

Practical Guidance on Inspecting and Maintaining Low Impact Development / Green Stormwater Infrastructure

Operationalizing a low impact development (LID) approach to stormwater management requires municipalities and property managers to develop their capacity to inspect and maintain best management practices (BMPs) that most have little or no experience with. To assist with this challenge guidance has been developed to help designers, managers and inspectors of stormwater infrastructure develop efficient and effective LID inspection and maintenance programs and practical tools for implementation.

A course to assist stormwater infrastructure asset managers, engineering and landscape design professionals and construction supervisors with designing and implementing inspection and maintenance plans for low impact development (LID) stormwater best management practices (BMPs). Participants will learn about the recommended framework of inspection types, visual and testing indicators, maintenance tasks, techniques and frequencies and will gain insight into available tools to estimate the inspection and maintenance costs of LID BMPs over their operating life cycle. Experienced instructors will also impart valuable lessons learned from Ontario case studies and life cycle cost comparisons for each type of LID BMP.

This course provides an overview of:

1. Critical components and considerations in developing an efficient and effective LID stormwater infrastructure inspection and maintenance program;
2. Tips for making LID inspection and maintenance cheaper and easier by design;
3. The recommended framework of inspection types, indicators and tests to use over a typical LID BMP life cycle, including standard protocols and test methods;
4. BMP-specific guidance on inspection, testing and maintenance tasks, frequencies and structural repairs/rehabilitation.

Upon completion of this course participants will be able to:

- Identify components of stormwater infrastructure asset management programs that are critical for developing the capacity to manage LID BMPs.
- Identify program and LID BMP design components that make inspection and maintenance easier and cheaper to perform.
- Summarize the recommended framework of inspections, indicators and tests to use during the main lifecycle stages of each type of LID BMP.
- Recognize key components of BMP-specific inspection and maintenance plans.
- Estimate the inspection and maintenance costs of LID BMPs over their operating lifespan using available guidance and life cycle costing tool from Ontario.

Instructors:

Dean Young

For the past fifteen years Dean has worked for Toronto and Region Conservation. He is currently a Project Manager with the Sustainable Technologies Evaluation Program where his work focuses on evaluating the effectiveness of innovative water and soil management technologies in an Ontario context. He manages applied science research projects and develops knowledge transfer tools to overcome barriers to widespread implementation of proven technologies. His most recent work includes guidance on the design, inspection and maintenance of low impact development (LID) stormwater infrastructure and soil management best practices. Dean also participates on national standards development committees relating to the design and construction of stormwater infrastructure.

Kyle Vander Linden

Kyle Vander Linden is a Program Manager, Integrated Water Management, at Credit Valley Conservation (CVC). His work at CVC over the last 10 years has focus on the implementation of low impact development and pollution prevention (P2) projects, development of LID guidance and training, and most recently, helping address the economic / cost barriers to LID implementation through property aggregation, cost optimization analysis, and stacked offsets.