Irrigation Water Conservation

Austin Water
Clearly Reliable

Device	Best Used For	Pros	Cons
 Drip Irrigation	Planter beds	• High application efficiency (no overspray) • Required in commercial landscapes for areas with less than 6' between impervious surfaces, i.e., between sidewalk and curb • No runoff	• Emitters should be covered with mulch so it is difficult to detect problems • Emitters tend to clog • Only effective when emitters are close to plants root zone
 Bubblers, Flood or Stream	Flat bedding areas and tree wells	• Can be used under shrubs and dense foliage • Good for establishment period of trees (2-3 yrs.) • No overspray	• Do not distribute water very far which requires heads to be spaced near each other • Have the potential to distribute large amounts of water, often causing runoff • Not effective at reaching root zone once trees are established
 Spray Heads	Small irregular turf areas	• Distribute water at a fast rate • Relatively easy to repair • Best for irregularly-shaped areas	• Lowest distribution uniformity • Often need more maintenance • Narrow range of operating pressure
 Rotor Heads	Large turf areas	• Can operate at higher pressure • Low application rate minimizes runoff • Good uniformity of coverage	• Not suited for smaller turf areas • Easily obstructed as plants grow taller
 Multi-stream / Multi-trajectory Rotors	Moderate to large turf areas	• Best uniformity of coverage • Low application rate reduces runoff • Can compensate for high system pressure	• Not suited for small beds

Keys to Irrigation Scheduling Success

Proper seasonal scheduling of your irrigation system is just as important as the condition of the system. Follow these simple steps to apply just the right amount of water your landscape needs:

Get to know your controller. Most controllers have multiple start times, multiple programs and seasonal adjustment capabilities. These can be used to your advantage, but watch out for accidental excessive scheduling.

Start low and, if needed, increase incrementally.
Use the suggested run times listed below as a starting point for scheduling your controller. Infrequent, deep waterings help increase root health; make sure your schedule is in line with the current water restrictions.

Base your station times on plant material, sun exposure, and what type of emitter is watering that area.

Match your watering to the season. Plants will need less watering in the spring and fall, and almost no additional watering in the winter when most plants go dormant. In fact, it's a good idea to turn your irrigation system off in the winter months. **Always confirm the watering restrictions for your address.**

Watering Efficiently

Perform system evaluations on a regular basis looking for proper coverage. Install a rain sensor if you don't have one.

Stressed areas in the landscape can often point to deficient areas in the irrigation system or a pest or disease problem. Refer to the Grow Green Diagnostics or Lawn Problem fact sheet (www.growgreen.org) and check the irrigation coverage in that area before increasing station times.

Hand water stressed areas and high water need plants. Even the best irrigation systems apply more water in some areas than they do in others. Use a hose to put water where you need it.

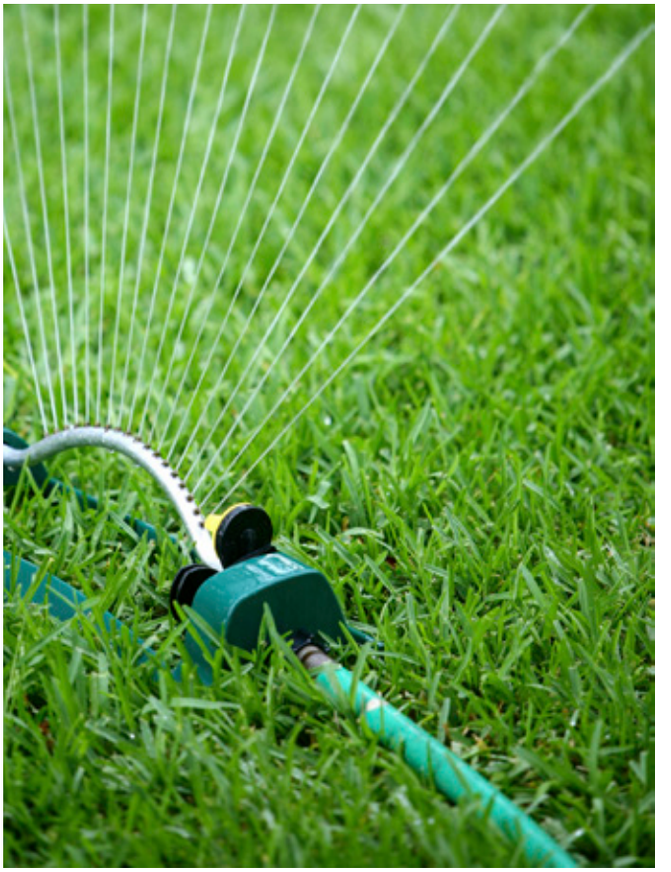
Suggested run times				
Plant Type	Spray heads	Rotor heads	MSMT heads	Drip
Turf grass	8-12 minutes	18-25 minutes	30-35 minutes	30 minutes
Planter beds	6-10 minutes	10-15 minutes	15-20 minutes	20-30 minutes

