

Thank you for participating in the 2007 Irrigation Audit Program. This audit will help you make adjustments on water conservation, maintenance and/or management of your irrigation system. The following are my findings:

Audit Summary:

- Your system consists of 6 zones for the turf areas (zones 3-8) and two zones for drip system (zones 1 & 2.)
- Several heads are tilted, low or need adjustment.
- Two heads should be added for better coverage.
- One head is stuck.
- A few should have the throw adjusted.
- Four should have the radius adjusted. All are indicated on the enclosed maps.

Recommendations:

- Tilted sprinkler heads indicated on the map need to be straightened. When heads are tilted just a few degrees it can seriously affect the radius. The top of the sprinkler head should be nearly at and parallel to grade.
- Low heads should be raised enough so the spray does not hit the lawn directly in front of them. An easy way to tell if the sprinkler head is too low is by the presence of a “frog eye” pattern around the head. The blades of the grass will be pushed flat from the force of the water hitting them. When the spray cannot clear the plant material, it results in a broken spray pattern. Some areas will not receive adequate water and pooling occurs at the head.
- The heads in need of adjustment should be rotated to cover the edges of the lawn and not spraying the hardscape or other unwanted areas.
- Those that need the throw adjusted are presently emitting a thin stream of water with few water droplets. Use the diffuser screw to break up the stream of water into droplets for better coverage.
- Maxi-paw heads should be fitted with the appropriate nozzle for matched precipitation rate on all heads.
(full circle, part circle) See enclosure on Maxi-Paw nozzles.
- I examined areas of brown patches. When the turf blades were examined closely, ascochyta leaf blight and melting out disease were found. See enclosed fact sheets.
- Turf should be watered deeply but infrequently to promote deep roots and avoid disease problems. Watering every day should be avoided. Watering between 10 P.M. and 6 A.M. is preferred. Avoid watering between 4 P.M. and 10 P.M. See enclosed fact sheet on watering established lawns.
- Once all the problems noted are corrected, you will reduce the amount of water applied. Most people reduce their total water application by 40 percent. Watch the reaction of the turf. If it appears drought stressed, increase the time the system runs by 10%. If the turf is looking great, reduce the amount of time the system runs by 10%. This is done by using the “water budget” / “seasonal adjust” feature on the controller. Continue to cut back on the amount of water applied until you start to see dry areas develop on the turf. This technique will allow you to fine-tune the length of time you water and the amount of water you apply. This will also allow you to reduce the potential for disease and insect problems on your turf. Watering too frequently in the spring can kill deeper roots, which results in more watering during mid-summer to keep it alive. Spring and fall months

- require less watering, while the heat of summer demands more frequent watering.
- Core aeration can help increase rooting depth, reduce stress and thatch. After aerating, top dress the lawn with a fine organic matter such as Mesa Magic Ultra (found at the composting facility at the Mesa County Landfill or local garden centers). After top dressing, rake the organic matter into the lawn. See attachment on core aeration.
 - Follow the late season fertilization program to ensure the correct amount of fertilizer is put on the lawn in the fall to help it get through the winter months and into the following spring. We recommend using Ammonium Sulfate. See enclosed fact sheet on late season fertilization.
 - The lawn should be maintained at a height of 2 ½ to 3 inches. If you choose to maintain the lawn at a height of 2 ½ inches, mow the lawn at the height of 3 ¾ inches. If you decide to maintain the lawn at a height of 3 inches, mow the lawn at the height of 4 ½ inches. This will ensure you remove no more than 1/3 of the blade at any one time. If more than 1/3 is removed, root loss will occur. A lawn maintained at a height of 2 ½ to 3 inches is healthier and requires less water.

Once you have the problems noted in this letter corrected, we would suggest you have an Advanced Audit performed. The Advanced Audit will determine the soil type, rooting depth, rate of precipitation and overall efficiency of your system. Using this data, we will then provide you information on how to set your irrigation clock to ensure you are providing the lawn adequate moisture yet avoiding over watering. This will include information on how long to set your clock, the number of days you need to water each month, and the number of cycles you need to use to ensure proper irrigation. Once you have this information, you will know how to adjust your irrigation clock for each month from April through October. Water use by turf changes monthly and your irrigation clock should be adjusted accordingly. We can teach you how to adjust your clock if you are unsure of the process.

Our goal with the Advanced Audit is to improve the efficiency of your system, improve the health of your lawn and reduce over watering. Approximately 600,000 tons of salt are flushed into the Colorado River from the Grand Valley each year due to over watering of lawns and agricultural fields. You can help reduce the salt loading of the Colorado River by having an Advanced Audit conducted and then following the guidance we provide you. The Advanced Audit costs an additional \$25.

If you have any questions, please do not hesitate to call me at 683-4365.

Sincerely,

Ardith Blessinger,
Certified Irrigation Auditor

Enclosures:

Fall and winter watering	Core Aeration
Late season fertilization	Lawn Care
Watering established lawns	Individuals doing sprinkler repair
Melting out disease	Ascochyta leaf blight
Maxi-paw nozzles	