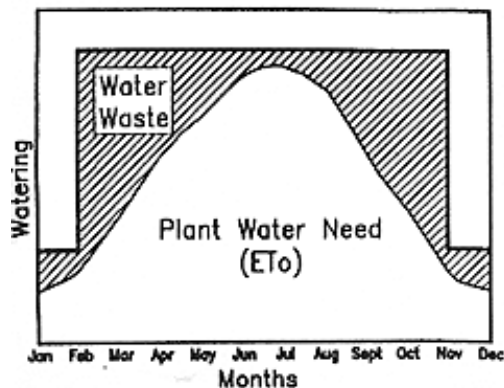


## Evapotranspiration (ET) Explained

**Evapotranspiration**, or **ET**, is the combination of water that is lost from the soil through **evaporation** and through **transpiration** from plants as a part of their metabolic processes. **Reference evapotranspiration**, or **ET<sub>o</sub>**, is simply the amount of water needed by a particular plant—in this case, well-maintained, well-watered turf grass. The graph below illustrates the concept. ET<sub>o</sub> is represented by the white area labeled "plant water need." Notice that as the days get longer and warmer from March to July, ET<sub>o</sub>, or the plant's need for water, gradually increases.



The shaded area represents a very common, but incorrect, watering practice, where the irrigation system is turned on full bore around March when rain usually ends. The system is then left running for peak summer water needs until well into the fall when it begins raining again. In the fall, though the afternoons may be warm in Marin, the days are much shorter and the growing season is ending for most plants. Therefore, plants need much less water.

The most efficient irrigation scheduling technique is to readjust the system run times to match the actual plant water needs, as shown by the curve on the chart. The shaded corners represent wasted water and money.

Based on actual weather conditions, we evaluate how much water is needed to replace the water that is lost from the soil and make this information available on our website. Sometimes it's hotter, colder or rainier than in an "average" year of weather. That's why we monitor weather information including temperature, humidity and wind. You can obtain weekly ET<sub>o</sub> information and suggested runtimes at [www.marinwater.org](http://www.marinwater.org) - the web site will provide you with the actual measured ET<sub>o</sub> for the previous seven days and the number of minutes to run your spray or drip irrigation system.

You also can sign up for our "Weekly Watering Schedule" email to have the ET<sub>o</sub> information sent to you every Friday morning, along with helpful water-smart garden tips.

**If you have questions, please contact the Water Conservation Department at (415) 945-1520 or [conservation@marinwater.org](mailto:conservation@marinwater.org).**