Low Impact Development Performance Monitoring Lesson Learned through Implementation

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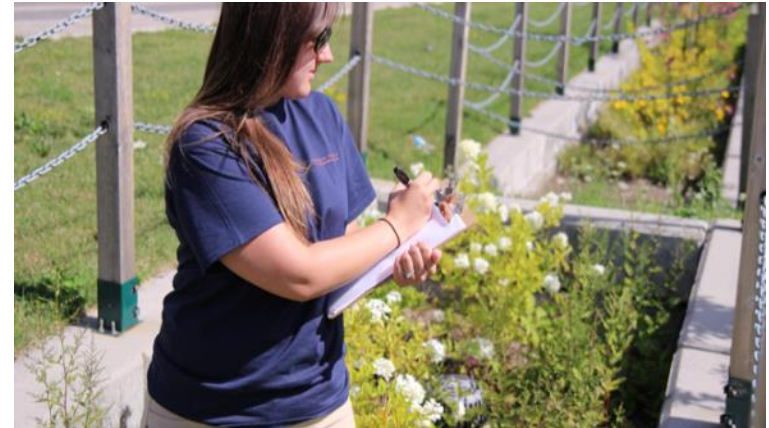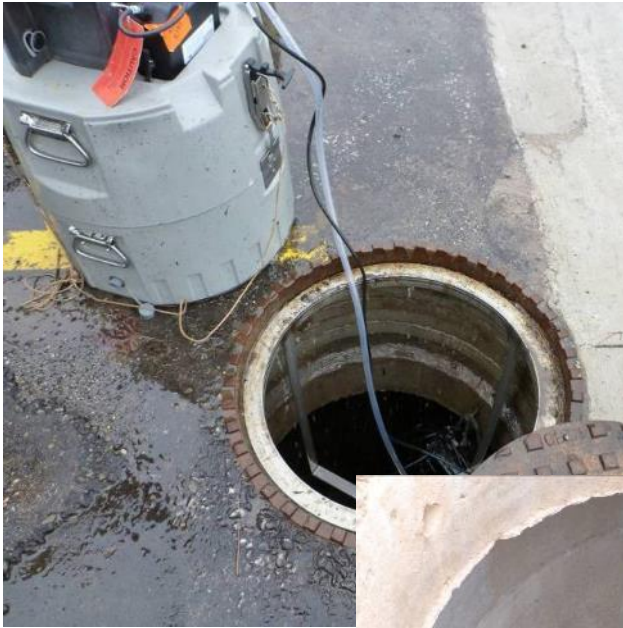Manager, Water Quality Protection

LID Monitoring Program

- 15 LID monitoring sites with 29 core monitoring stations

Many land use types

- Road Right of Way
- Residential
- Parks/Schools
- Commercial
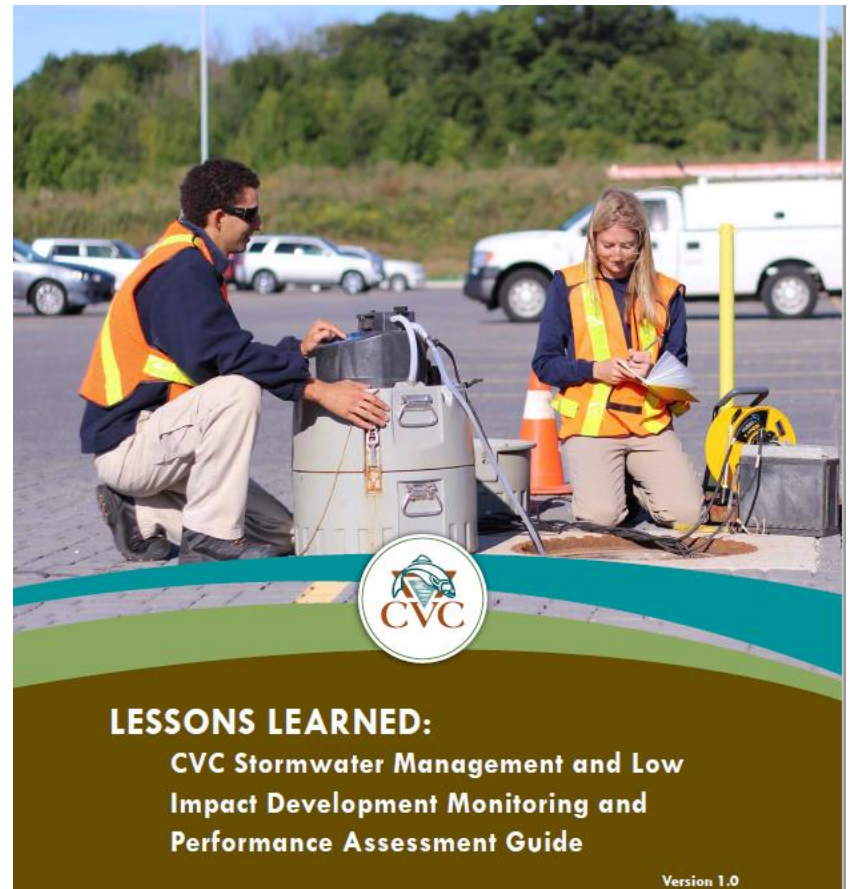
Visual Observations and Measured Performance
Inspection of site condition and Photo logs

LID Performance Results

Site	Volume Reduction	TSS Load Reduction	TP Load Reduction
Lakeview	92 %	93%	83%
IMAX Permeable Pavement (3 stations)	62-99%	93-99%	92-99%
IMAX Bioswales (3 stations)	64-90%	97-99%	57-90%
Riverwood	65%	89%	
Headoffice	67%	81%	69%

Building Confidence in LID

- Performance and maintenance monitoring results have helped overcome perceived barriers and build confidence in LID

- Valuable lessons learned were gained and help inform future designs and criteria for stormwater management

LESSONS LEARNED:
CVC Stormwater Management and Low Impact Development Monitoring and Performance Assessment Guide

Version 1.0

Elm Drive Demonstration site

Lesson Learned:
Designers – for retrofit designs
Go to the site- See how its being used before selecting BMPs!
Selecting Improper BMP can be costly for O&M

Winter Maintenance

Plan for winter maintenance and snow storage when designing your site & communicate the plan to operations staff

Integration between Departments – Communication is Critical

Asset Management and Life Cycle Planning – Key to long term success

Integrated Asset Management Tool

- Streamline tracking and management of green infrastructure

- Enable development of green asset management plans

- Assist with life-cycle activities including maintenance and inspection

- Estimate life-cycle cost of infrastructure

Summary

- Performance Monitoring and Inspections can optimize future design, implementation & operation

- Understand how your site is or will be used to select proper BMPs and reduce O&M requirements

- Plan for winter operation and snow storage in design and site plan. Communicate this with winter operation staff /contractor

- Develop asset management tool to allow for seamless communication between departments/agencies/utilities

inspired by nature