

# How to Locate Water Leaks

**Water leaks are not only a waste of a valuable resource, but equally as important, an undetected leak can easily result in a costly utility bill.**

The Dinwiddie County Water Authority (DCWA) is responsible for repairing leaks in the meter box and on the street side of the meter box. When a customer connects to DCWA's water system, a plumber makes a connection to the meter on the house side of the meter box, called a plumber's connection. Leaks at the plumber's connection and in all other house plumbing are the customer's responsibility to repair.

## Signs of a Water Leak

Water standing in a yard, water in or around a meter box, a toilet constantly filling when not being used, or an unusually high bill may indicate a water leak.

## Three Ways to Locate a Leak

To locate a leak in your water system, use these three steps in the following order:

- Check the water meter.
- Determine if the leak is in the home or underground.
- Locate the leak in the home.

## Check the Water Meter

The first step in checking the water meter is to make sure no water is being used in the home. If a toilet is being flushed, or a washing machine or dishwasher is being used, this test will not work. Everything in the house must be shut off.

Remove the cover on the meter box and observe the center sweep hand located on the meter register. When water is passing through the meter, the sweep hand will rotate in a clockwise direction. One complete revolution of the sweep hand equals 10 gallons of water. The dial face is divided into 100 increments around the outer edge. Record the location of the sweep hand. Wait 15 minutes and check the sweep hand again. A small leak may take several minutes for the sweep hand to noticeably move. If the sweep hand has not moved, there probably is not a leak.

Newer meters are equipped with leak detectors. This is a red triangle on the register face or the center of the sweep hand that will rotate when water is passing through the meter. Movement of the leak detector is more noticeable than the sweep hand when small amounts of water pass through the meter. If either the sweep-hand or the leak-detector dials are moving with no apparent usage of water in the house, you may have a leak.

If you have a gray 4" disk on top of your meter, you have a new digital radio read meter. In this case, contact DCWA at (804) 861-0998 and schedule a time for a technician to come out and interpret your meter. The technician will be able to come out and collect data for the past 90 days. With this data, it can be determined if water is constantly flowing through the meter and the consumption, in gallons, on an hourly basis.

## **Determine if the Leak is in the Home or Underground**

Locate the master valve. The master valve is usually located under the house in the crawl space or in a basement or utility room. The master valve is usually located next to the crawl space entrance. Closing the master valve shuts off the water entering the house. Close the master valve and check the meter. Typically, if the meter has stopped registering, the leak is somewhere in the house. If the meter continues to register with the valve closed, the leak is probably underground between the meter box and the master valve.

## **Locate Leaks Inside the Home**

Faucets, toilets and outside taps usually have an isolation valve located near the fixture. By closing this valve and observing the meter, the customer can isolate or identify the possible sources of leaks. Remember to open valves completely after you have completed each test.

### **Faucets**

A faucet leak is usually due to old or broken interior parts of the valve. In most cases, the entire fixture does not need to be replaced. Replacement washers and valves, available at a local hardware store, will probably solve this problem.

### **Toilets**

A toilet leak is the most overlooked type of water leak because it is not obvious. Unlike a faucet or spigot leak, you cannot see the toilet leak. Toilet leaks typically result in a greater waste of water at a higher rate than any other type of leak. To check for toilet leaks, remove the top from the toilet tank and listen for running water. If water is flowing into the overflow tube in the tank, the valve may not be cutting off completely. Adjust the cutoff point or replace the valve. If the flapper valve that closes after the toilet is flushed fails to close, or doesn't close completely, water will leak from the tank to the bowl. When this happens, the commode tank may refill and stop periodically. One way to determine if water is leaking from the tank to the bowl is to put a couple of drops of food coloring in the tank before you go to bed. Do not flush the toilet. If the water in the bowl changes color by the next morning, there is probably a leak in the toilet. Check the plunger ball, or the area around it, and the flapper valve at the bottom of the tank. Repair parts for most toilets are typically available from hardware stores or plumbing supply stores. If you are not comfortable making the repairs, a plumber may be called to complete the repairs.

### **Outside Taps**

When using water for the yard or to wash a car, ensure there are no leaks at the hose connection. Close the spigot tightly when finished. A dribbling hose in the garden or driveway can lead to a major waste of water and a high utility bill.

If you have any questions about your water or wastewater service, call the Dinwiddie County Water Authority at (804) 861-0998.