Day Two - Track One
Thursday, March 23rd, 2017
2:00 p.m. – 2:30 p.m.

Cash strapped? Why a New Business Model is Needed for Municipal Infrastructure

Presenters: Kyle Vander Linden, Credit Valley Conservation
Tracy Patterson, Freeman Associates

Biography

Kyle Vander Linden began his career in low impact development as a project manager in green roof construction, research and development. He later joined Credit Valley Conservation (CVC) in 2008 as a water resources specialist. At CVC, Kyle is responsible for the implementation of integrated water management projects such as low impact development overseeing design, construction, and operation and maintenance along with LID training. Due to the lack of wide scale adoption of green infrastructure, a topic of Kyle's increasing focus is on the economics and market place mechanisms to drive uptake of LID and green infrastructure. Apart from CVC, Kyle is a part time instructor at Redeemer University College teaching urban geography and natural resource management.

Tracy Patterson is a market transformation strategist specializing in market research and gaps analysis and marketplace-based programming for water management. Tracy is a strong proponent of integrated water management planning and expanding the water infrastructure equation to include private property and the marketplace. She holds an Hons BSc from Guelph University.

Abstract

Advances in green infrastructure (GI) such as low impact development (LID) and other treatment technologies are beginning to modernize municipal stormwater management (SWM) systems. SWM charges have eased the financial burden for municipalities and public utilities. Yet, cities still face the challenge of maintaining and replacing this evergrowing system, whether through increasing property taxes or stormwater charges. The end results, as cities continue to expand and upgrade their stormwater infrastructure, are perpetually rising costs and growing infrastructure deficits. Green

infrastructure provides municipality with the flexibility to implement in public or private lands and helps address infrastructure deficit. However, low uptake of GI by private property owners in the residential and business sectors; despite the use of financial subsidies, stormwater credits or 'feebates', and other financial incentives; adds to the challenge of achieving sustainable stormwater infrastructure and addressing infrastructure deficit.

Market research undertaken in the City of Mississauga by Credit Valley Conservation (CVC) and its project partners identified key barriers to uptake of source-level SWM measures by private property owners. The research, which coincided with the City establishing a stormwater charge and credit program, identified the two main barriers to at-source SWM in the non-residential sector as upfront capital costs and an extended payback period on such
investments. Perhaps more significantly, the research pinpointed constraints inherent in the current municipal SWM business model impeding the development of holistic, cost-effective, and adaptive SWM infrastructure. The typical business model for SWM is a "command and control" business model – a municipal or public utility, funded via charges or property taxes from private landowners, provides services through infrastructure residing primarily on public lands. Such a model dates back to the late 19th Century and remains today the primary municipal SWM business model.

This presentation will provide an overview of the findings from the market research with non-residential property owners, the implications for GI/LID and a discussion of the impediments to sustainable SWM infrastructure using the current municipal business model. The presentation will also discuss CVC's current project to address the constraints identified via market research, specifically the evolution of the municipal SWM business model to incorporate market-based economic instruments and facilitate aggregation of properties or grid-scale LID.

Learning Objectives

1. Understand the barriers to LID / GI adoption through market research conducted across the GTA;
2. Understand the challenges caused by the current business model in relation to LID/GI uptake and growing infrastructure deficit; and
3. Understand the need for a new business model and principles of that business model needed to achieve widescale adoption of SWM / GI.