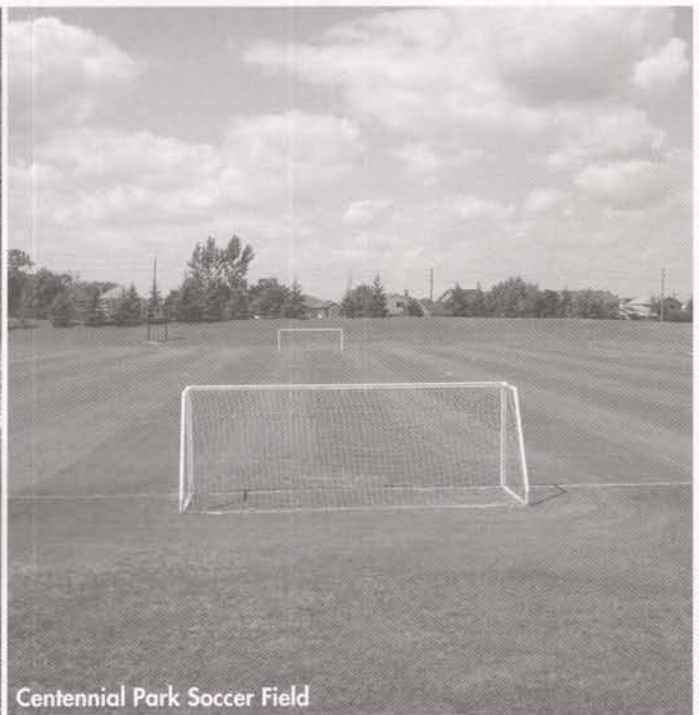




McNally Street Park Soccer Field



Centennial Park Soccer Field

ENVIRONMENTAL

YOU CANNOT MANAGE WHAT YOU CANNOT MEASURE

MANY IN THE INDUSTRY HAVE ENDORSED THE SWAT™ CONCEPT AS THE STANDARD WATER CONSERVATION METHOD

The *Irrigation Water Efficiency Pilot Study* was commenced in July, 2005 to evaluate a weather based computer controlled irrigation system by utilizing a SWAT™ technology controller - Smart Water Application Technologies™. An Irrigation System Assessment and Irrigation Water Efficiency Assessment were completed to determine the operational performance, identify any deficiencies and calculate on-site water usage of existing irrigation systems. Data collected included monthly water meter readings, irrigation schedules, daily evapotranspiration rates (ET), turf conditions and soil moisture.

Two irrigated sports fields within the City of Guelph were chosen for the study, Centennial Park soccer field and Hastings Stadium baseball diamond. Centennial Park soccer field was upgraded by replacing the existing conventional irrigation controller with a SWAT™ technology controller.

Two irrigated sports fields within the Town of Halton Hills were also chosen for the study, McNally Street Park soccer field

and Berton Blvd. Park soccer field. McNally Street Park soccer field was upgraded by replacing the existing conventional irrigation controller with a SWAT™ technology controller.

SWAT™ technology automatically adjusts controller run times throughout the season. These controllers relied on local weather stations to automatically calculate the need for irrigation based on daily and weekly evapotranspiration (ET) rates required by the sports field turf.

In order to compare SWAT™ technology to the previous conventional controller, conventional fields were designated the reference fields. For example, Berton's irrigation schedule was superimposed onto McNally Street Park to simulate the comparison of SWAT™ technology to a conventional controller. The Berton controller remained under the management of park staff and field notes were recorded to log changes in irrigation schedules. Using this method of comparison, McNally Street Park would have watered 43% more using the Berton Blvd. Park conventional controller schedule.

Summary

Although the adoption of SWAT™ technology has been slow, much of the irrigation industry has endorsed the concept as the standard method by which to conserve water. But technology itself without measurement will not be enough in order to calculate the rate of return. As a wise irrigation specialist once said: "You cannot manage what you cannot measure."

SWAT™ technology automatically adjusts controller run times throughout the season.

Acknowledgements

My sincere appreciation and thanks to Rakesh Mistry from the Town of Halton Hills and Ian Haras from the City of Guelph for their cooperation and vision to participate in a project that is on the forefront of what is soon to become common place irrigation technology. ♦

~ Gregory Snaith, P.Eng., President, EnviroIrrigation Engineering Inc.