

## Ways to identify leaks

Every couple of months, it is a good idea to check your irrigation system for leaks and damage. If your irrigation meter is recording a dramatic increase in usage, a leak may be the problem. Something to look for when analyzing your recorded water usage is when zones of about equal size have vastly different usages. This can also be an indicator of a leak in one of the zones.

A small leak, about the size of a pin head, dripping at one drop per second can add up to 7 gallons of water a day. A large leak, the kind most often found in broken sprinkler heads and broken pipes underground, can waste 200 gallons of water or more per day!

Look for the following when you suspect a leak or overwatering:

1) The most common area to look for leaks is in the main line that feeds all the zone valves. This is the only area that the meter will record a leak or allow you to determine if a valve is leaking. Make sure when you restart the irrigation system, watch to make sure the valves are not stuck open or closed.

2) If there is a leak in one of the zones or stations, the meter will not give any indication. Each station needs to be turned on and examined in order to verify the presence of a leak at that station.



3) Check your sprinkler heads for any broken fixture or leaks. Watch for gushing water, geysers or puddles of water around the base of the sprinkler head.

4) Check your yard for soft wet ground, pooling of water or lush grass growth in isolated areas.

This could be a sign of a broken or leaking pipe beneath the ground. Be aware that since leaks tend to occur on the underside of a pipe, water often seeps downward into the soil or rock instead of coming to the surface and creating a more obvious sign of wetness or greener grass.

5) Look for water runoff in the street. This could be a sign of a broken head or that you may be overwatering.



Make sure your sprinkler system is set to water your lawn with the proper amount of water. Overwatering costs you money and creates water waste.

6) If you need to check your sprinkler system outside of permitted watering times, please call (830) 608-8926 to notify a Conservation Resource Representative.

## We are here to help!

NBU offers free audits to help you identify ways to reduce your water use. If you would like to schedule a water audit, please contact the NBU Water Hotline at (830) 608-8926 or e-mail [conservation@nbutexas.com](mailto:conservation@nbutexas.com).

We also have helpful water saving tips available on our web site at [www.nbutexas.com/Conservation](http://www.nbutexas.com/Conservation), along with a Landscape Watering Guideline, the complete Water Conservation and Drought Management Ordinance and information on rebate programs for water savers!



## Reading Your Irrigation Meter



*A helpful guide for measuring your sprinkler system's water use*

*Photo courtesy of Hunter Industries*

# Reading Your Irrigation Meter

For billing purposes, NBU will read and bill to the nearest one hundred gallons. For calculating usage in your irrigation meter, you need to read your meter to the gallon. The instructions that follow are for 5/8" to 1" meters. If you have questions concerning a larger meter, please call (830) 608-8872.

To determine how much water your irrigation system uses during a watering cycle, you will need a pen or pencil, note pad, gloves, and a timer or stopwatch. Then follow these steps:

**Step 1:** Locate irrigation meter.

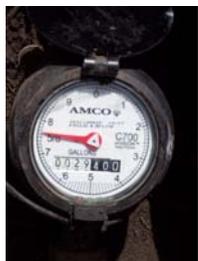


**Step 2:** Remove cover to irrigation meter.

**Step 3:** Inspect inside the box for wildlife such as snakes or spiders.

**Step 4:** Wearing protective gloves, reach into irrigation meter box and flip up the dial cover to expose the meter dial. Be careful NOT to disconnect any wires or damage any part of the meter equipment. If this happens, contact NBU at (830) 608-8800 immediately.

**Step 5:** Looking at the register, you will see six dials with the digit on the right being stationary. This stationary digit is actually represented by the sweep hand on the face of



the register. For example, the meter read on the photo at left reads 29408 because the usage is not past the 8. The sweep hand measures gallons and one complete revolution of the sweep hand equals 10 gallons. Properly measuring usage requires

reading to the gallon for accuracy. When you begin your calculation, start when the meter sweep hand is directly over a number. If you need to adjust it, you can turn on a faucet slightly until the arrow on the sweep hand moves over a number.

**Step 6:** Locate irrigation system control box.

**Step 7:** Set timer for five minutes.

**Step 8:** Manually turn on first zone of irrigation system.

**Step 9:** Start timer or stopwatch.

**Step 10:** While first zone is running, inspect sprinkler heads in zone for leaks and to make sure they are running properly. Watch for gushing water, geysers, and pools of water around base of sprinkler heads.

**Step 11:** When five minutes has passed, turn off system.

**Step 12:** Return to irrigation meter and log new meter reading.

**Step 13:** Repeat steps 8-12 for each zone in your irrigation system.

**Step 14:** By the end of this process you should have an irrigation meter reading for each zone in your irrigation system, plus the initial reading.

**Step 15:** Below is an example of water meter readings taken after following the above steps:

	Reading	Time run
Initial reading	4568	
Zone 1	4592	5 min
Zone 2	4643	5 min
Zone 3	4681	5 min
Zone 4	4713	5 min
Zone 5	4772	5 min
Zone 6	4811	5 min

**Step 16:** To calculate water usage for Zone 1, take the initial reading (4568) and subtract it from the reading taken at the end of Zone 1 (4592). For example:  $4592 - 4568 = 24$  gallons used in five minutes. To find the gallons used per minute, divide 24 by 5. For example:  $24 \div 5 = 4.8$  gallons per minute. Not every zone will have the exact same usage as another zone. Some may have more sprinkler heads, some may include drip irrigation, and some may also have higher flow sprinkler heads to cover a greater area.

**Step 17:** Repeat step 16 for each zone using the previous zone reading as the initial reading.

**Step 18:** To calculate overall usage, take initial reading (4568) and subtract from final reading (4811).  $4811 - 4568 = 243$  gal for running the system 30 minutes.

	Reading	Time	Usage (gals.)
Initial reading	4568		
Zone 1	4592	5 min	24
Zone 2	4643	5 min	51
Zone 3	4681	5 min	38
Zone 4	4713	5 min	32
Zone 5	4772	5 min	59
Zone 6	4811	5 min	39
Total:			243

*NOTE: This example was based on six zones running for 5 minutes each. If you have a different number of zones, that difference will need to be taken into consideration when calculating overall usage.*