



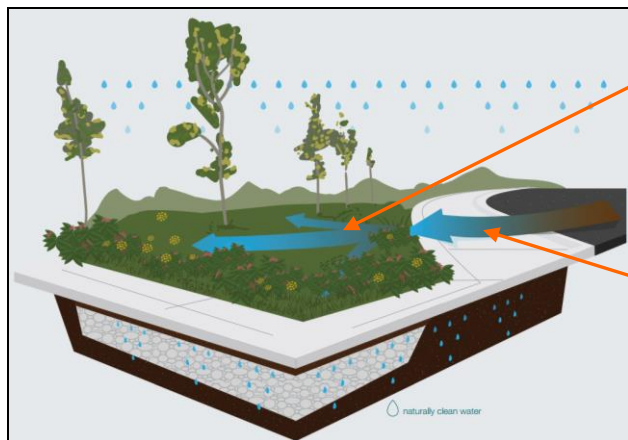
Lakeside Park

Location: Mississauga
 Constructed: 2011



Project Overview

The City of Mississauga’s 25 acre Lakeside Park features many innovative green features including a pervious concrete parking lot, green roof, bioswale (rain garden) and splash pad with water reused for park irrigation. CVC, in partnership with the City of Mississauga, is evaluating the performance of the bioswale.



Bioswale

The bioswale collects stormwater run-off from the parking lot and cleans the water through an engineered soil mixture and selected vegetation. In the bioswale, the interaction of plants, soil and natural microbes remove pollutants to improve the quality of water flowing back into Lake Ontario – our drinking water source.

Sheet Flow

The design does not include a curb to promote inflow of stormwater runoff. The parking lot runoff enters the rain garden as sheet flow.

Successes

CVC, in partnership with the City of Mississauga, is conducting regular maintenance inspection and evaluating the performance of the rain garden. The successes achieved with this project include:

Innovative project – Lakeside Park includes a number of innovative low impact development practices. The project demonstrates the City’s commitment to leading by example.

Protecting the Great Lakes – This project embraces the spirit of the Lake by showcasing how to manage and clean stormwater before it enters the Lake.

Demonstration showcase – Lakeside Park have been showcased in presentations, events and site tours. These efforts have helped educate numerous stakeholders on the benefits of LID.

Public Acceptance – The bioswale landscape design has received a lot of positive feedback from the public. This has helped to increase public recognition and acceptance of LID.



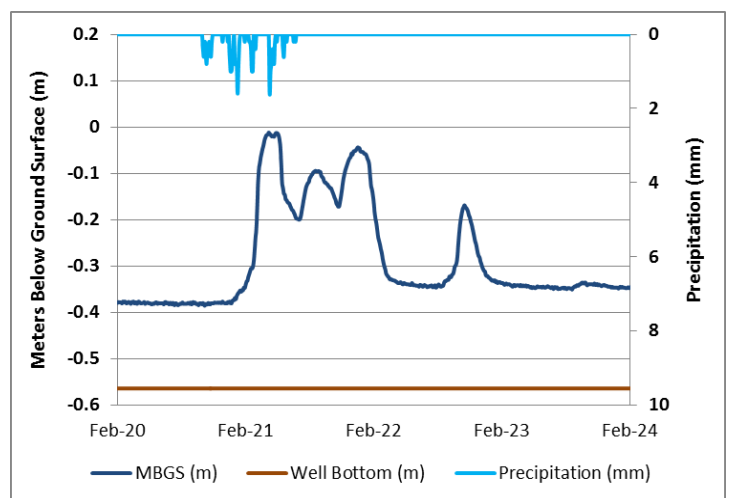
Infrastructure Assessment

As part of CVC’s Infrastructure Performance and Risk Assessment Project, the performance of Lakeside Park rain garden is being evaluated. This assessment will help to provide municipalities and property managers with the information and tools they need to ensure that LID practices on their property are working properly.

Landscaping – the bioswale landscaping consists of straight lines, groupings and tiers. The plants have had four years to establish and have been found to thrive.

Maintenance– the City of Mississauga has been performing maintenance including litter pickup, weeding, and some irrigation. The bioswale has received the same level of maintenance as other City properties.

Performance – Analysis of water level data collected from 2013 to 2014 indicate that the bioswale is performing well and functions within the design parameters. Any ponding of water that occurs on the surface is able to soak into the bioswale within 24 hours. The bioswale is also able to function in the winter when the ground is frozen as melt events are able to infiltrate through the engineered soil mix. The figure below shows a rain event in February 2014, where infiltration into the bioswale occurred after a short period of surface ponding.



Precipitation event and measured water level in February 2014

Proud Partner

