

Executive Summary of the “Vulnerability, Consequences, and Adaptation Planning Scenarios” (VCAPS) for the City of Cortez, 2018

In October of 2018, the City of Cortez participated in an activity organized by Western Water Assessment designed to facilitate the City’s desire to increase awareness of the impacts of weather and climate hazards (called VCAPS for short) on the local water supply. Drought was identified as the key hazard of concern for the City, particularly in relationship to water supply management. Long term water supply management is a critical issue for meeting and sustaining the livelihood of the residents of Cortez.

Western Water Assessment (WWA) Staff presented climate data to the Cortez participants in the assessment. Cortez is dependent on the Dolores River and McPhee reservoir for its water supply. The water is transported from McPhee reservoir to the Cortez water treatment plant. WWA provided an overview of the water budget for Cortez. Annual precipitation in Montezuma County has fluctuated widely from year to year, and since 1900 has experienced smaller downward shifts from decade to decade. Since 2000 precipitation is 7% lower than the 20th century average, with 2018 precipitation the lowest on record. In addition, temperatures have increased, primarily since the beginning of the 21st century. Four of the five warmest years on record have occurred since 2000.

Warming temperatures and decreased precipitation have combined to result in lower snow packs and stream flows, earlier snowmelt and runoff, and drier soil in the summer. This means there is the potential for less water to be available in storage during spring runoff for diversion during the water year. Data suggests that temperatures will continue to increase, and precipitation will decrease, resulting in less available water in the future.

Participants examined two drought scenarios:

1. Drought Scenario 1: Current, i.e., 2018 Severe Drought
2. Drought Scenario 2: Regional drought triggering a Compact Call on the Colorado River

Several themes were discussed under a severe drought scenario:

- Reduced water supply
- Water treatment concerns
- Water conservation focused on residential water use
- Water conservation focused on irrigation of City properties
- Declining City aesthetics
- Increased wildfire
- Impacts to the agricultural community

Under the Compact Call on the Colorado River scenario, water insecurity was the main theme that was discussed. For both scenarios, water law was a cross cutting theme that limits and complicates how we address water usage locally.

Under each of the above themes that were analyzed, staff identified management concerns, climate stressors, outcomes, consequences and complicating factors. Lastly, participants generated a list of

future action items that might be considered to prepare for drought and reduced water supplies in the future.

Next Steps:

- Maintain the momentum started by this workshop with future meetings to move drought planning forward.
- Develop a list of priorities and check off completed items to track progress as the group moves forward with a plan.
- Take immediate action to develop a public information campaign.
- Reach out to stakeholder groups to increase awareness around drought.
- Change community expectations of green space and encourage xeriscaping.
- Explore options for advocacy on state water law and secure legal advice on the implications for the City of a Compact Call.
- Work with City department heads to ensure all staff are aware of drought planning efforts.
- Work collaboratively to be successful.
- Integrate conservation into the Comprehensive Plan, Land Use Code, and other city guiding documents, policies, requirements and regulations.

The entire process provided an important framework within which participants could contemplate how to address drought for the City of Cortez. Most importantly, participants were able to identify actions that form a road map for addressing the impacts of changing weather and climate on the City's very important water supply.

For more information, see the complete report located at: <http://www.cityofcortez.com/236/Water-Conservation>