



Sara Tramiel/Special to the RCJ Custom Publishing Group

**XERISCAPE:** Clark County Parks and Recreation removed 402,000 square feet of turf at Sunset Park and replaced it with water-conserving Xeriscaping.

## Converting grass and conserving water in Southern Nevada

Clark County cultivates desert-friendly landscapes.

By **BRANDI SCHLOSSBERG**

That Southern Nevada is partial home to the Mojave Desert — the driest desert on this continent — speaks volumes about what will grow there.

It's a message Southern Nevada parks departments now are hearing loud and clear.

In Clark County, rocky, dry soil spreads out under scorching air and sunshine. For years, residents worked against the natural state of the terrain, dumping water on dry land in an effort to cultivate the lush, green grass typically seen in moisture-rich states such as Washington and Oregon.



**DESERT-FRIENDLY:** Clark County has converted more than 600,000 square feet of grass into landscaping that requires little or no water.

Residents of Clark County, which includes large cities such as Las Vegas and Henderson, succeeded in growing natural green turf with heaps of water and fertilizer. So, too, did Clark County Parks and Recreation, which cultivated grass in its numerous urban and rural parks, roadway medians, open-space preservation areas and special-use facilities, such as sports complexes.

Over the years, however, the triple threat of global warming, drought and a decreasing water supply has grown increasingly apparent.

"We have dried up our many springs by pumping too much ground water, and caused the valley to sink, limiting the aquifer's ability to ever refill completely," said Patrick Gaffey, Clark County Parks and Recreation Cultural Division Supervisor. "The Colorado River, on which we now depend, is severely overused and is dwindling due to persistent drought, which will probably continue far into the future," he continued. "Use of oil and coal have brought on global warming, and its impact is being felt in Southern Nevada with particular strength."

The parks agencies of Southern Nevada have stepped up to reverse those damaging trends and conserve crucial resources.

## Watching water

Reducing the use of water has been at the forefront of the environmental movement in Southern Nevada, and altering water-dependent landscaping is a step in that direction.

The Clark County Parks and Recreation Department already has converted more than 600,000 square feet of grass into landscaping that requires little or no water, and plans are in place to continue the drastic reduction of turf.

"Parks agencies traditionally use much energy and vast amounts of water," Gaffey said. "Conservation by our agencies can make a real impact, and it also can set examples for citizens, influencing landscaping styles and water use."

According to Clark County staff, the Southern Nevada Water Authority encourages the reduction of turf by paying citizens and agencies alike \$1 to \$2 per square foot of turf retired, depending on the circumstances.

"In addition to saving water for conservation purposes, it makes good sense to save money by controlling how much water we use," said Jim Foreman, the Clark County Parks and Recreation Principal Management Analyst. "Our elected officials, the Board of County Commissioners, adopted a Parks and Recreation Water Conservation Plan in 2003, calling for a 25-percent reduction in outdoor water use."

In 1993, Clark County used more than 870 million gallons of water to irrigate turf and landscape materials in parks, Foreman reported. In 2006, that number dropped below 780 million gallons.

"The first improvement we made was to install Maxicom master valves and flow sensors in all of our existing parks," Foreman said. "This allowed us to electronically control all of our irrigation systems and take into account weather conditions to minimize our outdoor water use.

"The second improvement consisted of removing turf from long-running medians located along roadways and replacing it with drought-resistant plants and landscape materials," he continued. "Approximately 286,000 square feet of turf was removed from medians during this project."

The third move made by the Clark County parks agency was to remove turf from the perimeter and interior of two of the county's largest parks. The grass was replaced with decomposed granite and drought-resistant plants.

"Natural grass located on the exterior edges of large parks can be very expensive to maintain, and large portions of the water used for irrigation ends up in the street," Foreman said. "We removed a total of 647,000 square feet of turf from the perimeter of these two parks."

Additionally, the parks agency converted 277,000 square feet of natural turf to synthetic turf on five baseball fields.

“All of these improvements have decreased the water usage in our existing parks by an estimated 11.19 percent,” Foreman said. “Clark County parks saved approximately 92 million gallons of water in 2006, and that translates to approximately \$195,000.

“We anticipate that we will save more than 250 million gallons of water annually — about \$470,000 — when our Water Conservation Plan is fully implemented,” he added.

The five-phase plan calls for the retirement of turf in 20 more Clark County parks.

## Working with nature

Besides the push to retire turf and conserve water, parks agencies in Southern Nevada are making an effort to work with Mother Nature to protect and preserve the environment.

“We use Integrated Pest Management practices to sustain our turf,” said Nancy O’Connor, the manager of park services for the city of North Las Vegas. “We also use mechanical practices, such as aeration, verticutting and top-dressing to improve our soil sustainability.”

Such efforts not only help reduce the amount of water necessary to grow and maintain turf, but they also decrease the need for fertilizers and pesticides, which are often harmful to the environment.

At Wetlands Park, on the eastern edge of the Las Vegas Valley, plans are under way to enhance, protect and increase awareness of the existing wetlands ecology, which serves as a natural water filter and cleansing system.

“Clark County Wetlands Park is designed to ‘polish’ used water on its return to Lake Mead,” Gaffey said.

A Visitor and Education Center is being built at the park, including a 10,000-square-foot exhibition hall, 225-seat auditorium and classrooms. According to Clark County staff, the Leadership in Energy and Environmental Design program (LEED) of the U.S. Green Building Council will certify the building.

## Setting the pace

Parks agencies in Southern Nevada are making an effort to conserve crucial resources, especially water. Learning to respect, revel in and work with — instead of against — the desert landscape should be key to the lasting success of these environmental endeavors.

“Our resources of water and oil are not inexhaustible, and as public stewards, we have a responsibility to implement practices that minimize our use of these scarce resources,” O’Connor said. “It’s incumbent upon us to use practices that educate our citizens, so they will emulate our conservation efforts.”



**A LIGHTER FOOTPRINT:** in 2006, Clark County Parks and Recreation used 780 million gallons of water to irrigate turf and landscape materials at its parks, a drop from 870 million in 1993.