

Water saver tips



Know how to manually override (shut-off) your irrigation system for windy or rainy days.



Mulch around your flowerbeds, trees and shrubs to keep the soil moist. Grass clippings left on your lawn also act as nutrient-rich mulch.



Test your soil's moisture level with a long screwdriver. If the soil is very dry it will be difficult to push the screwdriver into the ground.

How to get the best performance out of your in-ground irrigation system.

- Set up the sprinkler to water early morning between 3 a.m. to 7 a.m. This will reduce water lost to evaporation during the heat of the day and when there is more wind.
- Check sprinkler heads for maximum efficiency. Regularly check to see if heads pop up correctly, spray evenly, and are free from damage or clogging vegetation.
- Check for leaks. Soft spots in your yard, water pooling or a strange hissing sound when your irrigation system is running are all signs of a leak.
- Control overlapping spray patterns and avoid watering hard surfaces such as sidewalks and driveways. (See zone illustrations #1 and #2.).
- Get ready for winter. Most manufacturers require that your irrigation system be drained before the winter freeze sets in. Follow their recommended procedures.

Wipe out overwatering. A healthy lawn only needs one inch of water over the week, including rain. Adjust your automatic irrigation system to reflect daily or seasonal weather changes.

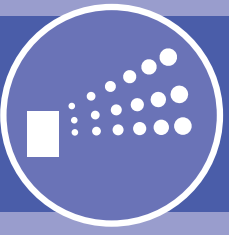
Water Managed Site Certification

The City of Calgary offers Water Managed Site Certification, recognizing systems that are properly installed, maintained and operated. For more information call 3-1-1 or visit calgary.ca/waterservices.

Protect your drinking water.

If you decide to use an in-ground irrigation system, you are required to protect your drinking water supply by installing a backflow prevention device on the water supply line to the irrigation system. The type of backflow prevention device required will depend on size and number of zones in your in-ground irrigation system. Backflow prevention devices are available at retail irrigation equipment suppliers and building material supply stores.

In-ground Irrigation Systems



In-ground irrigation systems can be an easy, effective way to water your lawn, trees, shrubs or garden provided the system is properly installed and maintained.

Consumers should know that even when an in-ground irrigation system is working properly, only 70 per cent of the water from an irrigation head makes it to a plant's root zone. Water can be lost to the wind, evaporation or the in-ground irrigation system's design, installation maintenance or schedule.

Eliminate overwatering.

The City's audits on residential in-ground irrigation systems have found that on average, lawns are being overwatered up to five times what is actually required (4.5 inches of water per week instead of the requisite one inch).

Overwatering costs more money and can result in the shortening of your plants' root systems (trees, shrubs and grasses) making them more susceptible to drought.

Find out if your in-ground irrigation system is working properly.

Step 1

Place several rain catchers evenly between each of your sprinkler heads (tuna cans and frisbees also work well).

Step 2

Turn the sprinklers on for 10 minutes

Step 3

Measure the amount of water in each rain catcher. Differences in the amount of water collected in each container indicate uneven water distribution over the test area.

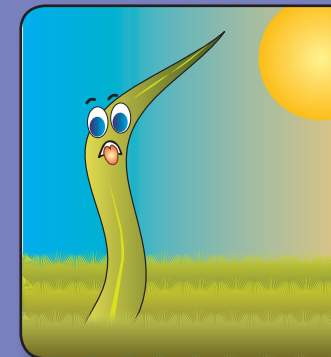
Step 4

Make the required adjustments or repairs to your sprinkler heads or contact a certified in-ground irrigation expert.



Overwatering: know the signs

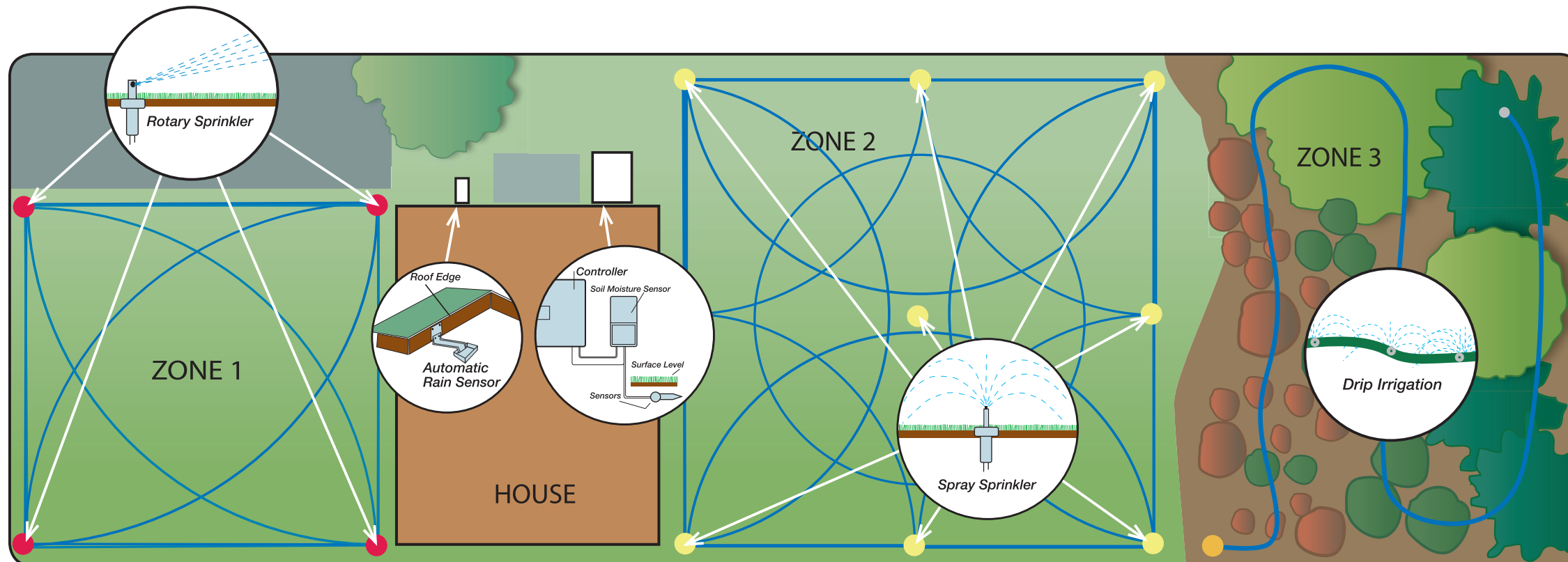
- Water always puddles in certain areas.
- Grass smells musty.
- Soil is soft and mushy.
- Mushrooms appear.
- Shallow roots.



