



# Green Infrastructure & Stormwater Management CASE STUDY

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## Sherbourne Common Stormwater Management Facility

**Location:** Toronto, Ontario, Canada

**Client:** Waterfront Toronto

**Design Firm(s):** Phillips.Farevaag.Smallenberg (PFS)

**Landscape architect/Project contact:** PFS/James Roche, Director, Parks, Design & Construction, Waterfront Toronto

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**ASLA Chapter:** CSLA



### Project Specifications

**Project Description:** Opened in late 2010, Sherbourne Common is the first park in Canada to integrate an ultraviolet (UV) facility for neighbourhood-wide stormwater treatment into its design. The UV facility for East Bayfront's stormwater management system is located in the basement of the park's pavilion. Collected stormwater is treated in the UV facility and released from three dramatic art features into a 240-meter long water channel – or urban river – and back out to Lake Ontario.

**Project Type:**

Open space - park

Part of a redevelopment project

**Design features:** Bioretention facility, cistern, porous pavers, and curb cuts, The biofiltration plant material, stormwater and lake feed a UV treatment facility located in the basement of the park's pavilion. The treated water feeds the on-site 'river' and art features, and eventually makes its way to Lake Ontario for discharge.



**This project was designed to meet the following specific requirements or mandates:** Waterfront Toronto's sustainability mandate and inclusion of smart infrastructure, as well as Toronto's water and Public Health regulatory requirements.

**Impervious area managed:** greater than 5 acres

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 1 acre to 5 acres. The park is four acres, but serves a much larger catchment area.

**The regulatory environment and regulator was** apprehensive about the project.

**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** All of the above were key consideration in the design and construction of the system, given that Waterfront Toronto achieved LEED GOLD ND Stage I for the East Bayfront Precinct where the park is located. Additionally, Waterfront Toronto has a strong sustainability mandate and strives to build for the future, not the past.

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** \$1,000,000-\$5,000,000 (Public funding: Federal, state, local - Waterfront Toronto is tri-government funded.)

**Was a green vs. grey cost analysis performed?** No

### **Cost impact of conserving green/open space to the overall costs of the site**

**design/development project:** Initial construction costs are higher than if it hadn't been included, but stormwater management costs will be greatly reduced over time, not including the benefits to Lake Ontario by releasing clean water back into the lake.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Slightly increased. Upfront costs. Reduced costs over time.

**Number of jobs created:** unknown

### **Job hours devoted to project:**

Planning and Design: 2,200 hours

Construction: 28,000 hours

Annual Maintenance: Not available

## Performance Measures

### **Stormwater reduction performance analysis:**

The park opened in late 2010, therefore empirical data is not yet available. However, the park area (4 acres) is now approximately 80% pervious, where previously the area was 100% impervious. The surrounding catchment area is currently under construction, but it is anticipated that with the inclusion of additional pervious public realm surfaces, LEED GOLD buildings with green roofs, etc., approximately 70% of surface runoff will be received and treated.

**Community & economic benefits that have resulted from the project:** The precinct is currently in the early stages of revitalization, however, Waterfront Toronto's plans, including Sherbourne Common, attracted some of the world's most prestigious developers to the area.

## Additional Information

**Links to images:** Sherbourne Common image gallery:

[http://www.waterfronttoronto.ca/sherbourne\\_common](http://www.waterfronttoronto.ca/sherbourne_common)



Video of official opening of Sherbourne Common South:  
[http://www.waterfrontoronto.ca/sherbourne\\_common](http://www.waterfrontoronto.ca/sherbourne_common)

