

Day One - Track One

Wednesday, March 22nd, 2017

11:30 a.m. – 12:00 p.m.

The Next Step : Using LID to Mimic Natural Systems With Arterial Road Drainage

Presenter: John Nemeth, Region of Peel

Biography



John is a graduate of Ryerson University and has over thirty years' municipal experience in the land development and capital programming areas, focusing on the design, implementation, operations and maintenance of stormwater infrastructure and its role to service both service the land and protect the environment.

As chair of the National Benchmarking Initiative (Stormwater Group) and the Southern Ontario Municipal Stormwater Discussion Group he has had the opportunity to participate in national provincial and municipal exercises to improve stormwater practices and contribute to policy frameworks put forth to protect the environment.

Abstract

The Ministry of the Environment and Climate Change has proposed the use of volumetric controls to mimic natural hydrology for development and redevelopment of lands, including roads. A number of alternatives to traditional stormwater drainage systems and end of pipe stormwater controls have been investigated and alternative designs that effectively use Low Impact Development (LID) technologies have been developed that may be applied to road designs to meet the proposed infiltration and/or filtration targets. The use of LID to replace pipes and ponds is practical and very implementable. Case studies will be presented to illustrate how this is being done for arterial roads, although this shift in infrastructure design may be applied to all roads or other impervious surfaces such as parking lots or subdivisions.

Learning Objectives

1. Applying volumetric controls to implement LID in Road design;
2. Methods and practices to improve water quality, thermal mitigation, erosion control and sedimentation for capital road projects; and
3. Demonstrating how to mimic natural hydrology and minimize traditional end of pipe storm drainage systems for roadways.