measure . manage . monitor

smart watering systems

Wynford Place - Brookfield Residential

Toronto, Ontario • 2011

Water Saved to Date: 9,349 m^3

CO2 Offset to Date: 1,870 Kg

Dollars saved to Date: $16,424.00

Project Overview:

SMART Watering Systems was approached by management at 75 Wynford Heights Cres. in Toronto over concerns of water waste. The manager was convinced there must be a better way to reduce landscape irrigation water use. In 2008 SMART Watering Systems performed a comprehensive assessment of the irrigation system including; metering flow rates, pressures, inventory of equipment, testing infiltration rates and itemizing plant types and water requirements.

The assessment revealed several unaddressed pipe leaks, damaged/missing sprinklers and a system over-pressurized by at least 50%. Compounding these issues was an inoperative rain-sensor, sprinkler heads with unmatched precipitation rates and a schedule applying more water than the landscape required at a rate higher than the soil could absorb.

In order to correct the water use SWS recommended and implemented irrigation products to match precipitation rates, reduce over-spray and regulate pressure within each irrigation zone. A centrally controlled irrigation management system was installed to manage and monitor water flow and identify and control system leaks in the aging system.

The new control system allowed SMART Watering Systems to write and adjust appropriate irrigation schedules based upon local weather data and plant requirements and to manage the system in real time saving water, labour, and creating a healthier more disease resistant landscape.

This investment in water conservation paid for itself in one irrigation season with water savings of 76%.

Conservation Solutions Implemented:

Control Package - The Toro Sentinel Irrigation Management System using 1 satellite controlling 7 zones of irrigation that are monitored & controlled remotely by SWS staff.

Irrigation system efficiency improvements - Traditional spray head nozzles were replaced with Hunter MP Rotator rotary nozzles and Rainbird Rotary nozzles to minimize water waste resulting from over-pressurization.

Sensors on site - A Data Industrial water flow meter and ET data provided from local weather stations.

every drop counts

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