Drought Resiliency and Preparedness Update
Colorado River Shortage Awareness, 500+ Plan

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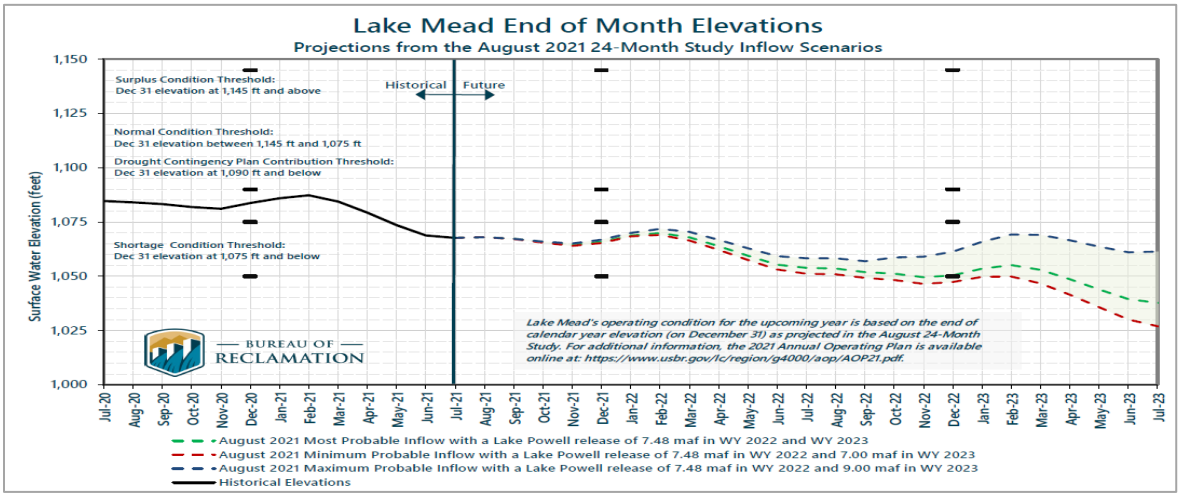
Municipal Utilities provides drought resiliency and preparedness updates in the form of City Council Weekly Information Updates and graphical information fact sheets. These updates contain information pertaining to ongoing drought conditions in the Southwestern United States, impacts of drought on water supplies and Tempe's response to these conditions. Information regarding ongoing drought and shortage on the Colorado River is available in previous updates and fact sheets at www.tempe.gov/water. This update focuses on proposed actions associated with the Lake Mead 1,030 Feet Trigger Consultation and Tempe's participation in creating voluntary, compensated conservation storage in Lake Mead.

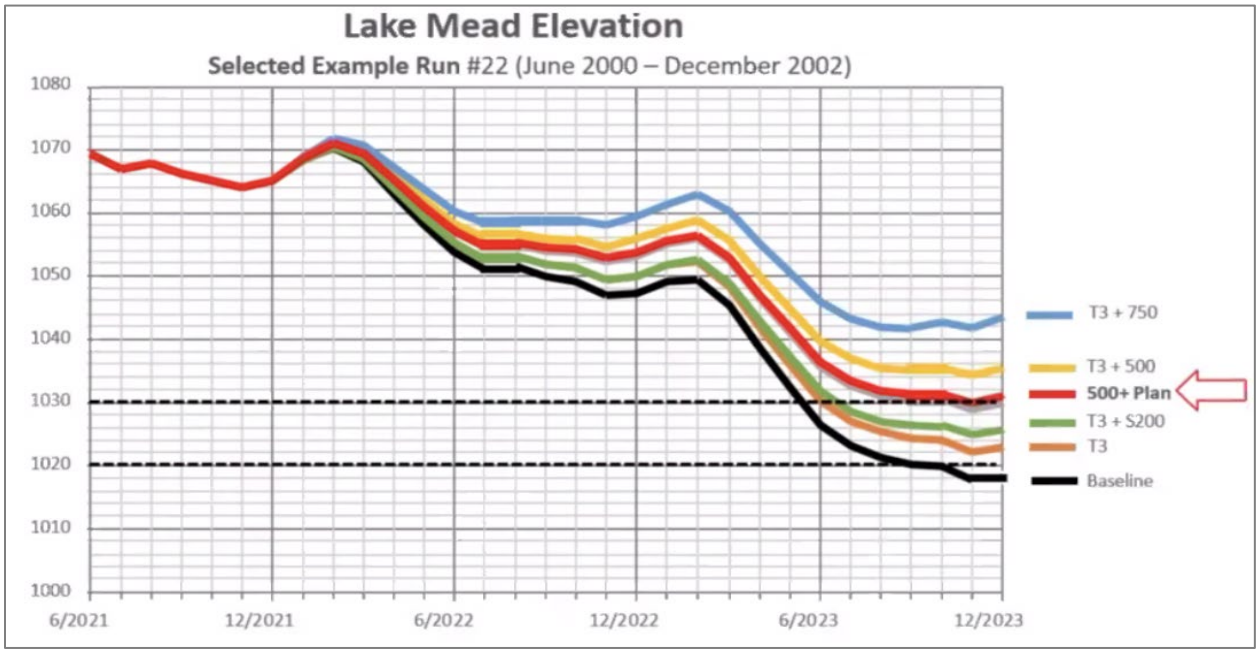
The United States Bureau of Reclamation (USBOR) conducts monthly data modeling to forecast the surface elevation level of Lakes Mead and Powell for the next two years. The results of this modeling are called the "Monthly 24-Month Studies" and are used by the USBOR to indicate a future shortage and guide the operation of the Colorado River. The results of the August 2021, Lake Mead 24-Month Study projected that the surface elevation level of Lake Mead will fall below the Drought Contingency Plan (DCP) Tier 1 level of 1,075 feet in January 2022, at which time a Tier 1 Shortage on the Colorado River will be declared.



