Overview

Customer:
Alan Driedger,
Water Manager

Description:
Manages irrigation for over 150 acres with 75 controllers on 50 sites

Service Area:
AWS Irrigation Management Inc.,
Guelph, Ontario, Canada

Central Control:
Maxicom®

AWS Irrigation Management Inc.
Guelph, Canada

“Thanks to Maxicom², we were able to save nearly $2,500 per acre over a typical system and pass huge savings onto our clients.”
—Alan Driedger, Water Manager, AWS Irrigation Management Inc.

What is Water Management?

Professional Water Managers provide contract irrigation system monitoring for their customers. Effective water management of a site is critical to creating and maintaining a beautiful landscape, and can save money by delivering just the right amount of water required by the landscape, when it needs it. Sound water management requires solid technical expertise and proven industry-leading technology. Professional Water Managers can achieve the results their customers desire because they are extensively trained, are experts in irrigation control technology, understand how environmental factors impact the landscape, and are vigilant, ensuring the irrigation system operates at peak efficiency.

The Business

AWS Irrigation Management Inc. (AWS) is a team of highly experienced irrigation contractors in Guelph, Ontario, Canada. They provide water management services using the Maxicom® system. With a current base of 50 customers and 75 controllers, AWS manages the irrigation
needs for over 150 acres of property. Their clients include corporate campuses, retail stores, townhouse complexes, estate homes, commercial buildings and a retirement community. The City of Guelph is a community of over 100,000 people located in the heart of southern Ontario, just 100km west of Toronto. The principal water sources for the City of Guelph are natural springs and wells.

**The Challenges**

*Drought Conditions* – Over the past years, the City of Guelph has received significantly lower than normal rainfall. Reaching as low as 60% of normal over the summer months.

*Strict Water Conservation Measures* – The City of Guelph has implemented watering bans for residents including not watering established lawns and limiting the watering of trees, shrubs, flowers, and gardens to alternate days and approved times.

*Water Management Business Practices* – As compared to a typical central control system serving one customer, a Water Management business must cater to the needs of multiple customers with varied sites and irrigation demands. The central control system must be managed to ensure the optimum control for all customers.

**The Answer: Two Maxicom® Central Controllers and a Rain Bird® WSPRO Weather Station**

For their water management business, AWS uses two Maxicom® Central Controllers, one managing systems directly connected to a Cluster Control Unit (CCU) and one communicating to CCUs on remote sites using phone modems. Both Central Controllers are linked to a Rain Bird® WSPRO Weather Station. The six key ET values (wind run, relative humidity, rainfall, solar radiation, high temperature, and low temperature) are continuously monitored for the City of Guelph and the surrounding region. A modem at each Maxicom® Central Controller automatically dials into the weather station every 24 hours and downloads all critical data, allowing Maxicom® to make subtle or considerable changes to irrigation outflows by adjusting the runtimes for each site. AWS is also using 900 Mhz Spread Spectrum radio and ethernet communication for its various Site-Sats.

**The Results: Over 17 inches of irrigation saved year-over-year**

In 2002 and 2003, AWS reduced irrigation during the April to October watering season by up to 17 inches as compared to a typical system through the use of Maxicom® ET-based irrigation. That’s nearly $2,500 per acre (in regional prices). To date, Alan estimates water savings since 2002 at 1.5 billion liters of water. The savings are even more dramatic if you take into consideration the ability of the system to shut down in the event of a problem such as a broken pipe or vandalism, preventing needless water waste and landscape damage. These savings are passed on to the customers in the form of reduced water bills. The savings will only increase as water continues to become more expensive during periods of drought.