

PIMA COUNTY LOCAL DROUGHT IMPACT GROUP
Wednesday, March 10, 2021
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), Glen Barnes (Community Water of Green Valley), Jaime Galayda (Tucson Water), Wally Wilson (Metro Water), Mark Johnson (Tortolita Alliance), Melanie Alvarez (Pima Association of Governments), Marie Light (Pima County Department of Environmental Quality), Amanda Webb (Pima County Office of Sustainability and Conservation), Asia Philbin (Marana Water), Erin Murphy-Heinz (University of Arizona)

1. Welcome & Introductions – Kathy Chavez, OSC, welcomed attendees and announced them.
2. Review January 13 LDIG meeting - Kathy Chavez, OSC
 - a. ADWR provided updates
 - b. Tucson Water presented on their Drought Preparedness Plan which includes four tiers linked to CAP shortages; outreach is ongoing
3. Arizona Department of Water Resources Updates - Némesis Ortiz-Declet, ADWR
 - a. Short-Term and Long-Term Drought Status – Short-term status of the past five months reflects lack of monsoons during the 2020 Summer, leading to drought degradation throughout the state; there was minimal winter precipitation and slightly improved conditions in northeast Arizona, Flagstaff, and the Mogollon Rim. February's short-term status map was published Monday, March 9, 2021. It reflects precipitation was 25% of average. Nighttime temperatures were near average helping preserve high elevation snowpack, however, day temperatures were warmer than average. Fifty-four percent of the state was in Exceptional Drought (D4) and 31% percent was in Extreme Drought (D3). While La Niña conditions will weaken in spring, drier than normal conditions will likely continue.
 - b. Updates
 - i. National Groundwater Awareness Week - March 8-14
 - ii. Fix a Leak Week – March 15-21
 - iii. UN World Water Day - March 22
 - iv. April is Water Awareness Month
 - v. ADWR will provide Drought Status Update at PAG-EPAC on April 2
 - vi. Monitoring Technical Committee meets April 5
 - vii. Interagency Coordinating Group meets May 11. This is a public meeting
4. Review of 2020-21 Winter Season – Erin Boyle, NOAA/National Weather Service
 - a. Winter Highlights – 20th driest and 13th warmest with precipitation only 0.98 inches (normal is 2.73 inches). March 2020 through February 2021 is the driest 12-month period since 1900, only 3.53 inches of precipitation
 - b. December 2020 – there were far more occurrences of higher-than-normal daytime temperatures, than lower-than-normal days. Night time temperatures were about equally higher-than-normal and lower-than-normal. Precipitation was lower than normal; 0.25 inches compared to normal of 0.93 inches.
 - c. January 2021 also had far more days when the high temperature was above normal and several days of high temperatures exceeding 10°F of normal. Night time temperatures were

about equally higher-than-normal and lower-than-normal. Precipitation was almost normal, 0.73 inches compared to normal of 0.94 inches with a much welcomed winter storm event. Rainlog and Pima ALERT gages recorded precipitation ranging from 0.6 inches to 2.4 inches.

