Irrigation Evaluation

Austin Water offers free irrigation evaluations for qualifying residential customers. During the evaluation a licensed irrigator will provide an overview of how your system is performing and make recommendations for scheduling changes and equipment upgrades. The evaluation covers:

- Controller settings check
- System components inspection for problems
- Leak identification
- Recommended flow rates and usage for each zone
- Suggestions for improvement

To schedule an audit, call Austin Water at 512-974-2199 or schedule online at: http://austintexas.gov/department/irrigation-system-evaluations-and-rebates

Did you know....?
The more water you use, the more you pay per gallon?

## Suggested Run Times

<table>
<thead>
<tr>
<th>Plant Types</th>
<th>Spray Heads</th>
<th>Rotor Heads</th>
<th>Multi-Spray</th>
<th>Drip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turf Grass*</td>
<td>8-12 minutes</td>
<td>18-25 minutes</td>
<td>30-35 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Planter Beds</td>
<td>6-10 minutes</td>
<td>10-15 minutes</td>
<td>15-20 minutes</td>
<td>20-30 minutes</td>
</tr>
</tbody>
</table>

* Generally requires 1” of rain weekly during summer months

These suggested run times are general guides, and may need to be adjusted for individual landscape conditions.
### How to Operate Your System

When you have an irrigation system it is important to know how to operate it correctly and make changes when needed. Here are some tips to ensure you're getting the most out of your water use:

- Most water waste is due to extra start times and excessive run times.
- Know your landscape. All plants have different water needs, which should be considered when programming the controller.
- Supplement your water needs with rain barrels or a customized rain harvesting system.
- Perform a system evaluation periodically.

### Watering Efficiently

- The Texas Commission on Environmental Quality requires all new systems to have a rain shutoff device. If your system does not have one, they are easy and inexpensive to install and the water savings will easily compensate for the initial costs. Rain sensors may be purchased at any irrigation supply store or through a licensed irrigation company.
- Properly diagnose your problem – more water is not necessarily the answer. If you have an area of turf or plants that look unhealthy, there’s a good chance you may have pests or a disease. Refer to the Grow Green Diagnostics or Lawn Problem fact sheet (www.growgreen.org) before increasing the watering schedule.

### 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
Repairs to irrigation systems made must be made by the homeowner or an irrigator licensed by the Texas Commission on Environmental Quality

Self Audit Guide

It is important to check that your irrigation system is performing efficiently.

To do so, you will need:

• An audit template (download available at www.waterwiseaustin.org)
• Calculator
• Stopwatch
• Marker flags to mark problem areas (purchase at hardware stores)

It is best to use the test program feature on the controller. If your controller doesn’t have a test program, you can run your sprinklers for 2 minutes on one of the unused programs. **Do not add a start time or set a watering day.** (If you are unclear how to do this, please refer to your controller manual).

Steps for Checking System

1. Log the current controller settings (refer to controller manual for assistance)
   • Scheduled days to water
   • Start times (it is possible to have multiple)
   • Station run times
   • Repeat for each program (A, B, C and D) if needed although most landscapes require only the A program

2. Read the Meter
   • Each number around the meter face reflects one gallon
   • Using a stopwatch, count the number of gallons flowing through in 30 seconds, multiply by 2 to get the number of gallons per minute
   • Multiply the gallons per minute by station run time to find total usage for the station

3. Evaluate the station for the following problems:
   • Heads that spray onto the sidewalk, driveway, or street
   • Heads that are not operating, are buried or have reduced water flow
   • Heads that may be broken at their base or gushing out the top
   • Heads that are tilted backward or to the side
   • Heads that cause a cloud of mist
   • Areas that are receiving very little water

4. Landscape features
   • Note what kind of plant material is being watered by this station -- turfgrass and exotic plants generally require more water than native and adapted plants
   • Ideally plants should be grouped with other plants with the same water needs -- if an existing station consists of varied plant material, water according to the plants with the highest water need
   • Plants in full sun usually require more water than those in shade
   • Note soil structure – clay soils often require shorter run times to prevent runoff

5. Determine appropriate run times (this is the tricky part)
   • As a general rule it is best to water deeply once per and no more than twice a week -- **but only if you can comply with the current watering restrictions stage**
   • Based on the plant material and sun and soil conditions, start with lower run times and wait to see if the plants seem stressed before the next watering. If so, add a few minutes to the run time
   • Use the chart on page 1 to determine a good starting point
CONSERVATION STAGE

WATER RESTRICTIONS

Water Once or Twice per Week

STAGE 1

WATER RESTRICTIONS

Water Once or Twice per Week

STAGE 2

WATER RESTRICTIONS

One Day Per Week Watering

STAGE 3

WATER RESTRICTIONS

One Day Per Week Watering

for current drought response stage restrictions and variance applications, visit www.waterwiseaustin.org

www.growgreen.org

REPORT VIOLATIONS TO 3-1-1