Establishing a Landscape

Are you planning on changing your landscape? Consider using drought tolerant plants. Newly transplanted plants go through a lot of stress and need moist soil to get established. Here are some guidelines for using an irrigation system to establish a landscape; be careful, irrigation systems can apply a lot of water very quickly.

- If you are planting only a few plants, use a hose and apply the water right where it's needed.
- Don't mix high water need plants into an area of low water need plants. You want plants with similar water needs all on the same station.
- As a general rule, water frequently at the beginning and as plants establish, decrease the frequency of watering and increase the depth of watering.
- Unless there is a dedicated tree bubbler, don't rely on your irrigation system to establish a tree.

Austin Water offers new landscape variances to customers to establish landscapes outside of the normal watering restrictions. Variances depend on Austin's current drought response stage; www.WaterWiseAustin.org contains applications and information about new landscape variances.



Water Use Compliance

The City of Austin has adopted a water conservation code to ensure the efficient and responsible use of water in Austin. The code limits landscape irrigation based on the combined storage of Lakes Travis and Buchanan and permanently prohibits water waste. You can always find up-to-date information including Austin's current drought response stage, watering violations and fines, and applications for variances at www.WaterWiseAustin.org.

Water waste is defined as:

A person may not:

(1) fail to repair a controllable leak

(2) operate an irrigation system misting due to high pressure, spraying directly onto an impervious surface or that has a broken head

(3) allow irrigation water to runoff greater than 50 feet or pond to a depth greater than 0.25 inches

Helpful exemptions from restrictions through Drought Response Stage III:

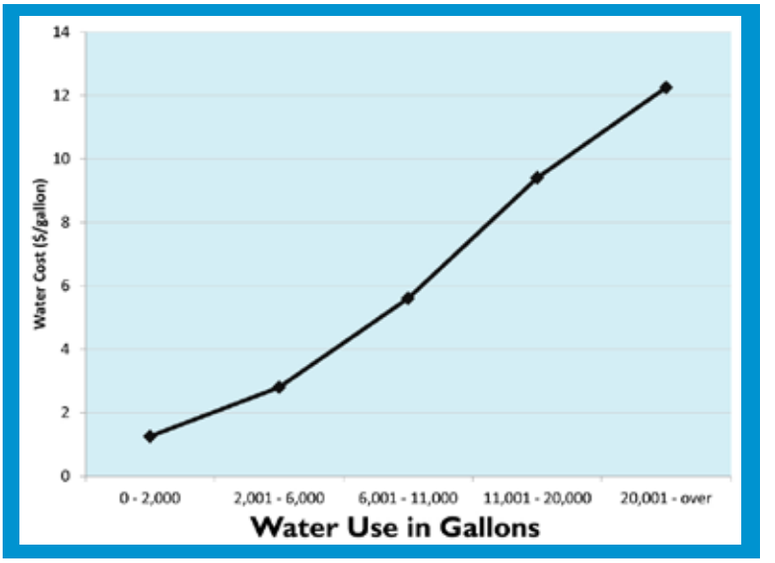
- using a hand-held hose or refillable watering vessel
- using drip irrigation
- watering trees using an automatic bubbler system or soaker hose placed within the drip-line of the tree canopy
- watering vegetable gardens with a soaker hose

Irrigation Evaluations

Austin Water offers free irrigation evaluations for its residential customers. During the evaluation, a licensed irrigator will provide an overview of your system's performance and make recommendations for scheduling changes and equipment upgrades. Services provided include:

