



Introduction to Low Impact Development

This training event was produced through the Climate Change Adaptation Platform, with support from Natural Resources Canada and in partnership with the Catarqui Region Conservation Authority (CRCA) and the City of Kingston.

Date: November 5, 2019

Location: INVISTA Centre - Rooms A&B, Kingston, ON

Instructors:

Jen Hill - Toronto and Region Conservation Authority

Kyle Vander Linden - Credit Valley Conservation

Course Description:

Low Impact Development (LID) is an innovative stormwater management approach that treats, infiltrates, filters, and retains runoff at the source. LID practices are proven approaches that have been implemented with great success for decades. This approach is quickly gaining traction here in Ontario and across Canada as practitioners come to understand the benefits and need for building water resilient communities.

This course will demonstrate how LID differs from traditional stormwater practices, and why it is becoming a necessary part of our infrastructure. Over the course of the day, participants will learn the fundamentals of LID and review common trends in LID performance. Instructors will also explain how to overcome common barriers to implementing LID including winter performance, site constraints, soils, bedrock, groundwater, and utilities.

Participants will have a chance to discuss real world examples of LID projects through a series of case studies on a variety of land use types, including residential, linear, and industrial/commercial. These case studies will provide real-world examples where “constraints” have been mitigated through creative planning and design. Instructors will share valuable lessons learned on design, documentation, construction, erosion and sediment control, inspection and maintenance.

Finally, course instructors will also review some of the decision support tools available to help implement LID projects, including the [WIKI Design Guide](#), the [LID Treatment Train Tool](#), and the [LID Lifecycle Costing Tool](#).

Learning Objectives – Upon completion of this course participants will be able to:

1. Explain the importance and function of Low Impact Development (LID)
2. Identify common barriers to LID adoption, including winter performance, site constraints, soils, bedrock, groundwater, and utilities and explain possible mitigation measures
3. Recognize how LID can be used on a variety of land use types to manage stormwater
4. Understand the availability and utility of various decision support tools including the WIKI Design Guide, LID Treatment Train Tool, and LID Lifecycle Costing Tool

Time	Task
8:00 – 8:30 am	Arrival and Registration
8:30 – 8:35 am	Introduction & Housekeeping
8:35 – 9:00 am	Kingston Area Context <ul style="list-style-type: none"> ○ Characterization of the area ○ Conditions & Pressures ○ Why LID?
9:00 – 9:45am	Stormwater Fundamentals: Introduction to Low Impact Development <ul style="list-style-type: none"> ○ Types <ul style="list-style-type: none"> ● High bedrock ● Deep bedrock ○ Functionality
9:45 – 10:15 am	Activity 1
10:15 - 10:30 am	NETWORKING BREAK
10:30 – 12:00 pm	LID / Green Infrastructure Myth Busting <ul style="list-style-type: none"> ○ Dealing with site constraints ○ Tight soils ○ High bedrock/groundwater <ul style="list-style-type: none"> ● Filtration system design elements ● Filtration system performance ○ Utilities ○ Performance / Winter Performance ○ Questions and Answers
12:00 – 1:00 pm	LUNCH
1:00 – 1:30 pm	Activity 2
1:30 – 2:30 pm	LID Application at the Neighbourhood Scale (Residential development case studies) and Road Right of Ways <ul style="list-style-type: none"> ○ Vales of Glenway (High Density) ○ Wychwood (Medium Density) ○ County Court Boulevard ○ Overview of Alwington Avenue Rain Garden
2:30 – 2:45 pm	NETWORKING BREAK
2:45 – 3:45 pm	Getting Started & Moving Towards Operational Processes in Getting LID into the Ground <ul style="list-style-type: none"> ○ Stormwater Master Planning: Moving from pilot project to a green infrastructure program ○ Lessons learned in design, construction, inspection, operation and management ○ Designing with Maintenance in Mind <p>Overview of STEP Tools Available</p> <ul style="list-style-type: none"> ○ Wiki Design Guide ○ LID Treatment Train Tool ○ LID Life Cycle Costing Tool
3:45 – 4:00 pm	Question and Answer

The Sustainable Technologies Evaluation Program (STEP) is a conservation authority initiative. Current partners are:

