



RDOS Public Works

Outdoor Water Leaks?

How to detect leaks in outdoor water systems

If you have not located your leak from the check performed, consider a 'bucket test' in your auto filling pool/hot-tub or pond.

- Turn off the autofill
- Place a bucket or container on a stable spot without submerging it
- Use a large rock or brick to weigh down the container
- Fill it with water so it is the same level as the pool water
- Mark the water level inside the bucket
- Mark the pool water level on the outside of the bucket
- Wait at least two to three days to let natural evaporation occur

Compare the two water levels:

- If the pool water level (outside mark) dropped more than the bucket's water level (inside mark), you may have a leak and may want to contact a pool contractor.
- If the level changes are the same, only evaporation has occurred. Resume normal autofill operation.

Fountains and Water Features Check for leaks or cracks on water supply lines and pipes. Look for structural cracks or damaged basins. Adjust autofill to avoid basin overflow.



For more information on water meters, leak detection and water conservation techniques visit the RDOS web site:
[http://www.rdos.bc.ca/departments/public-works/water-systems/water-conservation/Water meters](http://www.rdos.bc.ca/departments/public-works/water-systems/water-conservation/Water%20meters)—<http://www.rdos.bc.ca/departments/public-works/water-systems/water-metering/>

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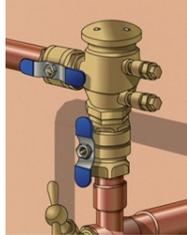
Cross Connection Control Program: <http://www.rdos.bc.ca/departments/public-works/water-systems/water-quality/cross-connections/>
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Some common leaks found outside the home occur in the **irrigation system**. A typical irrigation system consists of a backflow prevention device, valves, underground pipes, emitters and/or sprinkler heads and an irrigation controller.

A **backflow** prevention device protects drinking water from contamination due to backflow. Backflow can occur when the water system pressure decreases (such as in the case of a water main break). Begin your check for irrigation system leaks at the backflow prevention device, generally located near the house or irrigation shut-off valve.



Contact the RDOS for information on backflow prevention devices.

Inspect **irrigation valves** for signs of leaks, such as mud or standing water in the irrigation valve box.

Check sprinkler heads when they are not running. Continuous seeping often indicates a malfunctioning valve.

All Valves can fail over time or debris (rocks, dirt, etc.) can prevent the valve from closing properly.



Visually inspect **sprinkler equipment**: At irrigation start-up and throughout the season, look for missing or broken drip irrigation emitters or cracked tubing. Water should trickle rather than squirt from emitters.



broken sprinkler head & missing drip emitter

- Check seals between the neck and base of the sprinkler heads. (Water will seep out of a worn seal.)
 - Look for missing or broken sprinkler heads or cracked riser pipes.
 - Check for missing or broken bubblers or cracked riser pipes.
 - Inspect your yard for wet spots, small holes or depressions, as these may indicate an underground water leak.
- If you still suspect a leak, then conducting an 'isolation' test will be the next step.

An isolation test will systematically check all the supply lines to your property from the meter to the house and the landscape. There are several steps to conduct an isolation test. For more in depth instructions: <http://www.rdos.bc.ca/departments/public-works/water-systems/water-metering/>

Swimming pool water evaporation is normal. But, an autofill (automatic pool water leveler) can mask a leak. It will automatically replace water lost showing no visible drop in pool level.

Step 1— Check the pool and/or spa autofill for proper operation: Look at the pool water level. The autofill should keep the pool water level at the middle of the skimmer box opening. If the water level is too high, excess water can escape through gaps under the decking at the top of the pool or through the autofill crock (container in which the autofill sits). Check the autofill to see if it can stop the water flow. If your autofill is allowing water to flow through it, gently lift its float to see if the flow stops. Check the float. If set too high, it will cause a higher than desired pool water level.

Step 2— Check the pool and/or spa system equipment: Note pool level, and then turn on pool equipment. A drop in water level may indicate a leak.

Visually inspect equipment, especially around pipe joints. Walk from the pool equipment to the pool, to the water supply line (if you have an autofill) and around the pool. Look for any wet spots, small holes or depressions in the soil, as these might indicate an underground water leak. →