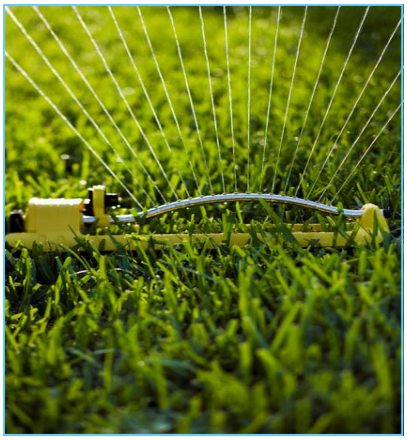
Smart Irrigation Controllers

Situation



Irrigation of lawns and gardens during the summer months creates a large demand on our water supply. Through the installation of Smart Irrigation Controllers, it is possible to better manage water use, thereby maintaining lawns and gardens without over watering. Smart Irrigation Controllers are irrigation clocks that automatically adjust irrigation run times in response to environmental changes. Smart Irrigation Controllers use sensors and weather information to manage watering times and frequency. As environmental conditions vary, the Smart Irrigation Controllers have the ability to turn off sprinklers automatically during rain, high wind, or low temperature. Smart Irrigation Controllers reduce outdoor water use by an average of 15 to 30 percent and can reduce over watering, which can cause fungal disease and insect problems.

Action

New Jersey Water Savers conducted an experiment at the Thompson Soccer Field in East Greenwich Township to assess the effectiveness of Smart Irrigation Controllers.

The soccer field has two existing irrigation controllers, one on each side of the access road. One of the existing irrigation controllers was replaced with a Smart Irrigation Controller to serve as a test site. The other time-based irrigation controller remained in place to serve as a control site.

Installation of a Smart Controller at Thompson Park Soccer Field in East Greenwich Twp., NJ

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Impact

During Fall 2010, water usage from both sites (i.e., the site using the new Smart Irrigation Controller and the site using the existing time-based controller) will be measured to determine the water savings associated with the use of this advanced technology.

By upgrading to this advanced technology, it is expected that East Greenwich will save both water and electricity by running the irrigation systems less frequently, in addition to enjoying less operational and maintenance needs from the township's staff. The actual water savings from the field using an irrigation system with a Smart Irrigation Controller compared with a field relying on a time-based irrigation controller will depend on many factors, particularly the parameters used to determine irrigation timing and the amount in the Smart Irrigation Controller. The results will be quantified to determine the actual water savings. In addition to saving the municipality time and money, the installation of the Smart Irrigation Controller at the soccer fields will serve as an excellent example for the community to see the efficiency of this technology.

New Jersey Water Savers Partnership

New Jersey Water Savers is a partnership between the Rutgers Cooperative Extension Water Resources Program, the New Jersey Department of Environmental Protection, and the United States Environmental Protection Agency. This partnership was created to provide leadership to promote water conservation throughout New Jersey. For more information on our partnership efforts, visit us at *www.water.rutgers.edu*.

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