PASADENA Water&Power
SERVING THE COMMUNITY SINCE 1906

Creating Drought Tolerant Landscapes

Step 5: Modifying the Irrigation

Improving the efficiency of the irrigation system is an important part of the water savings, achieved by removing grass. While watering by hand can deliver precise amounts to each plant, for many it is not practical. The option most chosen is to modify the existing sprinkler system, to make it more efficient. There are two methods of modifying the irrigation system, either by installing high efficiency components on the existing system, or converting the existing system to a drip irrigation system.

Improving the Existing Spray Irrigation System by Installing High Efficiency Components

If the landscape is installed with plants spaced close together, then keeping the spray sprinkler system, and retrofitting existing sprinkler heads with rotating sprinkler nozzles will be a more efficient way to irrigate. Rotating sprinkler nozzles apply water at a slower rate than typical spray nozzles, and they apply water more uniformly. These nozzles can use up to 20% less water too! They also qualify for rebates at socalwatersmart.com.

Converting the Existing Spray Irrigation System to Drip Irrigation Technology

If the landscape is installed with individual plants spaced apart (usually separated with mulch, gravel or a pathway), then retrofitting the zone to drip irrigation might be the best way to irrigate efficiently. With drip you only apply water to the root zone of each individual plant. A drip system can deep water plants, without runoff, and it can help to eliminate weeds between plants.

Drip Irrigation zones require two things that spray zones don't need.

- **Pressure regulator**, which operates between 20 and 40 pounds per square inch pressure. A spray system operates above 50 pounds per square inch. Not reducing the pressure will damage drip irrigation components (typically the system blows apart).

- **Filter**, which removes any fine sand or grit which might clog the drip emitters.

Drip irrigation systems can be installed completely above ground with the old spray system being removed or abandoned in place.

Drip systems can also be installed by converting the existing sprinkler heads.

Both of these types of conversions require pressure regulation and filtration. Many manufacturers have kits with everything required to make these types of conversions easy. Just make sure to not mix spray sprinklers and drip irrigation in the same irrigation zone.

If you choose not to convert your old irrigation system to drip irrigation, you need to change the sprinkler heads to drip systems or cap them.