

# Nevada Water Fact Sheet

**N**evada is a state defined by contrasts. With mountain lakes and arid scrublands, cattle ranches and extreme sports, Nevada represents the vast array of opportunities offered by the American West. From the pristine wilderness near Lake Tahoe to the world-class shows in Las Vegas, Nevada also enjoys a booming tourism industry. Although Las Vegas has become an oasis of economic prosperity in the desert, the entire Silver State has also come to typify the nation's increasingly urgent need to protect its diminishing water resources.



The Sierra Nevada Mountains in northern Nevada can receive up to 40 inches of precipitation each year, but southern Nevada averages less than five inches of rain annually. Las Vegas rests in this desert region where temperatures frequently exceed 100 degrees. Varied rainfall, paired with a growing population, arid climate, and ongoing drought conditions, stress the state's existing water supply. With Nevada's 2020 water demand expected to increase by 39 percent compared to demand in 2000, using water efficiently is more important than ever.

## Growth Challenges

According to the U.S. Census Bureau, Nevada has been one of the nation's fastest-growing states, with population increasing 28.4 percent between 2000 and 2007 to 2.5 million people. If current trends continue, Nevada will have 4.3 million residents by 2030. The Las Vegas metro-

politan area has nearly 2 million residents and hosts as many as 40 million visitors annually. This population boom strains natural resources and poses challenges to the state's water infrastructure. In a part of the nation where water resources are already scant, drought and population growth present a formidable challenge.

Though a limited resource, surface water sources provide nearly 70 percent of Nevada's total water supply. Although Nevada gets the smallest share of Colorado River water—just 1.8 percent—it constitutes 90 percent of the water supply for the Las Vegas region. Las Vegas draws its Colorado River water directly from Lake Mead, the body of water created by the completion of the Hoover Dam in 1935. The availability of this resource is directly linked to the runoff from the spring and summer snowmelt on the western slope of the Rocky Mountains, which has been declining due to drought in recent years.

Ground water provides the remainder of the water supply used in Nevada and in some areas provides the entire supply. In Las Vegas, ground-water pumping occurs primarily in the summer months as a supplement to meet peak water use demands. With the surface water resources in Nevada allocated to serving existing demands, future needs must rely on extended development of sustainable groundwater sources, reallocation of surface water supplies, and increased water efficiency.

## Looking to the Future

Nevada officials have evaluated existing water sources and developed various water plans and strategies to prepare for the state's increasing population and the potential effects of climate change and prolonged drought. With water sources in short supply, Nevada is setting its sights on conservation, water reuse projects, and infrastructure upgrades. The Southern Nevada Water Authority (SNWA), for example, works closely with seven agencies in the Las Vegas region to adopt water-efficiency policies for new development, regulations prohibiting the waste of water, and rebate programs that help existing customers to decrease water demand. The SNWA's most successful rebate program has replaced nearly 150 million square feet of ornamental lawns with water-efficient trees and plantings and low-volume irrigation systems, saving an estimated 8 billion gallons annually. Indoors, the SNWA promotes WaterSense® labeled products for both new construction and retrofit projects.

Through a number of such conservation measures, southern Nevada's annual water consumption decreased by nearly 26 billion gallons between 2002 and 2009, despite a population increase of 400,000 and approximately 40 million annual visitors.

One approach to supply water to Nevada's influx of residents is new infrastructure projects that will increase the available water sources.

SNWA is working on a new intake pipe to draw water from Lake Mead. This new intake, called the "third straw," ensures the community can continue to use Colorado River water even if the lake level continues to drop.

Nevada residents also help by using water more efficiently in their homes. For example, if every home in Nevada replaced older, inefficient showerheads with WaterSense labeled models, it could save more than 6 million gallons of water per day. That's enough water to fill the famous Bellagio Fountains in Las Vegas nearly 100 times a year. Additionally, it could save \$13 million in water bills and \$30 million in energy costs associated with heating water. For more information and water-saving tips, visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

## Lake Mead in Transition

Over the past decade, precipitation in the Rocky Mountain region has declined due to drought. This consistently drier weather has drastically affected the Colorado River and other surface water sources. Since 2000, the water level in Lake Mead has dropped more than 100 feet, a difference of about 5 trillion gallons.

To ensure the Hoover Dam continues to produce power and Nevada maintains access to its water supply, the seven states that depend upon the Colorado River have forged agreements to significantly reduce their water demands to protect the lake.

