Nevada

At A Glance

CRWUA

Colorado River Profile

Annual allotment of Colorado River water:
300,000 acre-feet

Percentage of allocation that is developed:
85 percent

State's population:
2.1 million

Population served by Colorado River water:
1.3 million

Percentage of contribution of Colorado River water to meeting state's needs:
9 percent

Colorado River area in state:
12,400 square miles

Average precipitation of state:
3 - 9 inches

Highest elevation:
Boundary Peak at 13,140 feet above sea level

Lowest point:
470 feet on the Colorado River

National forests:
2 (Toiyabe with 3.2 million acres and Humboldt with 2.5 million acres)

Nevada is the nation's seventh largest state, with more than 110,000 square miles of land. It also holds the distinction of being the driest state, with an average 9 inches of rainfall annually. Southern Nevada, where the state's major population center is concentrated in the Las Vegas Valley, receives a scant 4 inches average rainfall per year.

The state's large size combined with its small population makes it one of the least densely populated. Approximately 68 percent of the state's population reside in Clark County, located in southern Nevada. Major population centers in Northern Nevada are located along the eastern slope of the Sierra Nevadas. Northern communities such as Reno, state capital Carson City and Lake Tahoe make up over 20 percent of the state's population.

The federal government controls approximately 85 percent of the state's land. A few of the agencies responsible for the federal lands include: Bureau of Land Management, Forest Service, Department of Defense, Department of Energy, and Fish and Wildlife Service.

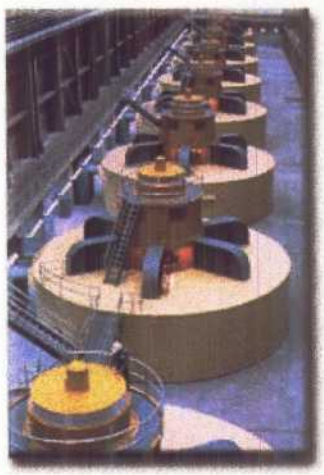
In spite of the state's unrivaled aridity, or perhaps because of it, water has played a pivotal role in its development. This has been especially true in Southern Nevada, where the Colorado River flows along 200 miles of the state's southern border.

The Las Vegas Valley was home to the Paiute Indians long before others came and settled. Bubbling artesian springs produced a swift stream of water flowing across the valley, making the area an oasis in the desert. A grassy meadow grew on each side of the stream, approximately a mile and a half wide and three miles long. This grassy meadow inspired a Spanish-speaking explorer to call the place Las Vegas (the meadows). It later became an important resting place on the Spanish Trail.

Mormon settlers started an agricultural settlement there in 1855, which failed after two years. It was not until the turn of the century, when the Union Pacific Railroad laid tracks through southern Nevada and designated Las Vegas as a water stop, that

the area began to grow.

The city continued to grow, with groundwater as its sole source of water. By the early 1930s, the first lawn-watering restrictions were in place, reflecting the limited water supply and the need to manage and protect the desert's most precious resource. The construction of Hoover (Boulder) Dam and the creation of Lake Mead allowed southern Nevada to reduce its dependence on groundwater and afforded an abundant water supply for what would become one of the fastest growing areas in the country.



It was not so much water, however, as hydro-generated electricity that Nevadans felt was critical at the time when the Boulder Canyon Project was being negotiated. For one thing, the slope of the land along the Colorado River made irrigation from the river appear almost impossible to the state's leaders. In fact, to this day, none of the Colorado River's water is used for agricultural purposes in southern Nevada.

Further, even the most fervently pro-growth members of Nevada's state and local governing bodies could not envision in the 1920s and 1930s that southern Nevada's population would ever grow to the magnitude where it could fully utilize 300,000 acre-feet of water from the Colorado. Accordingly, Nevada accepted without quarrel what was a minuscule allocation in comparison to the other six basin states, holding firm instead on its bargaining position for one-third of the electricity to be generated at Hoover Dam.

After the dam's completion in 1937, it produced 100 percent of Las Vegas' electricity until 1955, when the electric company had to construct its first supplemental combustion turbine.

