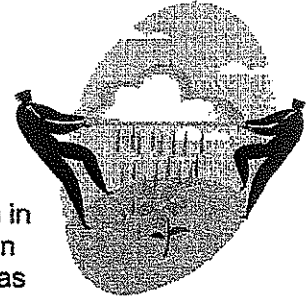




Watering Your Landscape



Water, it's our most precious natural resource! It occurs naturally on Earth in three forms – in liquid as water, as a solid in the form of ice, and as a gas in the form of water vapor. The water on our planet is the same water that was here millions of years ago and no new water will ever be available. Less than one percent of the entire world's water is fresh and it is shared by all the population of the planet.

The Town of Gilbert began making plans for growth more than 20 years ago when the population was less than 15,000. Although the Town has adequate water supplies for our residents today and for the future, it has none to waste. Learning how to use water wisely is something each of us can do and incorporate into our daily lifestyle.

Resources

The Town of Gilbert relies on a variety of water resources.

- Salt and Verde River watersheds. The Salt River Project manages snow and rain runoff from these areas in the north central portion of the state.
- Water from the Colorado River watershed is delivered to the Valley via the Central Arizona Project canal.
- Groundwater is pumped from deep within the earth below our Town. This is the most pure form of water available.
- Treated, recycled waste water is used on landscapes, golf courses, in industry, etc. This is reclaimed water.

According to State law, Gilbert must not pump more water from the ground than it can replace by recharging our aquifer. An equilibrium (called safe yield) must be achieved by 2025. This is why the use of surface water and reclaimed water will play an increasingly important role as water resources in the years to come.

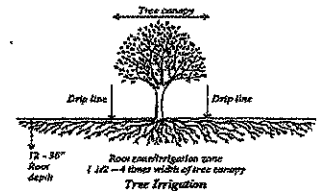
Because most of the water Gilbert supplies to residents and businesses is used outdoors on landscapes, it is important to know how to apply it appropriately.

Water

Drip irrigation systems are designed to deliver water directly to the root zone for optimum absorption. Homeowners tend to overwater their landscapes, sometimes using as much as 70 percent of their total water consumption outdoors and applying 2 to 4 times more water than the plant material really needs. Your goal is to provide your plants with the water they require, in the root zone where they can use it.

How To Water

A plant's feeder roots are located in the area of the drip line. As plants grow this zone moves out as well. As a result, emitters should be moved out to the drip line every year or so.



Deep, infrequent irrigations are the most beneficial. Water should soak down into the soil 1 foot for groundcovers and turf, two feet for shrubs and three feet for trees. This encourages roots to grow deeply in the soil which produces a healthy plant able to withstand hot

temperatures and drying winds. In contrast, light, frequent irrigation can create shallow roots and a layer of salts that interfere with nutrient transport.

How Often to Water?

This will depend on a number of factors such as:

- ♣ Climate (temperature, humidity, wind, sun)
- ♣ Soil type
- ♣ Plant type
- ♣ Plant size
- ♣ Irrigation type
- ♣ Irrigation efficiency

You should never need to water established landscapes with groundcovers, shrubs and trees more often than once per week in the summer and once a month in the winter as long as you are watering deeply. Many desert-adapted plants need water even less often! Lawn areas will need water twice a week in the summer tapering to once per month in the winter (if dormant). Annual flower beds and vegetables will need water more often.

How Long to Water?

For most drip systems run your system a **MINIMUM of two hours** per valve/station. If trees are on a separate valve water for several hours. Sprinklers on turf should run between 10 – 30 minutes.

Newly installed plants will require frequent irrigations for the first few weeks. Gradually reduce the frequency but allow the duration to remain the same as plants become established. (See page 14 of *Landscape Watering by the Numbers*) Too much water will restrict the amount of oxygen available to the roots and may even encourage fungal and bacterial growth, especially in the summer. Overwatering will also promote excessive plant growth that will require more maintenance.

You can extend your watering intervals with the use of mulches. This slows the evaporation rate of the soil and keeps soils cooler in our brutal summer heat.

Follow the irrigation guidelines listed in *Landscape Watering by the Numbers* or on your yellow plastic watering card for your plant material and the time of year.

Signs of Underwatering

- ♣ Soil is dry
- ♣ Older leaves turn yellow and brown, eventually falling off
- ♣ Leaves are wilted
- ♣ Leaves are drooping
- ♣ Leaves curl
- ♣ Entire stems or branches may die

Signs of Overwatering

- ♣ Soil is constantly damp
- ♣ New leaves may be light green or yellow with green veins
- ♣ Young shoots are wilted and may turn brown/black
- ♣ Leaves are green yet brittle
- ♣ Algae or mushrooms may grow
- ♣ Presence of soft, smelly rotted tissue

Tips:

- ✓ To manage salt buildup which is common in our soils, run your irrigation system for twice as long as normal, once or twice a year to flush salts through the soil profile below the root zone.
- ✓ Group plants with similar water needs on the same irrigation valve. Trees should have a separate valve if possible.
- ✓ When in doubt about how deep to water, use a soil probe to determine watering depth.