DLC RESOURCES, INC.

UNCAPPED EMITTERS

100% EMPLOYEE OWNED
DLC RESOURCES
THE LANDSCAPE MANAGEMENT EXPERTS

Drip Irrigation

Landscape in the Southwest is populated with a broad variety of desert-adapted plants. Some, such as the Creosote Bush or the Triangle Leaf Bursage, are native to this part of the Sonoran desert. Others, such as the Texas Sage, Lantana and the Red Bird of Paradise, are not native to the area, but have proven to be able to thrive here in the Valley of the Sun. Although these are low water-use plants, they all benefit from regular irrigation in the hottest months of summer.

Miles Of Irrigation

To irrigate these plants miles of underground pipes and tubes network to feed thousands of drip emitters. When activated, these emitters typically put out a flow of 1 gallon or less per hour. In some cases, an emitter with a flow of as much as 2 gallons per hour may be used. The frequency and duration of the irrigation can be controlled through a central computer or individual irrigation controllers. This allows the amount of water used to be adjusted depending on current conditions. During the monsoon season, for example, the whole system can be shut down to take advantage of the natural precipitation and save the irrigation water.

Challenges

One challenge of maintaining such an extensive network of drip irrigation is making sure the water goes where it needs to go: to the roots of the plants. Sometimes the irrigation water is emitted where there is no plant to water. You may see some of these emitters without plants from time to time

Capped drip emitter

Even if there's not much water leaking, it's still important to plug unused emitters

as you walk through the community. How does this come about? There are several reasons:

- Normal wear and tear on the thousands of tiny plastic parts in the system.
- Damage caused by vehicles traversing the landscape.
- Damage caused by rodents or other animals.
- Plant removal (both intentional and accidental).

The Solution

Although the amount of water lost through drip emitters without plants is minute in comparison to the water used to irrigate turf areas (the bulk of water consumption!), it is still important to keep unused emitters plugged. Capping unused emitters in the landscape of large communities is an ongoing process requiring continuous maintenance. However, some emitters to plants may not be capped if they benefit other nearby vegetation, i.e. a plant emitter providing water to a tree.

In order to stay on top of this, the landscape maintenance crews should concentrate on a different area of each maintenance cycle every week.

Drip irrigation is often programmed to run in the evening, nighttime or early morning hours. Manually turning on irrigation where maintenance crews are working allows them to see where the problems may exist. The crews carry

small plastic plugs to cap the ends of distribution tubes. If they encounter a larger leak, an irrigation technician should be called to do the repair.

What Can You Do?

Homeowners, too, can benefit from regular checks of the irrigation system in their yard. Turn your system on during daylight hours and have a look around. If you see water leaving the system where no plant is present, you may be able to solve the problem by plugging the ¼ drip tube commonly used. The appropriate plugs are readily available at any hardware store.

Resources

There are also a number of resources on the internet that can help you find information on how to maintain your plants and irrigation system.

For great tips on how to conserve water at home, visit wateruseitwisely.com.

Learn more about how to care for your trees and shrubs at www.ag.arizona.edu/maricopa/garden.

Drip irrigation used primarily in desert landscaping uses approximately 1 acre foot of water per year. This is the equivalent of 1 acre of water 1 foot deep. At $2.50/1,000 gallons, a community would spend approximately $800 per acre.

In comparison, turf areas use 5 acre feet of water per year. That is 5 times the amount of water compared to desert landscaping. It's important to cap emitters, but any water lost from an uncapped emitter is a fraction of the water used on turf.