

CONSERVATION  
Connection News

## 2021 LANDSCAPING DESIGN TRENDS ARE WATERWISE

Many of the latest landscaping trends are taking us back to nature with low-maintenance, watershed-friendly and WaterWise designs. Top designs include using native perennials and trees, pollinators, raingardens, edible plantings, smart technology, composting for healthier soils and outdoor living spaces with permeable hardscapes. While components of a traditional landscape can still be part of a stylish landscape, the key is in putting it all together in balance with the climate we live in. To get a feel for how these key garden elements can work together, link to the EPA [Water Budget Tool](#), plug in the required design criteria, and calculate just how much water your design will require. Calculating cost estimates for property owners/developers that include water budget (water savings) data can create a major selling point for WaterWise landscapes. As this trend continues, you will notice more demand for WaterWise gardens that are rich in color, texture, provide function and complement the lifestyle of those who live within them.

### Get Ready, Get Set and Go!

Spring is here! As our landscapes come back to life it's time to re-activate the irrigation systems that keep lawns and gardens thriving. Be it a native landscape, a xeriscape, or a more traditional landscape, some level of supplemental irrigation will be needed to keep a landscape healthy. To make this possible the city of Bend produces up to 22 million gallons daily during peak season for outdoor use alone. However, water is a finite resource. The way we use and manage our water now will have a profound effect in providing an ample supply for the future.

Irrigation systems are dynamic. Efficient operation requires a good eye along with routine maintenance. When summer flips its switch, and everyone is

in the midst of the annual foot race to keep up with demand, there isn't always time to give irrigation systems the attention they need. That makes right now a good time to perform an irrigation check-up. Following are a few simple ideas to help you use water more efficiently. For a full irrigation system check list [visit waterwisetips.org](#).

#### BE IN THE KNOW

Irrigation scheduling is not a one size fits all exercise. You need to know the precipitation rate of each sprinkler station and understand the specific plant water need of what each station is watering. The WaterWise team recommends setting an irrigation schedule to meet the most demanding part of the year and using the

percentage adjust feature to increase or decrease runtime as seasonal demand changes. Better yet, update your customers existing controller to a WaterSense labeled controller and those adjustments that match application rate to plant water need are done automatically, every single day.

#### BE OBSERVANT

A dry spot in the landscape appears for a reason. Some dry areas may not get any more water no matter how much sprinkler runtime is increased. Take a look and ask: is the area dry because coverage is blocked by a maturing landscape, are sprinklers obstructed because they are low or tilted, is the sprinkler adjusted correctly, or is the sprinkler spacing providing

uniform coverage? These are all common problems that require starting up the irrigation system and doing a visual inspection to ensure everything is operating efficiently.

#### BE COMPLIANT

Guidelines for the use of water are not uncommon. The majority of water purveyors throughout the western US have created regulations regarding irrigation practices and the use of water. For the City of Bend, these guidelines are designed to promote the responsible use of water, maintain critical flows throughout the city, and conserve water resources for future use. The full [Code 14.20 Use of Water](#) is available online.

# SAVING WATER WITH SMART CONTROLLERS

The EPA estimates that a WaterSense labeled irrigation controller (Smart Controller) can save the average American home up to 15,000 gallons of water annually. There are generally two types of smart controllers that have earned the WaterSense label and are certified by the EPA WaterSense program; weather based controllers and soil moisture based controllers. The fundamental differences between the two types are weather based controllers make runtime adjustments based on how much water is lost through evapotranspiration (ET), while soil based controllers measure the actual moisture content of the soil root zone to make runtime adjustments. Smart irrigation controllers have proven to lower water use, but getting a smart controller to irrigate correctly isn't as simple as just hooking up the controller and walking away. Use the following tips to help dial in each type of controller.

## SOIL MOISTURE BASED CONTROLLERS

Follow manufacturer instructions for the placement and burial of soil moisture sensors. Burying the sensor at the correct depth is critical



and differs depending on type of sensor and what is being watered. Caution should be taken to avoid areas that may collect additional moisture due to factors outside of normal irrigation coverage. Examples include overspray from neighboring properties, low lying pockets, areas adjacent to impervious services, within five feet of a sprinkler and areas of high traffic and compaction.

## WEATHER BASED CONTROLLERS

There are generally three types of weather based controllers. All rely on Evapotranspiration data (ET) to calculate how much water must be applied to replace what is lost by the plant on a daily basis.

**Signal based:** Weather data (ET) is collected from publically available sources or from agreements made with private weather station networks.

**Historical ET:** Uses preprogramed data based on historical weather data for a specific region (i.e. zip code). These controllers can be modified with an onsite sensor that measures solar radiation or temperature to capture real time changes occurring at a specific site.

**On site ET data:** Uses an onsite weather sensor that calculates daily ET rates to adjust runtimes. The location of onsite weather sensors should be in an area with open sky, away from

obstructions and in full sun. The unobstructed roofline of house is a good location.



Unlike soil sensor based controllers which restore soil moisture to a specified level regardless of sprinkler application rate, ET based controller rely on key program settings to deliver the correct amount of water needed by plants.



Smart controllers have different input variables depending on brand. One of the most important settings is getting the correct precipitation rate for each sprinkler station. Common default settings, which give a general precipitation rate based on a sprinkler type (i.e. spray, rotor, drip) may or may not represent the actual precipitation rate of a sprinkler station in the field. It may take a few visits to get the controller to deliver the right amount of water for each sprinkler station.

For an interesting look into

the effectiveness of weather based and soil based smart controllers you can view this presentation sponsored by the Water Research Foundation: [Smart Irrigation Controller Evaluation](#)

## WaterWise Field Day in July

The WaterWise Team is planning to host a WaterWise Field Day at Hollinshead Garden this July for Smart Irrigation month. This event will help homeowners learn about climate appropriate plants, efficient irrigation and offer landscape design help.

A call to our local designers A WaterWise landscape starts with a well thought out design, which incorporates ecological and social function, aesthetic appeal and limited use of resources. Are you a local designer that creates these WaterWise spaces? If you are willing to represent your business and donate your talents to inspire homeowners in developing their outdoors spaces this July at our WaterWise Field Day event, we would like to hear from you. Please email us at [conservation@bendoregon.gov](mailto:conservation@bendoregon.gov) for more information.



### Accommodation Information for People with Disabilities

To obtain this information in an alternate format such as Braille, large print, electronic formats, etc. please contact Utility Staff at: [Utilities@bendoregon.gov](mailto:Utilities@bendoregon.gov) or 541-317-3000 ext 2; Relay Users Dial 7-1-1, and fax: 541-317-3046