streams shows improved conditions.
 - d. Wally Wilson, Metro Water is starting to drill production wells.
 - e. Asia Philbin, Marana – State AWWA will hold a USDA training session on small water systems. August 4-5. Registration details [here](#)
 - f. Glen Barnes, CWC Green Valley – Office staff is working remotely and ensuring fail-safe operations. CWC has rehabilitated an additional well operating and is now operating four wells
 - g. Melodee Loyer, FICO – On track to take delivery of CAP water at the groundwater savings facility in August for few months. FICO does not irrigate its Pecan orchards in fall. Next year they will be prepared to take delivery of 10,000 af of CAP water at the gsf
 - h. Marie Light, PDEQ. Automatic stormwater samplers have been installed and PDEQ is ready for monsoons
 - i. Melanie Alvarez, PAG – No updates on Cienega Creek and Davidson Creek. Streamflow monitoring was conducted in June by small groups. PAG is processing data, however June Cienega flows were low compared to last year
 - j. Mitch Basefsky, CAP – Restarted the in-state re-consultation process in advance of renegotiation of 2007 interim guidelines for shortage sharing on the Colorado River. The Arizona Re-consultation Committee met to review long term changes. Reclamation is evaluating successes and impacts of 2007 guidelines; the evaluation will be complete by December. The re-consultation committee will include smaller, local meetings.
 - k. Mark Johnson, Totollita Alliance asked if there has been a flood assessment for the impacts from the Tortolita fire? NWS reported the fire was mostly on State land, so no assessment was done. Flood flows will be primarily to Pinal County
6. Adjournment and next meeting is September 9. Notes and presentation materials will be posted on the [LDIG Website](#).

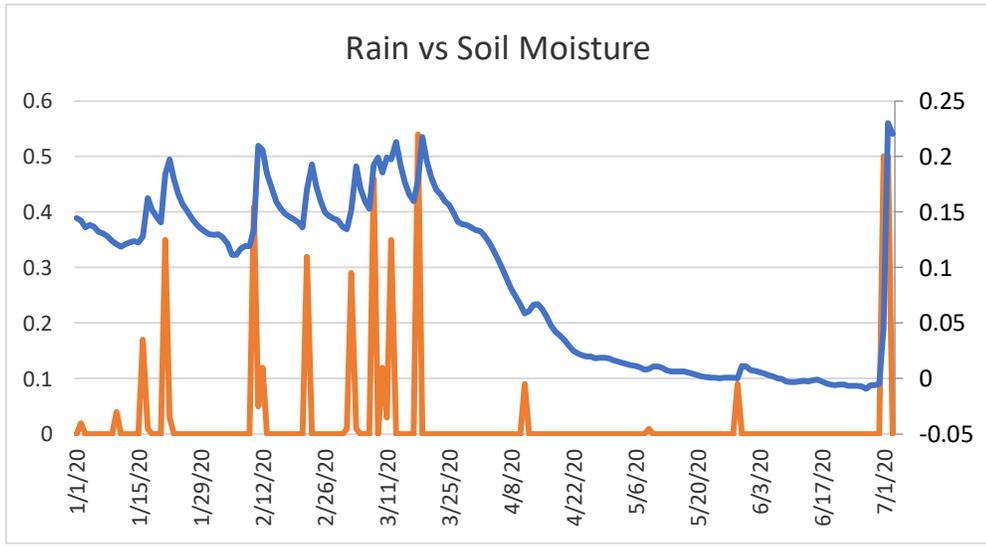
Data From Schock Ranch 2020

2020

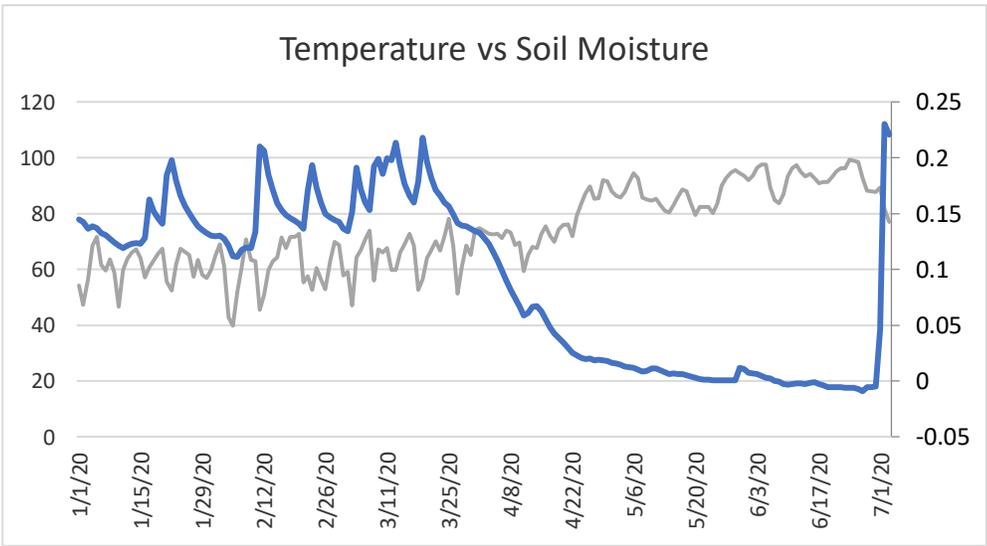
Schock Ranch
4199 Hwy 82
Elgin, AZ 85611



