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The Status of Colorado River Drought Conditions and Response Measures

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Chairman Huffman, Ranking Member Bentz, Representative Napolitano and members of the subcommittee, thank you for the invitation to speak today about Colorado River drought conditions. My name is John Entsminger and I serve as General Manager of the Southern Nevada Water Authority and as the lead representative for the state of Nevada regarding Colorado River issues.

The Seven Basin States and the federal government enacted the Interim Guidelines in the early 2000s as Colorado River drought conditions began to materialize. As conditions worsened, we worked to identify and implement additional actions. From new policies and collaborative agreements to joint investments in new technology, we continue to maintain a singular goal: to keep more water in the system and avoid the potential for water and power supply disruptions.

Nevada and Arizona made our first Drought Contingency Plan (DCP) water contributions in 2020. The Lower Basin states will make additional contributions in 2021. And, next year—with Lake Mead water levels projected to decline below elevation 1,075— we will take our first ever shortage reductions. These and other actions have helped to reduce Lake Mead water level declines by more than 50 feet. Gratefully, Congress has appropriated federal funding for DCP-related project activities. In addition, there is $300 million for DCP activities included in the Infrastructure Investment and Jobs Act, which is currently under consideration by Congress.

Despite these efforts, Lake Mead water levels continue to decline. Preliminary observed unregulated inflow to Lake Powell was 33 percent of normal last year, the second worst year on record. Day-by-day and year-by-year we inch closer to critical elevations. According to the Bureau's latest modeling, we could be sitting in a third-tier shortage by 2025. This means the Lower Basin will be taking its deepest defined cuts under existing agreements, totaling 1.1 million acre-feet of water per year from US users and an additional 0.275 acre-feet from Mexico. Barring multiple successive years of normal or near normal hydrology, which is unlikely, conditions will continue to deteriorate. Like you, we have come to recognize that currently required reductions are not a long-term solution—they are simply one of many steps needed to avert risk for a few more years.

The math problem we face is quite simple. If we rely on the promises of the 1920s and 1940s, there are legal entitlements to use 17.5 million acre-feet of water each year. Today, use is approximately 14.0 million acre-feet per year. Over the last 20 years, the river has given us an average of 12.3 million acre-feet per year. Despite the fervent warnings from internationally renowned scientists like Jonathan Overpeck and Brad Udall that urge us to plan for a future with even less than 12.3 million acre-feet, the river community is far from consensus about how dry of a future to plan for. And, while this panel was asked to talk about drought, on-the-ground evidence suggests the Colorado River basin is not experiencing drought but aridification – a <u>permanent</u> transition to a drier future. If we are to build upon the river's many successes over the last 25 years, we must confront the magnitude of the challenge in front of us and quickly reach agreement on what future scenario we're willing to plan for.

Defining the problem is only the first step. We must develop additional supplies, pursue aggressive conservation, and make investments in technologies and tools that show promise helping us do both. It is well known that agriculture uses approximately 80 percent of the river's flow. The remaining goes to municipal users. As we have learned from supply chain disruptions over the last 18 months, agricultural and urban sectors must work together to reduce water use while also ensuring

both food security and the health and safety of our urban populations. To this end, several municipalities embarked on a new collaboration just this fall to research irrigation technology that can decrease consumptives uses while maintaining crop productivity. In Arizona, drip irrigated alfalfa projects are currently being tested. But the learning is slow and calculated, and the pace of engagement between urban and agricultural water users must be accelerated if we are to tackle the daunting challenge of updating the guidelines and agreements for future river operations.

As we work on our long-term goals, we must also recognize that additional water use reductions over and above the 2007 shortage and DCP contributions are necessary. The drought contingency plans envisioned taking additional actions to protect a Lake Mead elevation of 1,030 feet, an elevation that Reclamation projects could be reached before the end of 2023. As that likelihood becomes ever more probable, the only near-term management strategy is reducing use. As I've previously shared, we have invested billions of dollars in water conservation and infrastructure. And, each week, we review analysis of additional programs and water savings opportunities. But Nevada represents a mere 1.8 percent of the water allocated on the river. You could evacuate Las Vegas tomorrow and the river's math problem would not be improved in any meaningful way. Our best hope is that continual water efficiency becomes a commonplace philosophy throughout the west.

As you know, Southern Nevada is unique when it comes to reuse and recycling. We collect and treat nearly every drop of Colorado River water used indoors and return that water to Lake Mead for return-flow credits. This extends the availability of our overall supplies by more than 75 percent.

At least locally, there is little more we can do to extend our reuse potential. That is why we began working with the Metropolitan Water District of Southern California (Metropolitan) to explore participation in their Regional Recycled Water Advanced Purification Center project. The project represents a long-term supply option for our community. To this end, we continue to urge passage of

the Large Scale Water Recycling Project Investment Act, which authorizes a *new* grant program for projects that provide substantial water supply and other benefits to drought-stricken regions. The Infrastructure Investment and Jobs Act includes this important bill and provides $450 million for a large scale water recycling and reuse program. The House Natural Resources Committee proposed an additional $100 million for large scale water recycling projects as part of the Build Back Better Act. This funding is critically needed to help project stakeholders offset the costs to their communities for critical water infrastructure and help ensure the project can be completed when needed—which, frankly, is soon.

Our progress toward sustainable solutions depends on partnership and well-coordinated action by all. This necessitates using realistic views of future hydrologic risk and meaningful participation by a broader suite of water users. This river community is at a crossroads and has a simple but difficult decision to make: do we double down on the promises of last century and fight about water that simply isn't there or do we roll up our sleeves and deal with the climate realities of this century?

I'll be happy to answer any questions you might have. Thank you.