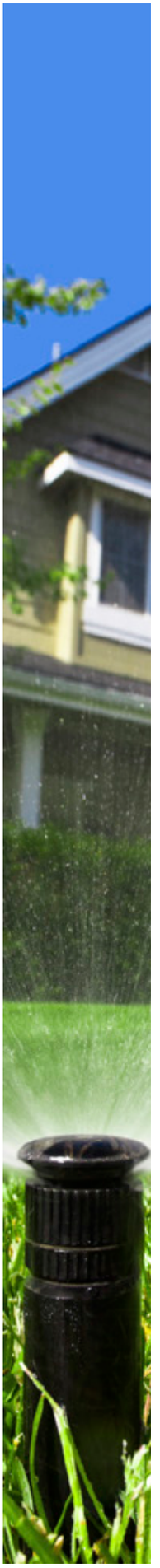
- Controller settings check
- Inspection of components during operation
- Flow rates and recommended usage for each station
- Suggestions for improvement

To schedule a free evaluation, call 512-974-2199 or schedule online at www.WaterWiseAustin.org



The more water you use, the more you pay per gallon.

A Do It Yourself (DIY) Guide to Irrigation Evaluations



It is important to check that your irrigation system is performing efficiently, and your irrigation schedule fits your landscape and the season.

To perform an irrigation evaluation, you will need several items:

- An evaluation template (included in brochure or can be printed at www.WaterWiseAustin.org)
- A calculator
- A stopwatch
- Marker flags (available at hardware stores)

Follow these steps when you are ready to perform the evaluation:

1. Open the meter lid and clear away any debris from the meter face.
   - Be careful, meter lids are heavy; keys to help lift the meter lid can be purchased at hardware stores.
   - The meter should not be turning if water is not being used in the house.
   - Each number around the meter face reflects one gallon of water on most meters.
2. Log the current controller settings (refer to the manual for assistance), including:
   - Scheduled days to water (refer to current stage restrictions)
   - Program start times (it is possible to have multiple)
   - Station run times

   ** Check each program (A, B, C, D) to verify whether other programs are running.*
3. Start a test program that will run each station for 1 or 2 minutes.
   - Many controllers have a "test" feature available on the controller.
   - If there is no "test" feature, set a program with one minute station times and run that program manually.
4. Go to the meter and use a stopwatch to get the gallons per minute (GPM) of each station as the test program runs.
   - After a station pops up, time the meter for 30 seconds. Multiply that number by 2 to get the GPM of that station.
   - You may notice a rush of water during station transitions; wait to time the meter until the transition is complete and the heads are fully popped up.
5. Go back to the controller and start another test program.
6. Evaluate the station making notes about:
   - Plant material
   - Sun exposure
   - Head type

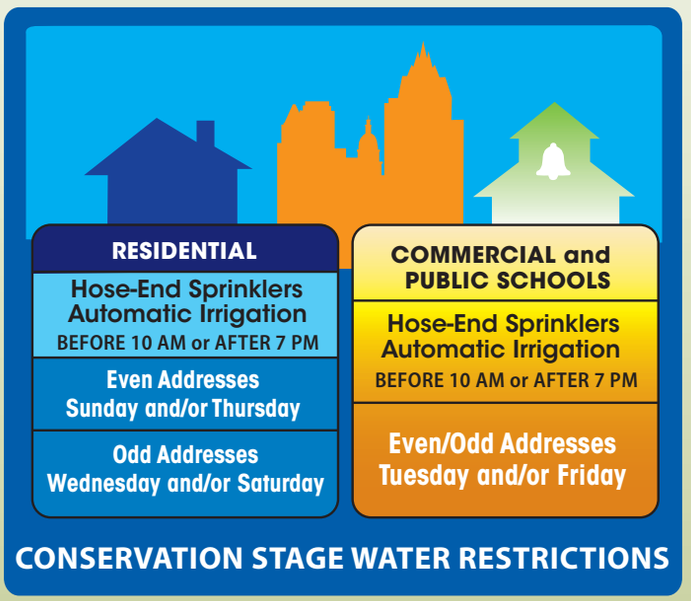
   Also, make note of problems you notice in the irrigation system including:
   - Areas of deficient coverage
   - Misting which can indicate high operating pressure
   - Direct overspray onto impervious areas
7. Use the above information to determine a good seasonal schedule for the landscape. Use the GPMs to calculate just how much water your irrigation schedule will use.
   - Use the suggested run times by emitter listed in this brochure as a starting point.
   - Decrease time on native and adapted areas (or turn them off for the time being) and add time (if needed) to higher need plants.
   - Take advantage of shady areas by decreasing time on those stations.