| 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 |



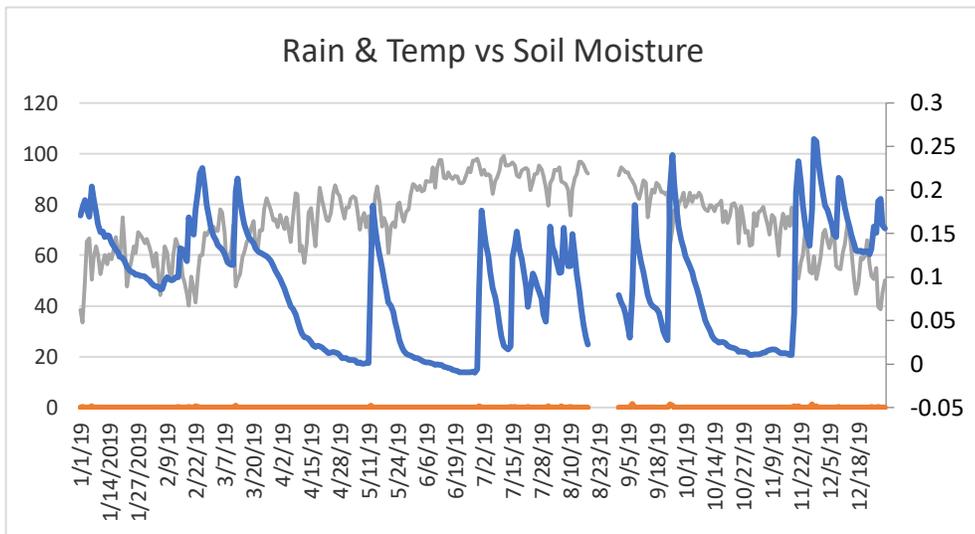
| | |
|-----------|------|
| January | 0.62 |
| February | 0.9 |
| March | 1.81 |
| April | 0.09 |
| May | 0.1 |
| June | 0 |
| July | 1 |
| August | 0 |
| September | 0 |
| October | 0 |
| November | 0 |
| December | 0 |
| YTD | 4.52 |



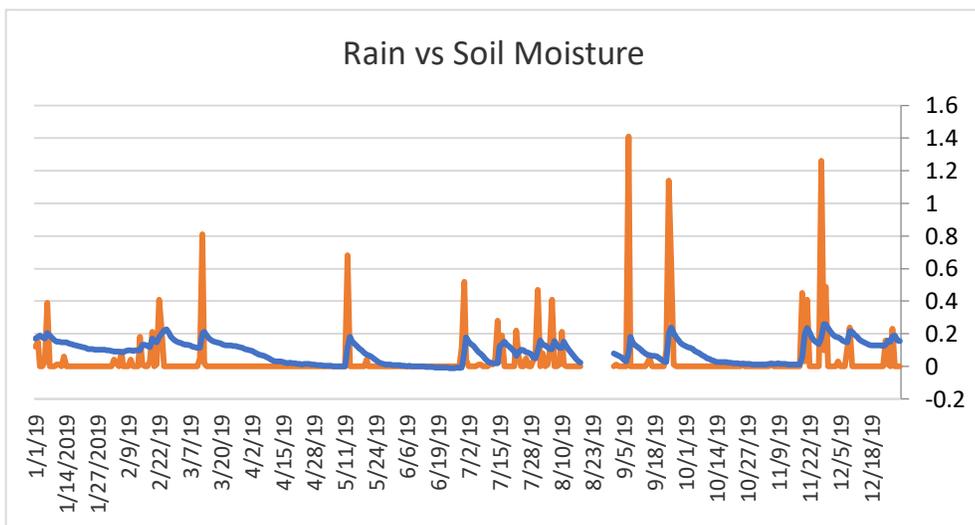
Data from Schock Ranch 2019

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 |



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|-----------|-------|-----|
| January | 0.77 | |
| February | 1.27 | |
| March | 0.88 | |
| April | 0 | |
| May | 0.72 | |
| June | 0.64 | |
| July | 1.52 | 5.8 |
| August | 0.81 | |
| September | 3.37 | |
| October | 0.02 | |
| November | 2.76 | |
| December | 0.78 | |
| YTD | 13.54 | |

