

## How the Cities Have Prepared for a Tier 1 Shortage

We live in the desert, so extreme heat, limited precipitation, and stressed water supplies can be expected. That is why the cities plan decades in advance, enabling us to weather times of prolonged drought and face shortages with confidence. These proactive measures and long-term planning efforts in our arid State ensure reliable water supplies during times of drought and have prepared us for many scenarios, including shortage on the Colorado River. However, often when we talk about planning and being prepared, some may wonder what that entails.



Fundamental ways that the AMWUA cities have prepared is by investing in diverse and reliable water supplies, funding infrastructure, water reuse, underground storage, working collaboratively to establish a conservation ethic in the Valley, building drought and shortage preparedness plans, and supporting the adoption of the Drought Contingency Plan (DCP) in 2019. These extensive efforts are all part of their continual planning process. After all, the cities don't plan just for next year; they prepare for the next decade and more. These preparations strengthen our resiliency, especially during challenging times.

Here is a more detailed look at these crucial elements of their long-term planning efforts.

### Diverse and Reliable Water Supplies

Here in the Valley, the water we utilize is not just from the Colorado River, which represents only a portion of your city's water portfolio. The AMWUA cities also utilize water from the Salt and Verde Rivers, reclaimed water, and a small percentage of groundwater. By investing in and protecting their rights to these multiple water supplies, the cities are better prepared for the long-term and any short-term challenges that may arise. As we plan for a drier future, the AMWUA cities will continue wise water stewardship by investing, protecting, and enhancing our water supplies, ensuring viability into the future. Having [more than one water source](#) allows for a more robust economy for the Valley and a more sustainable way of life for all of us here in the desert.

### Critical Infrastructure

To ensure safe and clean water reaches households, industries, and businesses in this Valley, cities must have the infrastructure to treat and deliver water daily. Of all infrastructure types, water systems are the most fundamental to life. That is why infrastructure is a continual priority for the AMWUA cities and all water providers. This includes making the financial commitment to invest in the maintenance, replacement, and expansion of their water infrastructure. The collective [infrastructure](#) of the AMWUA cities consists of 30 water

treatment plants, over 18,000 miles of water lines, 142,000 fire hydrants, and more than one million water meters. All of which highlights the extent of the infrastructure needed to deliver water every single day.

### **Water Reuse and Underground Storage**

All water is important, so cities have been maximizing the use of [recycled water](#) for decades by putting the vast majority to beneficial use for energy production, creating riparian habitats, irrigating sports fields, golf courses, non-edible crops, commercial landscapes, and recharging aquifers by [storing water underground](#) for use during a shortage.

Over the past two decades or so, the AMWUA cities have also collectively invested hundreds of millions of dollars in storing over 2.5 million acre-feet of water underground to be used in the future to supplement drought-caused shortages. That's enough water to meet the ten AMWUA municipalities' needs for more than two years, which would never be used up that quickly because of our water supplies' diversity. Underground storage is an innovative water management program involving long-term collaborative planning that is an important component of preparing for the future.

### **Conservation Ethic**

While the AMWUA cities have a robust and diverse water supply, there is never enough to waste. Our collective commitment to conservation increases our resiliency during extended periods of drought and in times of shortage. That is why cities have invested in programs and resources to help residents and businesses use water more efficiently. That strong water conservation ethic has [helped us avoid needing to impose water restrictions](#) during this time of prolonged drought and in the face of shortage. And despite growth in population and business, our overall water use among the AMWUA cities has remained relatively the same, highlighting the impact of conservation and efficiency. After all, being responsible with the water we have is up to each of us, so it is essential that we collectively continue to build upon the [conservation ethic](#) we have created here in the Valley.

### **Drought and Shortage Preparedness Plans**

Each city has a unique drought and shortage preparedness plan to address and manage various scenarios. The State has required Drought Preparedness Plans for well over a decade. These plans are unique to ensure each city is best prepared based on its specific water resources, infrastructure, and customer needs. This level of planning ensures cities can effectively manage their water supplies despite any short-term or long-term challenges that may arise. A Colorado River shortage is just one of many scenarios the cities have planned for.

### **Drought Contingency Plan (DCP):**

In addition to the efforts within each city to manage our water supplies, the AMWUA cities are also engaged in supporting the efforts at the State and regional levels. For example, the AMWUA cities supported implementing the [2019 Lower Basin Drought Contingency Plan \(DCP\)](#), pulled together by Arizona, California, Nevada, the U.S. Bureau of Reclamation, and Mexico when all parties agreed to take less water from the River to protect its overall health. DCP is a

plan to keep Lake Mead from reaching dangerously low levels until at least through 2026. A plan that is currently being carried out. As the Colorado River Basin sees historically low inflows, DCP has proven to slow the declining water levels in Lake Mead and has kept us out of shortage until this point and gave us additional time to prepare.

We recognize the conditions on the Colorado River are serious and evolving. Fortunately, the AMWUA cities, their water managers, and citizens understand the significance of the situation and have prepared appropriately to face the shortage with confidence. And moving forward, extensive planning efforts and conservation will continue to be a priority because the work to meet the water needs of residents and businesses never ends.

*For over 50 years, the Arizona Municipal Water Users Association has worked to protect our member cities' ability to provide assured, safe, and sustainable water supplies to their communities. For more water information, visit [www.amwua.org](http://www.amwua.org).*