

AEG 2022 – Keynote Speaker – Abstract

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SOUTHERN NEVADA DOUBLES DOWN ON WATER CONSERVATION

In the past 100 years since the Colorado River Compact was signed, the Colorado River Basin has seen many changes: dams, environmental protections, human impact, periods of high flows and decades-long drought. Among its most remarkable, a decades-long megadrought affecting snowfall and runoff has resulted in significant water level declines at major system reservoirs, including Lake Mead and Lake Powell. For the seven U.S. states who depend on this river for municipal supplies and agricultural demands, these drought conditions present a looming threat to their economies, landscapes, and livelihoods.

The elevation of Lake Mead – the United States' largest reservoir - has dropped by nearly 170 feet since 2000, prompting the Secretary of the Interior to make the first-ever shortage declaration. The risk of shortage remains high in future years and the federal government is projecting a high probability that Lake Mead water levels will continue to decline. While the ongoing work of federal, state and municipal water partners have helped to slow the decline of Lake Mead water levels, the Basin is reaching a critical point that requires more work and difficult decisions.

As river partnerships continue, the Southern Nevada Water Authority (SNWA), the region's wholesale water provider, and its member agencies have taken several adaptive management steps to reduce the impacts of drought and climate change on water supplies and facilities through new infrastructure, additional water resources and aggressive water conservation.

Over the past two decades, the SNWA has established one of the nation's most comprehensive water conservation programs, and these efforts have been effective. While Southern Nevada boasts an impressive conservation scorecard, more must be done. Additional efforts are needed to ensure a reliable long-term water supply for Southern Nevada and several new water efficiency measures have either been adopted or are being considered by the SNWA to join its already impressive arsenal of conservation initiatives.

Beyond water demands, Southern Nevada has also invested heavily into its infrastructure to help secure access to its water supply, which is nearly all stored behind Hoover Dam in Lake Mead. Over the past decade, more than \$1.6 billion of infrastructure has been constructed to combat drought, notably a 3-mile new intake under Lake Mead and an adjacent Low Lake Level Pumping Station.

The Las Vegas Valley continues to grow and support a robust economy and a population nearing 2.5 million people. To meet the increasing stress that drought, aridification and climate change place on dwindling Colorado River supplies, the community is reshaping how it grows and adapts.