



Knowledge On Tap: Detecting Leaks

Cost of Leaks

How much water am I really losing if I do have a leak?

You may think that a leak is no big deal, but it certainly can be. Fixing small leaks could save you significantly on your water bill. Below is a chart of leaks and how long it would take to see an increase in \$100 on an in-city or out-of-city residential water bill.

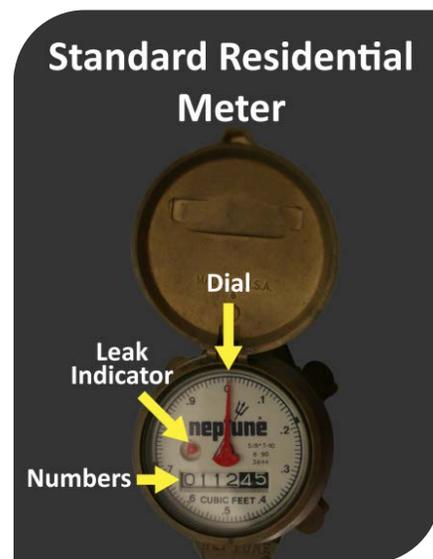
Example Water Loss	Gallons per day	In-City		Out-Of-City	
		Days to spend at least \$100		Days to spend at least \$100	
Dripping faucet –slow (1 drip/ second)	5.71	2,260	or about 6 years and 2 months	1,329	or about 3 years and 8 months
Dripping faucet – steady (5 drips/ second)	28.53	452	or about 1 year and 3 months	266	or about 9 months
1/32 in leak at 60 psi	197.38	65	or about 9 weeks	38	or about 5 weeks
1/16 in leak at 60 psi	789.52	16	or about 2 weeks	10	or about 10 days
1/8 in leak at 60 psi	3,158.06	4	or about 4 days	2	or about 2 days
1/4 in leak at 60 psi	12,632.26	1	or about 1 day	1	or about 1 day

Looking for Leaks

How do I use my meter to determine if I have a leak?

All City of Columbia water meters should have a leak indicator. It is either a triangle (see image to the right) or a spinner in the middle of the meter that moves whenever water is flowing through the meter. To see if you have a leak:

1. Turn off all faucets in your house. Make sure the dishwasher, washing machine, ice maker, and irrigation are all off as well.
2. If the leak indicator is moving at all, water is flowing through the meter, and you have a leak somewhere in your system.
3. If you think you might have a slow leak or a sporadic leak (i.e. a leaking toilet), note where the **Dial** is pointing and what the **Numbers** are showing. In the example, the **Dial** reads 0.00 cubic feet and the **Numbers** read 11245 cubic feet. The total for the meter is the **Dial + Numbers** or 11245.00 cubic feet.
4. Wait for 15 minutes or an hour (however long you feel comfortable) without using any water.
5. Come back and read the meter. If it has changed, water is flowing through the meter, and you have a leak somewhere in your system.



Once the leak is repaired, you may be eligible for a credit (see www.columbiasc.net/customer-care/utility-billing/plumbing-adjustments for details).

What are some common leaks?

Some of the most common – and costly – leaks come from:

- **Leaking toilets.** A leaking toilet can lose up to 200 gallons per day, or the same amount as a family of four!
- **Underground service line or irrigation leaks.** A 1/16 inch leak can lose up to 790 gallons per day, and you may not see it right away!

Other leaks can come from:

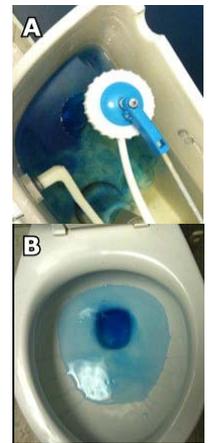
- Dripping faucets.
- Leaking plumbing.
- Swimming pools or fountains.

How do I detect a toilet leak?