Underwatering: know the signs

- Grass fails to spring back after being stepped on.
- Pushing a screwdriver into the soil is difficult.
- Grass feels warm in the evening, after the sun has set.

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Spray head

Terms to know

Automatic controller is a timing device that sends an electric signal to valves, telling them when to open and close as per a set irrigation schedule.

IA Certified Irrigation Auditor. An Irrigation Association (IA) Certified Landscape Irrigation Auditor (CLIA) analyzes landscape irrigation water use. These auditors collect site data, make maintenance recommendations and perform water audits. Through their analytical work at the site, these irrigation professionals develop monthly irrigation base schedules. Certification requires an examination and an Irrigation Association approved preparatory course.

Drip irrigation refers to any irrigation system that applies water to the soil very slowly. Currently, this technology is the most efficient from a water and energy use standpoint.

Evapotranspiration (ET) is the loss of moisture from vegetation into the air. ET refers to a combination of the evaporation of water from Earth's surfaces and transpiration, the evaporation of water from the surfaces of plants. The deficit between water available and water needed by a plant is the amount of water you need to add by irrigation.

Flow sensor detects the amount of water moving through an irrigation system. In centrally controlled systems the flow sensor can detect leaks or possible breaks in the system.

Head to head coverage is the spacing of sprinkler heads so that each sprinkler throws water to the next head.

Hydrozone is an irrigation area where all the watering influences are similar. Factors to be considered when setting up hydrozones would be plant types, sprinkler precipitation rates, wind, soil type and slope.

Master valve is the main valve for the irrigation system. When this valve is closed water will not be supplied to the irrigation system.

Rain switch/sensor prevents irrigation during, and sometimes after, precipitation.

Soil moisture sensor is an evolving form of sensor technology. Placing this sensor in the ground lets you know when water is needed at depth.

A few pointers before you install an in-ground irrigation system.

Consider using a certified professional.

Save yourself time, money and potential problems by ensuring your in-ground irrigation system is planned and installed by a certified irrigation designer.

Learn more about what to look for by visiting the Alberta Chapter Irrigation Association (irrigationalberta.org).

Determine your watering needs.

Your landscape and plants can help you determine your watering needs and the best in-ground irrigation system to use.

Use the proper sprinkler. For example, low-volume, low-angle, rotary or spray sprinklers (see zones 1 and 2) are recommended to water grass, while drip irrigation works best for plants and shrubs (see zone 3). Shrubs use about 1/3 less water than grass. Their deeper roots also require slower watering with more time to soak into the soil.

Sloping your landscape to let water run where it is most needed, and grouping plantings around irrigation needs can maximize the benefits of a system.

Always check the water pressure required to operate the irrigation system.

Get the most from an in-ground irrigation system.

Select an irrigation system designed to evenly distribute water to the watering area.

Choose controllers with adjustable watering schedules, moisture sensors, rain switches, wind switches or real time weather data.

Look for an irrigation system (central control system) that uses real-time climatic data received from a pager, phone, two-way radio or satellite. Combine this with a central control system where a professional water manager monitors and adjusts the irrigation program for your individual site. Investing in this type of system eliminates the need to watch the weather and adjust your controllers.



Rotary head



Drip irrigation

System types

Central Control System is a range of controllers from basic to the most advanced type of irrigation system. It uses real-time weather data to calculate the watering needs of your landscape. The system is remotely monitored and adjusted and automatically detects and controls leaks. More than 40 per cent of Calgary's irrigated parks use this type of system. Though there is an up-front financial investment, these systems save 25 to 50 per cent in water use and are about one-third less costly to operate than manual systems.

Standard Automatic System operates similar to a clock radio. The start time and length of the watering operation is programmed and it runs this program regardless of weather or damage. Running this system is less costly than a manual one but is less efficient and more money will be spent on water than with a Central Control System.

Manual Pop-up System has a number of underground sprinklers connected to manual valves. Someone goes on site and turns the valves on and off to start and stop watering. Manual systems are susceptible to running too long and wasting water.

Did you know? Purple pipe, purple sprinkler heads and purple-based irrigation heads signify that the in-ground irrigation system is using non-potable water to irrigate the landscape. Non-potable water does not (may not) meet drinking water standards. Sources could include collected rainwater, stormwater, reclaimed water, ground water or surface water.