Our Goal: To become cities of the desert instead of cities in the desert

We live in a unique area of the world. Las Vegas is one of the driest places on Earth, receiving an average of only four inches of rainfall each year with an annual evaporation rate of over 80 inches of water. The Mojave Desert is a very dry place. The smallest desert area in the United States, it lies between the colder and higher Great Basin Desert and the hotter Sonoran Desert. This produces extremes in both hot and cold temperatures and makes it imperative that we choose and use properly adapted plants in the landscape. Then we can make this desert bloom—not always like a rose, but like a desert. Southern Nevada is also one of the most rapidly growing areas of the United States with limited water resources. Upwards of 60% of the water consumed is used in the landscape, mostly by homeowners to keep non-adapted plants alive in the desert.

What we do now will affect not only us, but future generations as well. Thomas Jefferson said, "All this will be for a future race...Yet I do not wish it less. On the same principle on which I am still planting trees, to yield their shade and ornament half a century hence." (Thomas Jefferson, June 24, 1812)

An environmentally sound world begins in your own yard.

Our yards and neighborhoods are the pathways through our community and ultimately lead to our water sources, including both ground water and surface water of Lake Mead. The decisions we make from developing our homesite to improving and maintaining our property—determine the future quality of life in our valley, the sustainability of our natural resources, and how much water will be available. For these reasons the Bioscape program has been developed to understand our use of natural resources and implement bioscape concepts to help both new and longtime residents conserve water, while at the same time enhancing the natural beauty of the desert and providing beneficial habitats for all species that share this valley with us.

It may surprise many to know that our yards are the first line of defense in conserving and protecting our water and other natural resources. They are also the best place to begin providing habitat for other species. Too often we tend to think that this can best be accomplished in parks and large preserved land areas. But planting trees and shrubs that provide food and cover for animals is an important beginning. This is something each of us can do as an individual to improve our community.
At the same time we can conserve water and energy around our homes. Not only can we save water and energy, but also money and time spent on fertilizer and pesticide use. Proper garden management also will prevent pollutants from entering the environment and contaminating our water. We can save time spent in maintaining a yard as well and have more time to spend enjoying it. The Desert Bioscape program enables us to cooperate with nature rather than trying to control and subdue it. This program will provide information that will give you guidelines on how to create a Southern Nevada Urban Wildlife Habitat or to retrofit your existing yard to conserve resources in an environmentally friendly manner. Creating a desert bioscape within a yard is more than just going to a nursery, picking out some plants, deciding to plant a few flowers for butterflies, and putting them in the yard. It takes forethought. It begins with setting goals and deciding what you want your landscape to provide you and your family. A well-planned yard will use native and native-like plant materials that are water and energy efficient. It will provide food, water, and shelter for wildlife to live and raise their young. It will be a place where you can relax. A Desert Bioscape can be an educational experience, especially for young children. The end results of any yard will differ with your wants and needs, who designs it and your resources but the principles will be the same for all. Yards can be formal or informal. They can be desert, grasslands, or drought-tolerant forested areas. All Desert Bioscapes begin in the same place. Those involved must have an understanding of the environment we live in and then design accordingly to meet the wants, needs and expectations of those who use the property.

It is easier to change a landscape on paper than it is in the landscape itself. For new residents, it is especially important to understand and accept that we have a very unique and wonderful climate in the Mojave Desert. Because of this, however, many of the plants that grow well here will not grow in other areas of the country. Nor will many of the plants that were common and easy to grow in other locations do well here. Those not adapted just die. There are nurseries and garden centers in our area that try to carry plants for our climate, but others just sell plants that are shipped to them. Before buying any plant, know if the plant is adapted to the area and if it has the potential to thrive in your yard. This includes the soil type, average temperatures, water availability, hours of full sun, etc. Each year plants such as azaleas are sold by the thousands here in the desert. This is a plant that needs acidic soil with high organic content of the soil, low salts in water and soil, high humidity, and a temperate climate. None of these exist in Southern Nevada, and so each year thousands of azaleas just die. If you choose plant materials that need a lot of accommodation, you will make more work for yourself, the plants will have less of a chance of surviving, and you will have to use more chemical pesticides and fertilizers. It is important to always put the right plant in the right place.

The Desert Bioscape program will cover the following topics to get you started down the road to successful desert gardening.

**Design Principles of Desert Bioscape**

1. Know your climate and your microclimate.
2. All landscapes begin with the soil.
3. Select plants that are adapted for your area.
4. Plant properly and give supplemental maintenance until the plant is established.
5. Choose plants that attract wildlife.
6. Select plants that will save water and energy.

**Maintenance Principles of Desert Bioscape**

1. Make your own soil and maintain it.
2. Implement principles of safe pest management.
3. Learn how to implement these principles when someone else maintains your yard.
4. Use water wisely in the landscape.

**References**

*Desert Bioscape: A Sustainable Urban Environment*
Clark County Conservation District (partnered on handbook), Howard Hughes Corporation, Bureau of Reclamation, Western Organics, Sol Y Sombra Foundation (grant money) Wayne Johnson and Dick Post of UNR, Nevada Division of Wildlife, Nevada Division of Forestry, Red Rock Audubon Society, Desert Demonstration Garden (advisory).