A slowly draining toilet is hard to detect. Toilets fill when the water in the tank drops below a certain level. If no one is home when the toilet refills, you may never realize that water is slowly leaking. If you have to shake your toilet handle to get it to stop running, or if your toilet runs for longer than usual, you may have a leak and a running toilet can waste about 200 gallons per day! To put that into perspective, if you are losing 200 gallons per day through your toilet, that adds up to 6,000 gallons in a month. That is the average residential household use for City of Columbia customers! In other words, one leaking toilet can use as much water by itself as the average family of four.

There is a simple way to make sure your toilet tank is holding water and that the seals are operating properly:

1. Add a few drops of food coloring to the water in the tank (see **A**). Make sure you use food coloring or another colored liquid that will not stain! If you don't, you could end up with a stained toilet bowl.
2. Do not flush the toilet! You want the dye to stay in the tank to see if it will slowly leak into the bowl.
3. Wait one hour to see if the colored water appears in the toilet bowl. If it does, then you have a leak (see **B**).
4. Repairing a toilet tank leak is pretty easy and inexpensive. Check with your local hardware store for replacement parts and instructions for repair.



How do I detect faucet, shower or tub leaks?

Faucet leaks are the most common around the home and also the easiest to repair. A faucet dripping slowly, at one drop every two seconds, will waste more than 1,000 gallons per year. If you have a leaky faucet, consider replacing the faucet or visit your local hardware store for repair information.

How do I detect a hot water tank leak?

If you have a tank-style hot water heater, check the pressure relief valve on your tank. Sometimes these valves are plumbed directly into a drain so it may be leaking without your knowledge. If you can't remove the drain pipe to check for a leak, listen for a hissing sound, it may be leaking.

How do I detect a pool or fountain leak?

Even a small leak in your swimming pool can result in huge water bills! It is estimated that one in every twenty pools has at least a small leak. A pin-hole sized leak in a pool plumbing system with 40-pound pressure (psi) will lose approximately 970 gallons of water in a 24-hour period. This could add up to nearly 30,000 gallons a

month! Some signs that your pool might be leaking include a loss of 1/8 of an inch or more of water in a 24-hour period, algae formation soon after chemical treatment, loose or falling tiles, pool deck cracks, gaps and cracks in the pool shell, or constantly damp soil surrounding the pool.

To check for leaks in your pool or fountain, place a bucket on the top step of the pool and fill with water. Put a piece of tape on the inside and outside of the bucket and mark the water level of the pool and the water level inside the bucket. After 24 hours, make a new mark on the tape with the new water level in the pool and bucket. If the water level in the pool/fountain has dropped more than the bucket, there is probably a leak in the pool/fountain structure or plumbing system.

What if I have an irrigation leak and the timer isn't on during the test?

It's always a good idea to know how much your irrigation system uses when it is functioning properly (for example, knowing how much it puts out when running for 30 minutes).

You can use your meter by noting its reading before and after you run your irrigation system for 30 minutes without using water anywhere else on your property. If your use is higher than normal, you probably have a leak. If you do not have any obviously broken sprinkler heads, you may have a leak in a hose or pipe somewhere. Another sign of a broken buried line is a soggy spot in your yard.

My meter box is filled with water! Am I getting charged for this leak?

If the water passed through the meter before leaking, the meter will register the leak and it will show up on your bill. For example, if the leak is in the service line running from the meter to your house, since this line is owned by the property owner, it is the property owner's responsibility to repair this leak. Once the leak is repaired, you may be eligible for a credit (see www.columbiasc.net/customer-care/utility-billing/plumbing-adjustments for details).

If the water does not pass through the meter before leaking, you will not be charged for the leak. Contact the City of Columbia at 803-545-3300, and we will address it.

I had a leak, and I've fixed it. Can I get assistance with my bill?

Customers may be eligible for a charge reduction when plumbing problems occur on the property. The amount of credit depends on the type of problem and the customer's past average use.

Before an account can be reviewed for an adjustment, proof of repairs is required. Your use must return to normal before a credit will be applied. Only 1 adjustment is allowed per 12 month period, and no more than 3 months of billing will be adjusted for any plumbing problem event. Additional rules apply.

For details, visit www.columbiasc.net/customer-care/utility-billing/plumbing-adjustments or call 803-545-3300 and speak to a Customer Care representative.