

## How to Find a Water Leak in Your House

In most cases the water line running to your home is "metered" for accountability and billing purposes. A leak on your line can be very costly. The following chart shows just how much water loss a leak can cause:

Water Loss In Gallons					
Leak this Size	Loss Per Day	Loss Per Month	Leak this Size	Loss Per Day	Loss Per Month
.	120	3,600	●	6,640	199,520
•	300	10,800	●	6,964	209,520
•	693	20,790	●	8,424	252,720
•	1,200	36,000	●	9,585	296,640
•	1,920	57,600	●	11,324	339,720
•	3,095	92,880	●	12,750	361,600
•	4,295	128,880	●	14,952	448,560

Yet even a very small leak can be found through trying a few simple techniques and can save you from a nasty surprise from your local utility company. If you have been notified that you have a leak, here are a few steps you can do before calling the plumber. The more you do, the less it will cost you in the long run!

### Method 1 of 6: Hot Water Tanks

Check the Pressure Relief Valve on the hot water tank. Sometimes these valves are plumbed directly into a drain and 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.

### Method 2 of 6: Toilets

Check the toilet for leaks by removing the top off the tank and listening very closely. If you hear any hissing at all, try to locate where it is coming from. If you locate the area where the leak is coming from, assess it and determine if you can fix it. If you can't, then call a plumber.

If nothing is noticeable, add some food coloring and put a couple of drops in the tank (not the bowl). Wait several minutes and if you have coloring in the bowl, you have a leak in the flapper at the bottom of the tank that is allowing water to seep through. At this point you can assess if you want to do the repair yourself, or call a plumber.

If you have more toilets, go ahead and repeat the process with each toilet to make sure you don't have more than one problem.

### **Method 3 of 6: Meter Line**

**If the toilets are fine, check the line running from the meter to the house.** While this may sound difficult, you can save money if *you* can locate the leak for the plumber.

- If you know you have a shut-off valve by the house, shut it off temporarily and check the meter by removing the lid and watching the dial on top of the meter.
- If you can't see the meter head, try digging around because they sometimes have dirt or grass covering the top of them. Once you locate it and the valve is turned off by the house, watch the meter to see if it is turning. If it is still turning, then the leak is between the meter and the house. That is, unless you have a leaking valve, and this is very common with these older bronze gate valves. Then, your leak may also be inside the house.
- At this point, walk the area between the meter and the shut-off valve. Look for signs of a leak such as: soft muddy areas, grass that is greener than the rest or growing much faster than other areas. If you see such an obvious sign, call the plumber or assess if you can make a repair yourself.

**If you have the valve shut off at the house and the meter has stopped moving, then the leak is somewhere in the house.** Try some other techniques to try to locate the problem.

### **Method 4 of 6: Hose Bibs**

**Try to locate a leak by the house.** This will require you to locate all the hose-bibs (hose-bibs are the pipes that you hook your hoses to, in case you were unsure!). Usually an average residence has one hose-bib in the front and one in the back, but be sure to find every one that you have and listen carefully.

- Once you have located them, take a screwdriver, preferably one long enough to give yourself room to work, and put the metal tip of the screwdriver directly on the metal part of the hose-bib. Put your thumb knuckle on the top of the screwdriver, and then place your knuckle on the side of your head, immediately in front of your ear. The sound will travel directly to your eardrum. The idea, here, is for the solid screwdriver to work like a stethoscope. This works for most metal valves, as well.
- Listen carefully for any sound emitting from the hose-bib. If you hear anything at all, remember where it is (perhaps mark it with chalk), and go to the next one. If the sound emitted gets louder at any of the other hose-bibs, then the leak is closer to that particular unit. Note that and contact your plumber. Giving the plumber this information will save the plumber loads of time in finding the leak, which in turn saves you money.
- If you survey all the hose-bibs and still find no sound, go into the house and follow the same process with the screwdriver on your house fittings such as faucets in sinks, shower valves, washer, hot water heater (be careful to avoid being scalded when working around the hot water heater). If you are still not sure, just contact the plumber.

### **Method 5 of 6: Other Leaks**

**Check the shower head for leaks.** It should be a fairly straightforward home repair if this is a source of leaking.

**Check the garden.** Look at hoses, taps, and drip irrigation systems

**If you have a swimming pool, it is important to check to see if it has any leaks.**

## Method 6 of 6: Near Enough is Helpful

**Recognize that in many cases a leak can be very hard to locate.** Not all of the leaks outlined in this article can be located and if you're not used to plumbing positioning, you may miss something easily. All the same, if you try these steps, you should be able to find an *approximate location* and this is a most valuable exercise in itself because it will help the plumber (many plumbers do not like searching for a problem so anything you can do they will appreciate), making it time saving for the plumber and that translates into savings for you.

### RUNNING TOILET

When you hear your toilet running, have you ever wondered how much water and money you're throwing down the drain? We have a story that might make you think twice!

We recently had a client call us asking how much water a constantly running toilet leaks? When we questioned his question, we found out that this particular client had just received a 3 month water bill for \$1,063! His normal 3 month bill was only \$143. The usage on this bill showed 90,000 gallons! With only two people living in the house, could this even be possible??

The answer is, yes! It can! Let us explain...

After talking to this client a little more, they explained that during this 3 month period, they DID have a running toilet for about 3 weeks. Three weeks, not a big deal right? Well, let's see! We'll take the WORSE CASE SCENARIO:

In this case, the running would be full-force, that is, the flapper valve is open and the tank is constantly draining. So let's say we're dealing with a standard 1.5 gallon toilet. We'll assume that it takes approximately 30 seconds for the tank to refill from a standard flush. So that's 1.5 gallons per flush or per 30 seconds, or 3 gallons per minute. Now, let's do some real calculations!

60 minutes per hour x 24 hours per day = 1,440 minutes per day  
1,440 minutes per day x 3 gallons of water per minute = 4,320 gallons of water per day  
7 days per week x 3 weeks = 21 days  
4,320 gallons of water per day x 21 days = 90,720!

I'd say it's definitely a possibility!

So let us give you our BIG TIP OF THE MONTH: Check your toilets regularly for any leaks or continuous flowing! And if you notice a problem, get it fixed quickly! We don't want you to have to face the same fate this client did with your next water bill, so now you know!

***Water costs money ... don't waste it!***

A dripping faucet or fixture can waste 3 gallons a day ••• a total of 1,095 gallons a year.