- d. February 2021 was the driest and 16th warmest, with no precipitation; normal precipitation is 0.86 inches. Again, there were more days when the high temperature was higher-than-normal
 - e. Drought conditions from early December 2020 to late February 2021 improved slightly in central/northern Arizona, a result of January's winter storms. However, compared to the same time as last year, the drought status has markedly worsened.
 - f. Outlook - Per the National Climate Prediction Center, drought conditions are expected to persist through the spring. The outlook calls for below normal precipitation and higher than normal temperature this spring.
 - g. The Colorado Basin River Forecast Center shows much of the Colorado watershed has experienced below average precipitation from October 1, 2020 through March 9, 2021. During the same period last year, the upper Colorado watershed experience below average precipitation, but Arizona had average or above average precipitation. For March, through March 9, precipitation in the Colorado watershed has been 0-30% of average reflecting no precipitation.
5. CAP and Colorado River Update – Mitch Basefsky, CAWCD
- a. Status of Lake Powell and Lake Mead – Lake Powell is down 32 feet from last year, has nine million acre-feet (maf) of storage and is 37% full. Lake Mead has 10.6 maf of storage, is 41% full and down 9 feet from last year
 - b. Snow equivalent tracking closely with 2012 which was dry year and below the long term average. It is also 86% of 30-year median which includes 20 years of drought conditions. Projections for the Lake Powell spring release is outside of equalization tier and in the balancing tier meaning a likely release 7.5 maf from Lake Powell to Lake Mead.
 - c. CAP's Probability of System Conditions shows the five-year outlook of probabilities for Lake Powell releases and Lake Mead elevation reduction tiers. There is a 60% probability of a Tier One shortage in January 2022 and the shortage probabilities do not improve going forward. The most probable projections for the elevation of Lake Mead on December 31, 2021 will be below 1075 feet and likely to be in a Tier One shortage. The shortage status will be determined in August when the Colorado Basin Forecasting Center issues its year-end projections.
 - d. A Tier One shortage means Arizona will leave 512,000 acre-feet (af) of CAP water in Lake Mead; 192,000 af as agreed under the Drought Contingency Plan and 320,000 under the 2007 Interim Guidelines. Tier 2B is when California contributes to the shortage. California also seeing drought and will draw their share of Colorado River water.
 - e. A Tier One shortage impacts Non-Indian Ag water and agricultural pool. Under the DCP, others will make up the shortage for farms. Tier One will not affect cities or Indian water. Under Tier Two, recovery of stored water will be used to make up shortages. Intentionally created surplus water (water stored in Lake Mead) is not included in projections.
6. Updates
- a. CAP has been preparing for shortages; is storing water and storing funds for rate stabilization. When delivery is cut, the per af cost will increase. Municipal water providers are storing funds to stabilize rates during shortage periods. A public meeting will be held March 25 on rate stabilization. However, lower power rates have decreased costs.

- b. Tucson Water has been coordinating with the University of Arizona and the Arizona Daily Star on articles related to climate studies. Tucson Water will be launching the first of three One Water workshops over next several months.
 - c. Pima County DEQ has conducted winter stormwater sampling collection. Three monitor sites show 13% of normal rainfall. Regarding changes in water demand affected by drought, Tucson Water noted demand has increased due to drought conditions as well as shifting demand from the commercial to residential sector as the pandemic has caused customers to work from home. Due to conservation, Tucson Water is using less and still storing CAP for future.
 - d. Tortolita Alliance is seeing drought impacts on Saguaros and other desert vegetation. The impacts from this past summer's wildfires were significant and there has been no vegetation recovery during the winter. There is concern about the upcoming wildfire season. The Alliance is sending photos of burn areas to Pima County's Natural Resources Parks & Recreation department. They are anticipating this spring's wildflowers, but not expecting it to be as robust as last spring's.
 - e. Pima Association of Governments is continuing monitoring efforts at Cienega Creek and Davidson Canyon. Staff has noticed stream flows are below normal. Davidson Canyon is largely dry. Cienega Creek is lower than usual, especially downstream of Davidson Canyon confluence. Quarterly monitoring is next Friday
 - f. Metro Water reports seeing an 11% increase in water demand; not as much from new development, but more likely related to the pandemic and drought. Metro Water is contributing 3,500 af of its CAP allocation for system conservation in Lake Mead. Saved funds are being used on infrastructure, such as the Northwest Recovery, Recharge and Delivery System. Metro Water is also storing CAP water underground.
 - g. Office of Conservation and Sustainability continues its rain gauge study comparing precipitation at five locations on conservation lands. Data analysis will be conducted next winter. The ranch and rangelands program considering whether to reduce herds due to drought and is looking for data and decision tools.
7. Adjournment and next meeting is May 12. Notes and presentation materials will be posted on the [LDIG Website](#).
8. Meetings 2021: May 12, July 14, September 8, November 10