Today Nevada remains one of the fastest-growing states in the nation. As a result, only 20 percent of the state's 2 million residents are native-born, the lowest percentage in the country. Nevada's economy is dominated by the service industry, which accounts for 42 percent of the state's employment. Not surprisingly, the hotel, gaming and recreation industries support two out of every three service-related jobs. Mining is also a major industry in Nevada, accounting for more than 10 percent of total employment in nine of the state's 15 counties.

Agricultural uses account for approximately 78 percent of statewide water use, with 13 percent going for domestic and commercial uses, 7 percent for mining, less than 1 percent for industrial use and 2 percent for power production. Southern

Nevada's water-use pattern is quite different however. Residential uses account for 65 percent of southern Nevada's water use, with 9 percent for irrigation of golf courses, parks, school grounds and other large turf areas, 13 percent for commercial uses and fire protection, and 7 percent for hotels.

The state's water law is based upon the Doctrine of Prior Appropriation -- the first to divert water and place it to beneficial use acquires the priority right to use the water. Beneficial uses of water include domestic, irrigation, stock-watering, mining, industrial, commercial, municipal and recreational uses.

Within the state, two interstate compacts govern surface water allocation. The California-Nevada Compact represents agreements between the two states over waters that rise in California and flow into Lake Tahoe and eventually into the Truckee, Carson and Walker rivers and Pyramid Lake. The Colorado River Compact and the many laws and public policies that make up the Law of the River govern 85 percent of southern Nevada water allocations. The State of Nevada created the Colorado River Commission in 1935 to safeguard and protect Nevada's allocation of Colorado River water and the electricity generated from Hoover Dam.

In order to manage their water resources more efficiently, the major water and wastewater agencies in southern Nevada established the Southern Nevada Water Authority in 1991. It is governed by a seven-member Board of Directors that represents its seven member agencies. The Authority has worked aggressively, in conjunction with the state's Colorado River Commission, to protect southern Nevada's allocation of Colorado River water. It also conducts research, negotiates for additional water resources to meet future demands, and operates the regional water treatment and delivery system that provides water to the major water purveyors. This treatment and delivery system is presently being expanded to more than double its capacity.

SNWA Member Agencies

- City of Boulder City
- City of Henderson
- City of Las Vegas
- City of North Las Vegas
- Las Vegas Valley Water District
- Big Bend Water District
- Clark County Sanitation District

The Authority has also implemented aggressive water conservation measures. The goal of its conservation program is

to change water-use habits in southern Nevada without causing an adverse impact on quality of life. The Authority's conservation plan has several key components: public education, free products and services, incentive programs and an inverted water rate structure to encourage conservation. The Authority works hand-in-hand with concerned citizens and media outlets to ensure that the community is aware of and committed to a significant conservation program.

Local governments have complemented the Authority's conservation programs by enacting water conservation ordinances and codes. In 1998, the City of Las Vegas enacted the first ordinance limiting the amount of turf grass that could be used in residential and commercial landscaping. Other local governments have followed suit. In 1999, the Authority reported that southern Nevada had achieved 16.8% conservation savings, equating to approximately 20.8 billion gallons of water saved. The goal is to achieve 25% conservation savings by the year 2010.

The Authority is currently working with federal, state, and local agencies to address water quality issues in the Las Vegas Wash. These issues have become much more important as the Las Vegas Valley's population has grown. A 28-member stakeholder group has been meeting since 1998 to develop and implement the Las Vegas Wash Comprehensive Adaptive Management Plan. This plan, which was formally adopted in January 2000, provides recommendations for addressing water quality issues in the Las Vegas Wash, Las Vegas Bay, and Lake Mead.

In 1987, the Las Vegas Valley Water District began an artificial recharge program by banking treated Colorado River water in the aquifer under the Las Vegas Valley. The program, which was transferred to the Southern Nevada Water Authority, injects water into the groundwater system in the winter months when demand is low, for future use or for use in the summer months when demand is high. The program has produced great results - approximately 200,000 acre-feet has been stored for future use through 1999. The goal is to inject between 30,000 and 40,000 acre-feet per year when supplies from the Colorado River are available to Nevada.

With the continued influx of new business and residents to southern Nevada, sound water management has become everyone's priority. Without the Colorado River, the economic development and quality of life that southern Nevadans have enjoyed would not be possible.