

ENVIRONMENTAL Fact Sheet



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Home Water Efficiency: In-Ground Irrigation Systems

Having beautiful landscapes brings a great deal of pleasure to our lives and using in-ground irrigation systems to maintain those landscapes is a convenient way to ensure our lawns, shrubs, and flowers stay healthy. Unfortunately, many home irrigation systems are not designed properly, may not be operating as intended, and are not equipped with newer technology used to determine how much water a landscape actually needs. This often results in watering too often and too much. Not only is this a waste of water, energy, and money, but such watering practices can also prevent deep root growth and promote the growth of harmful fungi on the roots, making vegetation much more vulnerable. Water is also often wasted and landscapes unevenly irrigated as a result of lack of maintenance of irrigation systems. Broken or inappropriately spaced sprinkler heads are the main culprit of inefficient watering practices, while leaks and pressure issues can also pose problems. Irrigation systems are convenient, but the “set it and forget it” mentality is no longer acceptable in an age where there is great concern about our water and energy resources. There are many easy steps you can take to make sure your system is working efficiently or, if you choose, leave it to an irrigation specialist.

Source: EPA WaterSense



Give your system a check up.

The first time you turn on your irrigation system for the season, take an hour to make sure all is running smoothly. Do this several more times throughout the season to ensure efficient watering and a beautiful landscape.

Who has control?

- ✓ Make sure the controller is functioning correctly. If you do not know how to program your controller, take the time to learn or ask a professional for assistance. You can also visit the Water Use it Wisely website for instructions at <http://wateruseitwisely.com/100-ways-to-conserve/outdoor-tips/landscape-care/timing-is-everything.php>.
- ✓ Just because it's “time” to irrigate, doesn't mean it's time to irrigate. Install a “smart” controller to override the standard clock controller. Smart controllers utilize weather and soil moisture information to ensure your landscape gets what it needs when it needs it without wasting water, energy, or money. Inspect controllers once a month to make sure they are working properly.
- ✓ If you choose to only have a time-based controller, make sure to adjust the time and day and set up watering zones based on vegetative needs. To determine time intervals for watering your landscape, go to the fact sheets webpage at www.des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm and scroll to WD-DWGB-26-20, “Home Water Efficiency: Lawn Watering and Maintenance.”

Turn heads with a greener landscape.

- ✓ If your sprinkler heads are misting rather than spraying droplets, the pressure in your system is probably too high and you are wasting water to wind and evaporation. The solution is to adjust or install a pressure reducer at the beginning of your system or install pressure regulating heads.
- ✓ If your sprinkler heads are not popping up completely or rotating as they should, your sprinkler system may not have enough pressure and may need a booster pump or the removal of a few sprinkler heads in each zone. If only a few heads are having a problem, they may need to be cleaned. This may require giving the sprinkler head a little jiggle to loosen up any debris, a more thorough cleaning, or replacement of the nozzle.
- ✓ If sprinkler heads are bent sideways, reposition or replace the head. Sprinklers must sit straight up to keep spray even and to keep the spray angle low to prevent wind from blowing away the water.
- ✓ If sprinkler heads leak when the sprinkler system is off, the sprinkler valve may not be closing properly. Or, if the sprinkler head is in a low area of the system, water may be flowing back down to the sprinkler head. The sprinkler valve may need to be cleaned or a backflow prevention valve installed.

Head to head coverage.

- ✓ Check that each sprinkler head is spraying to the next head to ensure adequate coverage. If it is not, try adjusting the screw on the top of the head or replace the nozzle with the appropriate size nozzle. An irrigation professional can also conduct an audit of your system that will include a detailed assessment of coverage.
- ✓ If sprinklers are spraying directly onto pavement, water is being wasted. Adjust sprinkler heads so they are directed only at vegetation, reduce system pressure, adjust the pressure screw on the sprinkler heads to keep flow only on vegetated areas, or replace heads with the correct nozzle size. Manufacturers make nozzle sizes to fit strips and narrow areas.
- ✓ If while watering, water is running off the vegetative surface and onto pavement, you are probably watering too much. See the fact sheet WD-DWGB-26-20, "Home Water Efficiency: Lawn Watering and Maintenance."

Are your sneakers soggy?

- ✓ If sections of your lawn have become extra moist or soggy, you are either watering too much or there may be an irrigation line leak. If you have a water meter, you can easily determine if there is a leak by writing down the meter reading, not using water for an hour or two, and then taking another meter reading. If the meter reading has changed, you have a leak. Another indicator of a leak in your system is a loss of pressure. Pressure loss might result in sprinkler heads not popping up, rotating, or spraying as far as usual.

For Additional Information

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit the DES Water Conservation Program webpage by going to www.des.nh.gov, clicking on the "A-Z" list and scrolling down to "Water Conservation."

References and Resources:

U.S. EPA WaterSense www.epa.gov/watersense/

Irrigation Association <http://www.irrigation.org/>

Colorado State University Extension <http://www.ext.colostate.edu/pubs/garden/07239.html>

University of Florida IFAS Extension <http://edis.ifas.ufl.edu/ae451>

Note: This fact sheet is accurate as of March 2013. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.