

Saving Water in

Nevada

Nevada is the driest state in the United States, with an average annual precipitation rate of 9.5 inches. The southern region of Nevada accounts for nearly three-quarters of the state's water demand and averages only four inches of precipitation per year. The region's water demands are projected to increase by 85 percent by 2065. Nevada's desert climate, growing population, and ongoing drought conditions stress the state's existing water supply, making water efficiency critical.

SOURCES OF WATER

- The Colorado River and other surface water sources provide nearly 70 percent of Nevada's total water supply. A series of federally constructed reservoirs divert water to the seven states sharing water from the Colorado River. Nevada is allocated the smallest share, which is 1.8 percent of the total apportionments. Ground water provides the remaining 30 percent of Nevada's water supply.
- Southern Nevada receives 90 percent of its water supply from the Colorado River, accounting for the bulk of Nevada's statewide allocation. The region draws the river's water from Lake Mead, created following completion of the Hoover Dam in 1935.
- Most of Nevada's rivers are perennial and small, fed by snowmelt on the western slope of the Rocky Mountains, which has been declining due to drought conditions since 2000.

SUPPLY ISSUES

- Due to drought conditions that the Colorado River Basin has experienced since 2000, the water level of Lake Mead had dropped 130 feet as of early 2016, or to about 40 percent of its storage capacity. As water levels continue to drop, so does the amount of Colorado River water available to Nevada and Arizona.
- If drought conditions persist and reservoir levels continue to decline, Lake Mead's water levels are forecasted to drop below 1,000 feet before 2025. The existing intakes and pumping stations can only draw water from Lake Mead for the public supply when water levels are above 1,000 feet. To avert significant impacts and costs, the Southern Nevada



2012



2014

Drought conditions have caused water levels in Nevada's Lake Mead to decline, as seen by the changes highlighted above between 2012 and 2014. (Source: SNWA Water Resource Plan, 2015)

Water Authority (SNWA) built a new intake tunnel in 2015 and started construction on a new pumping station that will allow it to draw water down to elevations of 875 feet, approximately 20 feet below the elevation at which the Hoover Dam can continue to release water downstream.

- Nevada's population has been growing at a rate of 25 percent or more for the past three decades.

The state's 2010 population of 2.7 million is projected to increase to 3.3 million by 2030.

- By 2060, as a result of increased population and potential drought conditions, the Colorado River Basin's water demand could exceed supply by an estimated 3.2 million acre-feet, which is more than 1.0 trillion gallons per year.

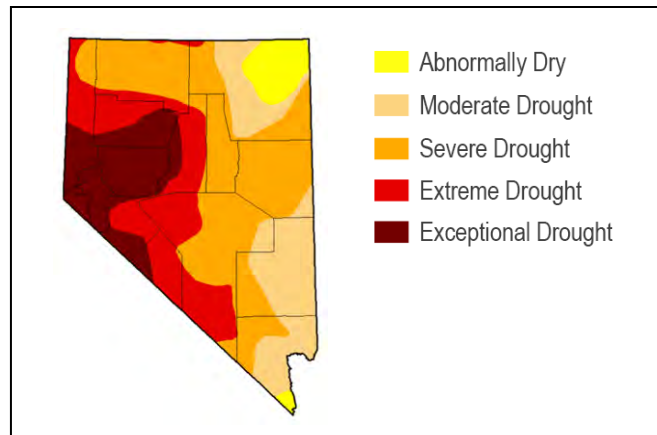
WATER USE CONCERNS

- In 2014, Southern Nevada's gross water demand was about 205 gallons per capita per day (GPCD). In the region, single- and multi-family households account for 60 percent of water consumption—70 percent of which is used for landscaping. While per capita consumption has decreased from 314 GPCD in 2003 to 205 in 2014, the region's goal is to further reduce GPCD to 199 by 2035.
- In 2015, the governor established a Nevada Drought Forum of local water municipalities, state government leaders, higher education representatives, and climate experts to focus on statewide drought policy, management, and preparedness.

WHAT ARE NEVADANS DOING TO SAVE WATER?

Many Nevada agencies and utilities belong to WaterSense®, the U.S. Environmental Protection Agency program that offers people a simple way to identify products and homes that use less water and perform well.

- SNWA has undertaken significant efforts to promote water conservation and manage regional water resources. SNWA worked to decrease Colorado River water consumption by 32 billion gallons between 2002 and 2014, despite the addition of 520,000 people during those years, for a per capita



As of October 2015, more than 76 percent of the state was experiencing severe to exceptional drought conditions. (Source: U.S. Drought Monitor)

water use reduction of 40 percent. Following are just two of SNWA's initiatives:

- SNWA's Water Smart Landscape Rebate program replaced nearly 174 million square feet of ornamental lawns with water-efficient trees, native plants, and low-volume irrigation systems. An average of 3.4 billion gallons of water were saved annually through this program, reaching an estimated 88 billion gallons since the program's inception in 1989.
- In homes and businesses, SNWA promotes WaterSense labeled products. Its Water Efficient Technologies (WET) program has saved 1.4 billion gallons of water annually through businesses, and its Water Smart Home program for new construction has saved 900 million gallons of water annually.

For more information about water use and saving in Nevada, visit drought.nv.gov and www.snwa.com.

References available by request. Contact watersense@epa.gov for additional information.