

Mountain Equipment Co-op, Burlington, Ontario

**IRRIGATION ENGINEER:**

Principle Water Resources Inc.

ARCHITECT:

SMV Architects

LANDSCAPE ARCHITECT:

ENVision

LEED CONSULTANT:

Enermodal

GENERAL CONTRACTOR:

PCL Constructors Canada, Inc.

IRRIGATION CONTRACTOR:

TTM Irrigation

COMPLETION DATE:

November 2008

RAIN BIRD SALESPERSON:

Mike Ross, Turf Area Manager

PRODUCTS USED:

- ESP-LX Modular Controller
- ET Manager™
- AR, GB Series and PGA Series Valves
- RSD Series Rain Sensor
- XCZ Dripline

PROJECT OVERVIEW:

Mountain Equipment Co-op (MEC) is a leading supplier of outdoor gear, clothing and camping equipment. In designing an irrigation system for the company's Burlington, Ontario site, an extensive project team was charged with reducing potable landscape water use by 100 percent, thus fulfilling LEED® credits for water efficiency. Featuring two cisterns, the recommended system design would capture and reuse rainfall for landscape irrigation, as well as toilet flushing.

CHALLENGE:

In designing and installing the MEC irrigation system, the project team faced numerous challenges, from managing a multitude of micro-climates to warding off the threat of pest infestation. With those and other considerations in mind, the irrigation system would need to prevent under- or over-watering, minimize costs and meet LEED® Gold Certification, all while ensuring efficient system operation through accurate reporting and monitoring.

SOLUTION:

Through weather-based control and zone-specific programming, the site's ET Manager™ ensures each micro-climate receives the right amount of water when and where it's required. Not only does this approach reduce water consumption, it promotes healthy plants and prevents pest infestation. Furthermore, the ET Manager™ logs all water use, enabling continual soil moisture analysis. Alarms on the controller notify the user of any concerns, such as pipeline breaks, resulting in time and money savings. Lastly, water-efficient Rain Bird components, such as low-volume dripline, help the site reap the additional water savings necessary to receive LEED certification.

COST AND WATER SAVINGS:

As a result of ET Manager™ and weather-based control, the site has enjoyed annual water savings of 78 percent or 791,352 litres—equating to more than \$1,500. By combining weather-based control with rainwater recycling, the site has raised its annual water savings to 100 percent or 1,014,554 litres, the equivalent of nearly \$2,000. In addition to saving water and money, ET Manager™ has saved the site's maintenance staff time by minimizing the need for manual adjustments to the watering schedule.