

Calgary Water Centre

The City of Calgary 2005–2008

Calgary Water Centre is the new home for The City of Calgary Water Resources business unit. The building is an architectural award winner and an anchor for the Manchester Yards redevelopment area overlooking the Elbow River and Stampede Park. Calgary Water Centre is a LEED®-NC Platinum-level candidate project.

The landscape emulates the foothills of Southern Alberta with prairie grass and drought-hardy indigenous plant material. Roof downspouts lead to runnels formed to resemble streams, which collect rain water in wetland zones that filter naturally into a cistern located in the underground parkade.

ion collaborated in a multi-disciplinary team to size the cistern, design irrigation, administer construction and attain coveted water efficiency credits required for the building rating application. **ion**, with the civil and mechanical engineers, modeled the site water balance of the potential collection area runoff compared to the peak and seasonal irrigation requirements to attain water efficiency credits WE1.1- Reduce Landscape Water by 50% and WE1.2- No Potable Water.

Popup sprinklers with rotary stream nozzles, modeled to exhibit Distribution Uniformity of 85%, were incorporated for economy without compromising efficiency and drip/micro-irrigation was used extensively. The satellite controller communicates with the irrigation central control network employed by The City of Calgary Parks.

The estimated annual potable water savings due to high-efficiency irrigation and rain harvesting are 4,203m³ at a 2008 opportunity cost of \$5,127.

