

Managing Water a Drought

Measuring Water:

Volume is measured in acre-feet. One acre-foot of water is about 326,000 gallons

Flow is measured in cubic feet per second (cfs). One cfs is about 7.5 gallons per second.

Rule of one: One cfs for one hour is approximately one acre-inch. So, 1 cfs for 12 hours would equal one acre foot, and so on.

The Three Ways to Save Water:

1. Fix leaks. This results in automatic water savings.
2. Install water saving devices, such as low-flow shower heads, drip irrigation systems, etc. These don't automatically save water, but make it harder to waste water.
3. Improve water management. Usually the cheapest way to save water. Simply requires a change of practice or habit.

You Can't Manage What You Don't Measure

The most effective way to measure water use is by metering it. In the absence of meters, we usually try to manage water use by measuring time, i.e. setting time periods when outdoor watering is allowed. In Ferron, we found it helpful to post a graphic weekly that looked like a gas gauge, which showed how much secondary water the city had left.

It can be counter-productive to set extremely stringent watering periods. People may water when they don't need to simply because it is their turn. Dividing towns up into sections that can water at a certain time usually doesn't work, either, because water use may exceed system capacity in that section. This causes pressure loss that does not allow sprinklers to function properly. If this level of water curtailment was needed, it would be better allow homes with an even-numbered address to water on certain days, and odd-numbered addresses on other days.

Lawns

Lawns are the biggest user of water in most home landscapes. To determine how much water is being applied, place several straight-sided cans (not tapered or funnel-shaped) around the lawn and run the sprinklers for an hour. Measure and average the water collected in the cans and calculate how long it would take to apply ½ inch of water. Run the sprinklers for that amount of time each time you irrigate. In spring and fall, you may need to irrigate only once every 7 to 14 days, depending upon temperature and rainfall. In the heat of summer you may need to water twice a week to maintain a green, growing lawn.

In extreme drought, don't fertilize the lawn. You can keep a lawn alive with as little as ½ inch of water per month (1/4 inch of water every other week). The lawn will be dormant (brown), but this level of watering will keep the grass crowns alive.

Allow for rainfall. On average, June is the driest month in Castle Valley. July through October are the wettest months.

Trees, Shrubs and Other Ornamentals

Established plants can survive with a good soaking once every two to four weeks. Look at the tree or shrub to determine when water is needed. These plants typically show leaf scorch symptoms when drought stressed. This shows up as yellowing between veins, with a broad area over the veins remaining green. This is followed by browning and dieback around the leaf edges. Note that some species of tree (Maple, Aspen) may show leaf scorch symptoms even when soil water is adequate because their leaves simply lose water faster than roots can supply it. Also, trees and shrubs that have been exposed to soil sterilizing herbicides such as Pramitol or Prometon will exhibit similar symptoms.

Apply mulch around flowers, shrubs and trees, when possible, to reduce evaporation from the soil surface.

Sources of Information on Water Conservation

USU Extension Emery County <https://extension.usu.edu/emery/>

Center for Water Efficient Landscaping (CWEL) <https://extension.usu.edu/cwel/>

Slow the Flow Utah

https://slowtheflow.org/rebates/?gad_source=1&gad_campaignid=23710053497

Conserve Water Utah (UDNR) <https://conservewater.utah.gov/>

Emery Water Conservancy District <https://emerywater.gov/>

Conserving Water in the Home <https://www.extension.iastate.edu/linn/water-conservation-tips-home>