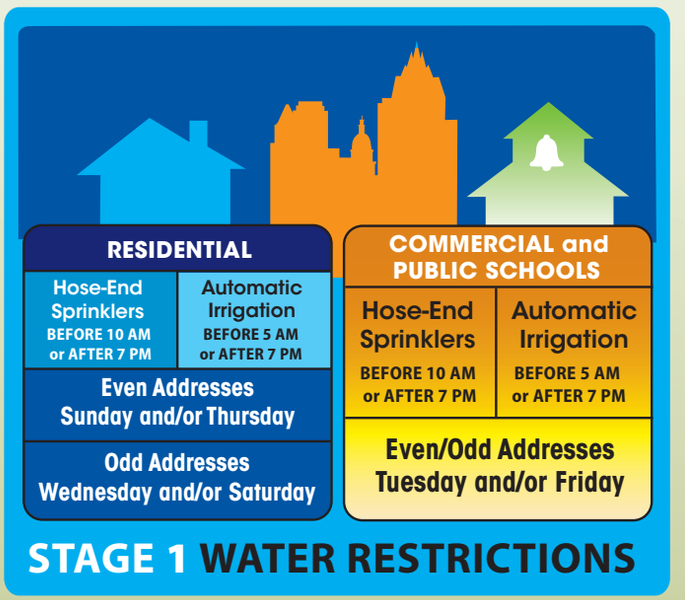
Austin is in Stage 2 Watering Restrictions*

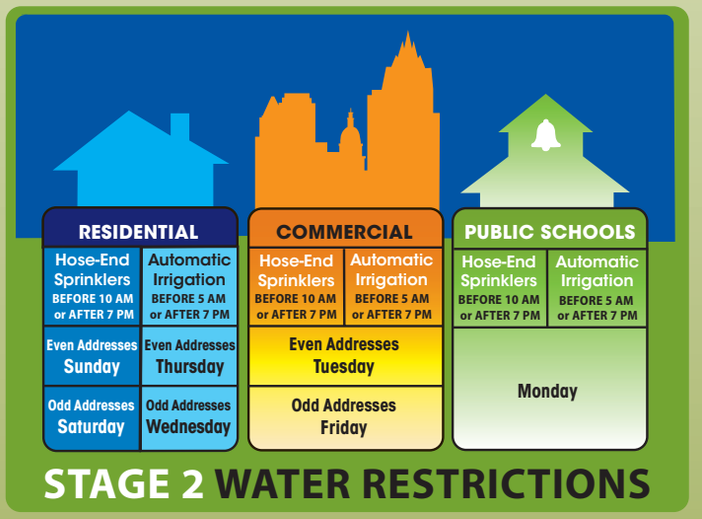
Please note that watering days and times and other restrictions have changed with the passage of the new Water Management Plan in August 2012. Five drought stages ramp up water use restrictions during times of drought to maximize water conservation. These stages are aligned with drought triggers such as lake levels and water consumption. Conservation staff enforces the Water Use Management Ordinance and can issue violations.

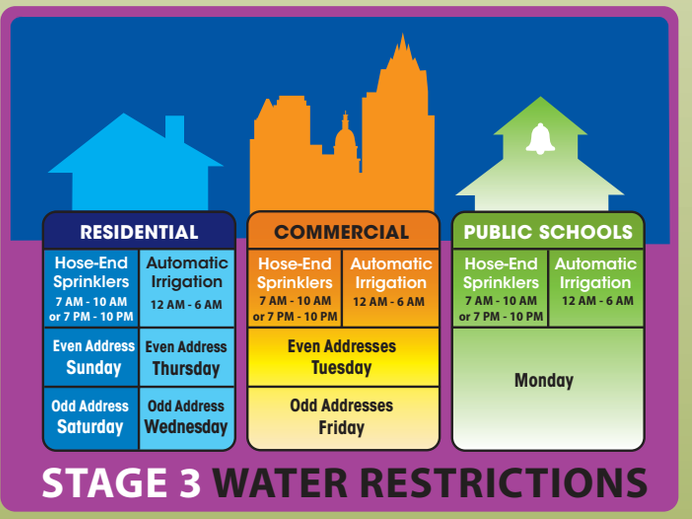
Check www.WaterWiseAustin.org or call Water Conservation at 512-974-2199 for the most current water restrictions.

Drought Response Stages









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For more information please visit our web site, www.WaterWiseAustin.org