

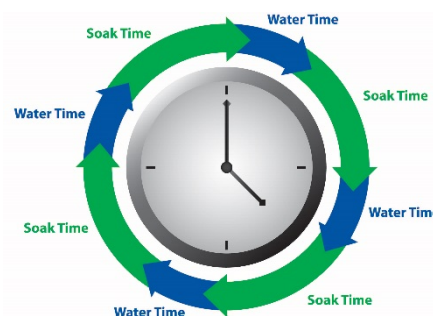
Water Conservation Tips

Regions that are experiencing drought are placing significant restrictions on irrigation in order to conserve water. Irrigators must comply with these restrictions to avoid fines and other penalties.

Baseline irrigation controllers offer the most comprehensive tools for managing valuable water resources during water restrictions, but if you are running your irrigation with some other irrigation controller, you may still be able to program the controller to operate within the restrictions while maintaining the health of your landscape. The following tips can help.

Water outdoor landscapes in a manner that prevents excess runoff

Even perfectly designed irrigation systems typically put down more water during a cycle than the average soil can absorb. One way to eliminate runoff and standing water while still applying the required amount of water is to use soak cycling to break the total run time for a zone into shorter water “cycles” (timed water applications) with “soak” periods in between to allow time for water to soak into the soil before applying more water.



Soak cycling applies water slowly and gives that water time to be absorbed. This method promotes effective watering by allowing the water to be distributed deeper in the soil profile.

The BaseStation 1000 and BaseStation 3200 irrigation controllers are designed to easily enable soak cycles in the zone settings. And the BaseStation 3200 will even calculate the cycle time and soak time settings for you.

Additional Information

[Understanding the Benefits of Soak Cycling](#)

Adjust the controller programming to deal with limited watering days

In typical implementations, water restrictions limit the days and the time of day when you can irrigate. The days and times can change as the water restrictions go through different stages.

Obviously, all irrigation controllers allow you to adjust program schedules in order to deal with these restrictions, but if you have many programs, these changes can be tedious. Consider replacing your controller with Baseline controller to give you the most control when you are managing a site during water restrictions.

Water Conservation Tips

In addition to offering full flexibility with watering days and start times, programs in Baseline's irrigation controllers are based on configurable "water windows." Water windows are used to select when watering will or will not be allowed. If water restrictions in your area limit your watering days to Tuesday and Saturday each week, you would "close" the water window on the other days of the week and make sure that your program start time and start day is for a time when the water window is open.

Additional Information

[Baseline Solutions for Dealing with Water Restrictions](#)

Avoid over-watering to compensate for limited watering days

When water restrictions are in effect, people often apply an excessive amount of water on a watering day in an attempt to hold the landscaping until the next watering day. Unfortunately, this technique wastes water.

The amount of water held in soil can be measured. When nearly all of the spaces between soil particles are filled with water, the soil is at saturation. This amount of moisture is harmful to plants because it cuts off their supply of oxygen, and, in effect, drowns them.

When the soil is moist, but all excess water has drained, the soil is at field capacity.

Maximum allowed depletion (MAD) is the soil moisture level when irrigation needs to start. In most cases, the maximum allowed depletion level is just before the plants begin to show visible signs of stress.

To irrigate properly, you need to turn on the water at the MAD level and then turn off the water when the soil in the root zone of the plants reaches field capacity.

This sounds straightforward enough, but you usually can't determine the moisture level at the root zone by observing the surface of the soil. Depending on the predominate type of particles present in the soil, water will either penetrate and drain quickly (as in coarse-textured soil made up largely of sand), or water will penetrate and drain slowly (as in fine-textured soils made up largely of silt or clay). You also need to consider factors such as compaction, soil depth, layering, or slope, and then it becomes obvious that estimating plant available water capacity is quite complex.

The Baseline biSensor™ soil moisture sensor makes the process easy because it measures the moisture content in the soil and tells the irrigation controller when to turn on and when to turn off.

Additional Information

[Watering with Soil Moisture Sensors](#)



Measure instead of guessing or estimating

Weather-based (or ET-based) irrigation is a method used by some irrigation controllers to actively adjust the watering schedule based on external data. These controllers use a variety of methods to gather data and perform complicated calculations in an attempt to estimate the loss of moisture from the root zone and adjust the watering schedule accordingly.

Rather than trying to estimate soil moisture depletion based on a complicated calculation, Baseline's soil moisture sensors actually measure soil moisture levels where it matters — in the root zone of the plant. The sensor is capable of measuring volumetric soil moisture changes of less than 0.1 percent, and the readings are within ± 3 percent of the actual volumetric soil moisture content.



A Baseline's soil moisture sensor is the best tool for water conservation because the measurements tell the controller when to start and when to stop irrigation. When your watering days are limited, it's important to avoid guessing or estimating.

Additional Information

[Comparing Smart Irrigation Technologies](#)

Bring the power of a Baseline biSensor to any irrigation system

If you can't upgrade your irrigation controller to a 1000 or BaseStation 3200, you can still employ the power of a Baseline biSensor™ soil moisture sensor with a WaterTec S100.

Baseline's WaterTec S100 is an add-on unit that works with just about any existing irrigation controller. The WaterTec's soil moisture sensor works over the existing irrigation control wire you already have in the ground. You can simply bury the sensor in the landscaping near a valve box, run the wire to the valve box and connect it to the existing valve wires.



The WaterTec S100 can reduce water use by up to 62 percent in a typical irrigation system. Baseline's patented soil moisture sensors not only save water, but they also help provide the right amount of water for your landscaping, which will make your plants much healthier.

Additional Information

[WaterTec S100 Technical Specification](#)

[WaterTec S100 User Manual](#)