

PIMA COUNTY LOCAL DROUGHT IMPACT GROUP

Wednesday, January 10, 2018

Recap

Attendance: Kathy Chavez (OSC), Mitch Basefesky (CAP), Erin Boyle (NWS), Chris Magirl (USGS)

1. Welcome & Introductions
2. Review November 8 LDIG meeting
3. ADWR Activities and Updates
 - a. Review Short-Term
 - i. November drought status shows all of Arizona in some stage of drought with $\frac{3}{4}$ in moderate drought and the remaining, in the northwest portion of the State, abnormally dry. It reflects virtually no rainfall since the conclusion of the summer monsoon season and the absence of the winter storm pattern that typically arrives in late October
 - ii. December drought status reflects worsening drought conditions throughout Arizona with most of the state experiencing moderate drought except for the northeast portion that is in severe drought. December was characterized by warmer than normal temperatures and lack of rain and snow. Persistent La Niña conditions portend warmer and drier conditions continuing into the winter months.
 - b. Interagency Coordination Group Meeting November 16 Recap – Agency reports from the State Climatologist, National Weather Service, Arizona Department of Water Resources, Salt River Project, Arizona Department of Forestry and Fire Management and Arizona Game and Fish describe continuing drought conditions and associated impacts. ICG recommended the Governor retain the Emergency Drought Declaration. ADWR will finalize the 2017 Arizona Drought Annual Report and forward it to the Governor along with the recommendation to retain the Emergency Drought Declaration.
 - c. Feedback on SPI-SPEI indices – In response to a request from ADWR input was sought and forwarded from PAG and PCDEQ
 - d. ADWR will hold a meeting of the Monitoring Technical Committee on January 24. Details are available on the ADWR website
4. Drought and Climate Change Implications Report – With Pima County’s Drought Response Plan in place for over 10 years, the *Drought and Climate Change Implications Report* was prepared by staff to review the status of drought in Pima County, Arizona and Western States, review local drought impacts and document actions Pima County is taking to cope with ongoing drought conditions. Key conclusions of the report are:
 - a. Temperature and Precipitation – Pima County has experienced above average temperatures, especially in the last five years. 2016, 2015 and 2014 were the warmest three-year period on record. Three of the last five years have recorded drier than normal precipitation
 - b. Drought Status – Based on the U.S Drought Monitor, Pima County has continuously been in some form of drought, except for short, intermittent periods in January 2009 and in 2001. Drought severity has varied exceptional drought to abnormally dry. Western states have experienced continuous drought since 2000 as well.
 - c. Wildfire - Persistent drought conditions have increase wildfire severity. In 2017 there were 29 wildfires in Southeastern Arizona burning 180,000 acres.
 - d. Human health, agricultural losses and environmental impacts – In response to high temperature, the Health Department issued heat advisories and over 300 heat stress

incidences requiring emergency room treatment occurred. Between 1995 and 2014, Pima County farmers and ranchers received \$5.7 million in federal disaster-related assistance due to drought damages on crops and livestock. PAG has reported decreased stream flow and declining groundwater levels affecting riparian areas such as Cienega Creek.

- e. In response to drought, Pima County has taken a number of drought-related actions:
 - i. Approval of the Office of Emergency Management's Joint Multi-jurisdictional Hazard Mitigation Plan includes drought, along with flood, heat, wildfire and wind hazards
 - ii. The Health Department's collaboration to educate the public on heat safety
 - iii. Participation in Reclamation's Lower Santa Cruz River Basin Study to evaluate the impacts of climate on water supply and demands and develop adaptation strategies
 - iv. Launch of the Santa Cruz River Management Plan to manage water resources and balance uses of the river
 - v. Increase effluent recharge and other water resource activities
5. Ecological Drought – Reference to the *Ecological Drought in the Southwest United States* document prepared at the Southwest Climate Science Center Workshop in March 2017. It presents a concise summary of drought impacts to water resiliency, public lands, streamflows and wildfires. It describes the impacts of meteorological drought, agricultural drought, hydrological drought and ecological drought. A copy will be included in the LDIG website
6. Updates
- a. Mitch Basefsky, CAP, reported the CAP system is 20-45% of normal and there is cause for concern. The Green River Basin, which provides water to the front range, is doing well, but all other basins have below normal snowpack. 2002 was the worst year for the Colorado Basin receiving only 20% of normal snowpack. Lake Powell is 20 feet above last years level and a nine million acre-foot release is expected. Although there is no shortage projected in 2019, there is more uncertainty for 2020.

The intentionally created surplus (ICS) in Lake Mead contributed by California, Arizona, Nevada and Mexico has improved the outlook for averting a shortage. Were it not for ICS, Lake Mead levels would be at or near shortage conditions. The recent focus has been on approval of Minute 323 to the Treaty with Mexico in which Mexico agrees to leave some of its Colorado River entitlement in Lake Mead. California is considering its options of whether to take shortages, depending on deliveries from Northern California.

The 2007 interim guidelines establishing a three-tier shortage expires in 2027 and mandatory renegotiation of the agreement will begin in 2020. If the drought contingency plan is not in place by 2019, then California will wait for renegotiation of the interim guidelines agreement. Arizona is already leaving 420,000 acre-feet of its Colorado River entitlement in Lake Mead to shore up the lake levels. If a shortage is declared, it will affect delivery of excess water and agricultural irrigation pool water. Although ADWR is interested in negotiating with cities, tribes and agriculture for drought contingency and recovery planning for Colorado River water delivered in the CAP canal, State law gives this authority to the CAWCD. The recent audit of CAWCD was favorable.

There will likely be no major legislation affecting CAWCD this year. Legislation affecting groundwater will likely include changes to the phase out of extinguishment credits in Pinal County. The 2025 sunset for effluent recharge credits will likely be repealed.

- b. Erin Boyle, National Weather Service, reported the long-term outlook is for above average temperatures. The current La Niña conditions typically result in below average precipitation. There are equal chances for above or below average precipitation in the spring when the El Niño Southern Oscillation conditions return to neutral. Mark Singer will be heading the Tucson office replacing Mike Cantor who transferred to Boise, ID
 - c. Chris Magirl, USGS, reported Sabino Canyon has had no flow for 112 days as of last week. This is the fifth longest period of no flow. The second longest dry spell is 122 days and the longest dry spell is 165 days.
 - d. Mitch Basefsky, CAP, also reported Tucson Water recently reported potable water demand has increased five percent and reclaimed water demand has increased three percent. He recommended a presentation from Tucson Water on water demand trends for a later LDIG meeting. An additional recommendation was for a representative from the Colorado River Basin Forecasting Center to present May 9. Erin Boyle will contact the center.
7. Adjournment and next meeting – March 14 and will include a review of the winter season and Colorado River Basin.