This shortage results in a 30 percent reduction to Arizona's Central Arizona Project (CAP) supply. The DCP Implementation Plan for Arizona provides resources to allow for CAP users, such as Tempe, to receive their full allocation of water in 2022, which will result in no reduction to Tempe's water supply.

While the potential reduction of available CAP water is concerning, there are larger regional concerns with the continued decline of water levels at Lakes Mead and Powell. Specifically, to levels below the point of the lakes' critical surface elevation, which could impact the ability to generate power and deliver water from dams to downstream users. To prevent Lake Mead from reaching it's critical surface elevation of 1,020 feet, DCP agreements require stakeholders in lower Colorado River Basin states (Arizona, Nevada and California) to discuss potential actions, in addition to those prescribed in the DCP, when the Monthly 24-Month Study projects the level of Lake Mead at or below 1,030 feet. In the August 2021, 24-Month Study, Lake Mead is projected to reach this level in 2023, thus initiating a process called the 1,030 Feet Trigger Consultation.

Since August 2021, the Lower Basin States, CAP and the USBOR have been conducting modeling to develop a plan to maintain Lake Mead above 1,030 feet, through at least 2026. In November 2021, the 1,030 Feet Trigger Consultation Team announced a voluntary, compensated conservation plan in an effort to address this challenge.



Modeling predicts that if 500,000 acre-feet (af) of new conservation is created in Lake Mead each year, i.e., water is left in the lake, this will prevent the lake from reaching the critical level of 1,020 feet in 2022 and 2023 and, if sustained each year, will maintain the lake elevation above this level throughout the five-year period extending to 2026. This, combined with an effort to raise $100,000,000 each year to support conservation efforts, has been titled the "500+ Plan".

Arizona's portion of the proposed 500,000 af of conservation in Lake Mead will be 223,000 af, of which 193,000 af will be coming from CAP. The 2022 proposed conservation will be created from many sources in central Arizona, including Native

American Tribes and Salt River Project, but 93,000 af will come directly from CAP users, including the City of Tempe. In Arizona, there are more than 80 individual contract holders who utilize Arizona's total allotment of Colorado River water. Therefore, creating the required conservation cannot be borne by a single contract holder but rather must be an effort shared by many CAP customers. Even though Tempe's CAP contract is smaller than many other municipal water providers, this effort will require as much participation as possible, from all users, to be successful. Tempe is fortunate to have numerous water supply sources available to meet the demands of the water service area. Some of these sources can be utilized interchangeably to temporarily make up for water that will be conserved in Lake Mead.

While participation in the 500+ Plan will have associated costs and involve additional agreements, the effort is necessary to mitigate near-term shortage conditions on the Colorado River. It may also forestall future shortage conditions, which would result in more drastic costs and challenges if action is not taken now. Based on these factors, Tempe intends to participate in the 500+ Plan by potentially forgoing a portion of its annual CAP allotment in 2022, and potentially contributing more in 2023.

Although reduction in the water supply associated with participation in the 500+ Plan is voluntary, this situation presents an opportunity to raise awareness of drought conditions and encourages additional voluntary conservation by other water users. Municipal Utilities maintains a Drought Preparedness Plan (DPP) to ensure that strategies are in place to predict, prepare for and react to shortages, and continue to meet the demands of Tempe's water service area now and into the future. While Tempe is not currently in a position where protocols of the DPP need to be enacted, staff is continuously evaluating criteria that may necessitate implementing Stage 0 - Watch. Demand management strategies described in the DPP range from heightened awareness and communication of drought conditions to enacting specific measures to decrease demand. Responses described in the DPP are designed as a suite of strategies that can be implemented to meet the needs of each unique situation, and applied across many customer types, to ensure Tempe maintains the ability to provide water for as much demand as possible, regardless of the magnitude of a shortage or future supply challenges.