

PIMA COUNTY LOCAL DROUGHT IMPACT GROUP
Wednesday, March 9, 2022
Via Microsoft TEAMS
RECAP

Attendance: Kathy Chavez and Colby Bowser (Pima County Office of Sustainability and Conservation), Némesis Ortiz-Declat (Arizona Department of Water Resources), Erin Saffell, State Climatologist/ASU, Erin Boyle (National Weather Service), Mitch Basefsky (Central Arizona Project), Dara Duffy (Green Valley Domestic Water Improvement District), Arturo Gabaldón and Glenn Barnes (Community Water Company of Green Valley), Wally Wilson (Metro Water), Cathy Kuefler (Avra Valley Water Co-op), Heidi Lasham (Town of Sahuarita), Selso Villegas (Tohono O'odham Nation), Vanessa Barchfield (Pima County Supervisor District 2), Justyn Dillingham (Pima County Communications Office), Marie Light (Pima County Department of Environmental Quality), Michael Seronde (University of Arizona/WRRC), Asia Philbin (Town of Marana), Jaimie Galayda (Tucson Water), Sandra Maina (Office of Sustainability and Conservation), Melanie Alvarez (Pima Association of Governments)

1. Welcome & Introductions – Kathy Chavez, OSC, welcomed attendees and announced them.
2. Review January 12 LDIG meeting - Kathy Chavez, OSC
 - a. ADWR annual report, short term and long term status, recap of Nov 10 ICG meeting
 - b. Colorado River Basin Conditions and NIDIS drought products
 - c. Drought Impacts on Pima County Conservation Lands
3. Arizona Department of Water Resources Updates - Némesis Ortiz-Declat, ADWR
 - a. Short-term and long-term Drought status:
 - i. Short-term: Moderate drought (D1) increased in the south and west portions of Arizona. Review of February map, most of state received below-average precipitation with northern counties receiving near-normal precipitation. Abnormally Dry (D0) conditions decreased to 25 percent, while Moderate drought (D1) increased to 46 percent including western Pima County. Severe drought (D2) was at 23 percent, mostly in the northern counties.
 - ii. Long-term: Long-term maps have not been updated since beginning of 2022. Next maps will cover Jan-March and will be provided after the Monitoring Technical Committee (MTC) meeting. In southern Arizona below-normal precipitation and above-normal temperatures increased evapotranspiration and worsened long-term drought.
 - iii. La Niña is weakening into summer with below-normal precipitation into spring.
 - iv. MTC meeting April 6th. Check ADWR public meeting webpage. GUAC meetings also scheduled. The Drought Interagency Coordinating Group meeting is May 4th.
 - v. Water Awareness Month is April and media and print available.
4. Winter Season 21-22 Overview – Erin Boyle, NWS/NOAA
 - a. Review of winter, December-February, and expectations for spring.
 - b. Winter, 70 percent of normal precipitation, warmer than normal. 1.82” precipitation, some snow in mountains, 2” below normal for Water Year. Observed precipitation widespread but below percent of normal.
 - c. December very warm with above normal precipitation. Third warmest and 33rd wettest. Most days above normal high and low temperatures. Observed precipitation widespread, departure from normal less rainfall on Pima County-Santa Cruz County border. December precipitation was promising start to winter.

- d. January not quite as warm but precipitation was at 33 percent of normal. Mix of daily high and low temperature departures. 38th driest and 17th warmest. Observed precipitation eastern Pima County received rain, little measurable rain in west.
 - e. February not quite as warm but dry, 24 percent of normal precipitation at the Tucson Airport. Daily high temperatures increased. Observed precipitation central Pima County received more rain, departure from normal eastern Pima County below normal.
 - f. Review of drought maps. Not much change across the state from winter season. Much improved in comparison to last winter season. Drought will persist or worsen, March through May. La Niña will continue into spring and transfer into neutral.
 - g. March has had no measurable precipitation but normal is very low. Already seeing drying conditions, some weather systems expected but will not produce enough to change dryness.
 - h. Colorado River Basin, Lower Basin falling below normal precipitation, Upper Basin doing better than last year. Lake Powell is forecast to receive 69 percent of average inflow as of March 1st water supply forecast.
 - i. Discussion. Drought maps did improve because of summer monsoon, helped soil moisture and improved overall but below normal and not a great winter. Consistent with La Niña winter pattern.
5. Central Arizona Project and Colorado River Report – Mitch Basefsky, CAP
- a. Lakes Mead and Powell, less than 34 percent and at 25 percent full, respectively. System content less than 30 percent.
 - b. Powell elevation governs how much water is released to Mead. Unless a big storm event happens release will still be at 7.48 million acre feet. Better than projected release next year of 7.0 MAF. The 10 percentile or Minimum probable does not reach Minimum power pool, even in bad scenario will stay above 3,490' and generate power.
 - c. Mead elevation stays within Tier 1 in 2022 and most probably in 2023 but looks to drop into Tier 2a or 2b in 2024. Advantage of Tier 2b is California begins leaving water in Lake Mead.
 - d. Snow water equivalent to date, good snow accumulation through December but stalled and will have to see significant snow accumulation to return to normal or it will be a bad runoff year. Last back to back La Niña years did have better snow than this year.
 - e. Review of the CRMMS bar graph replacing table, product of CRBFC rather than BOR. From 2023 to 2026, the chance of remaining in Tier 1 decreases to less than 30% while the probability of declaring Tier 3 increases to 40%.
 - f. Arizona left 192,000 af in Lake Mead in 2019-2021. In 2022 Arizona is leaving 512,000 af as part of DCP contribution and additional volumes for 500+ Plan (Az contributing majority). By end of year, Az leaving over 400,000 af.
 - g. CAP University on infrastructure will be March 22nd
 - h. Discussion. Minimum, Most, Maximum Probable. 10, 50 and 90 percentiles, respectively. BOR runs 100's of traces on what likely input and output of system could be based on last 30 years and last 100 years' hydrology, there are 10 percent of traces below the 10 percentile Minimum Probable and 10 percent of traces above the 90 percentile Maximum Probable.
 - i. BOR takes into account some water pledged to conservation but not all, some portion may not be reflected in graph because contracts not signed. Elevations could be better than graph shows.
 - ii. CRMMS model more accurate over time than BOR model, 1-2 percent increase in accuracy impactful when dealing with 1-2' elevations changing to Tier 1, 2 or 3.

- iii. Key in the next few months is snowmelt and inflow, if warm spring it will increase evaporation and sublimation. The monsoon improved soil moisture but dry warm spring will cause sublimation. Need cold, snowy days.
6. Drought Updates
 - a. Erin Saffell, State climatologist shared statewide precipitation for the year, 3.92", below 4.10" normal.
 - b. Marie Light, PCDEQ: Excellent rain events in December helped PCDEQ collect four of five winter storm samples. Their goal is to collect five samples.
 - c. Némesis Ortiz-Declet reported ADWR opens its doors to public April 4th. Will continue hybrid meetings.
 7. Adjournment and next meeting is May 11- Don Faulk, UA How wildfire is contingent on winter and monsoon precipitation. Notes and presentation materials will be posted on the [LDIG Website](#).
 8. Remaining meetings 2022 dates: via Teams until further notice: May 11, July 13, September 14 and November 9