



The 48th Annual Drainage Engineers Conference

The 2016 Drainage Engineers Course and Conference at the Holiday Inn Guelph Hotel and Conference Centre.

- Thursday, October 20, 2016 – Drainage Engineers Course
- Thursday, October 20, 2016, 7:00 to 9:00 pm – Drainage Practitioners Meeting, including Tribunal Updates
- Friday, October 21, 2016 – Drainage Engineers Conference,

Drainage Conference Program

Welcome and Introductions, Antonio (Tony) B. Peralta, P.Eng., Chair, OSPE Land Drainage Committee

Ross Scholarship Recipient Presentation, Albert ZiHao Jiang, University of Guelph

New MTO Drainage Design Tools for Flow Analysis and IDF curves, Hani Farghely, Ministry of Transportation

The Ministry of Transportation has release two new design tools for the design of drainage infrastructures. These tools are as follows:

1. MTO IDF Curves application V3.0 – It includes the ability to acquire future year IDF curves that account for climate change impacts
2. MTO Unified Ontario Flood Method – is a new regression equation for Ontario

The presentation will provide an overview of these tools. It will also demonstrate how they are applied in the design of MTO highway infrastructure.

The Holland Marsh Canal Improvement Project – An Environmental Good News Story, Michael Michalski, Limnologist /Senior Adviser, Michalski Nielsen Associates, and Al Shaw, Senior Ecologist/Principal, RiverStone Environmental Solutions Inc.

The Holland Marsh Drainage Canal Improvement Project was undertaken to create an agricultural drainage system that would:

- reduce the possibility and extent of flooding;
- be more easily and frequently maintained;
- eliminate accidents and fatalities;

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- and opportunistically provide environmental benefits to a damaged waterway.

A federal Department of Fisheries and Oceans (DFO) authorization was the key approval, as it was determined that the Project would result in the harmful alteration, disruption or destruction in fish habitat. The DFO authorization required that every reasonable effort should be made to remove fish from the canals prior to construction. Matters of Species of Conservation Interest also needed to be satisfactorily addressed prior to construction commencing. Continued post-construction monitoring of water quality and fish stocks will assist in substantiating the initial very promising improvements.”

Farmland Water Management and Drainage Collaborative Strategy for the Thames River Basin, Nicola Crawhall, Deputy Director, Great Lakes and St. Lawrence Cities Initiative

This session is on the OFA/Cities Initiative joint venture, a Farmland Water Management and Drainage Collaborative Strategy to Reduce Phosphorus Loss in the Thames River Basin.

The 5-year, \$7.5 million strategy has been developed in collaboration with agricultural groups, municipalities, drainage professionals, conservation authorities, NGOs and First Nations, to provide direct advice and assistance to farmers and municipalities to adopt best practices to reducing the surface and subsurface transportation of phosphorus off agricultural land either directly into waterways, or via municipal drainage systems.

Of Roads and Drains, Sid Vander Veen, Drainage Coordinator, Ministry of Agriculture, Food and Rural Affairs

Roads and municipal drainage systems crisscross the rural landscape, and frequently they intersect. They are different forms of infrastructure that are both based in legislation. This session will provide guidance to engineers for incorporating road interests into drainage designs and to drainage superintendents in the maintenance, repair and enforcement of their drainage systems.

New Guidance Document for Maintaining Municipal Drains, Dr. Richard Kavanagh, Fisheries and Oceans Canada

The Department of Fisheries and Oceans (DFO) recognizes the need for and importance of drain cleaning and maintenance and balances this need with a regulatory requirement to protect fish and fish habitat. This document summarizes the various roles and responsibilities of agencies with a regulatory interest in municipal drains and is directed primarily toward drain maintenance and clean out activities.

The purpose of this guidance document is to:

1. Outline the regulatory review process for the maintenance of drains in Ontario, with regards to the federal Fisheries Act and the Species at Risk Act (SARA).

2. Outline roles and responsibilities of other agencies with a regulatory interest in Municipal drain maintenance projects;
3. Provide user-friendly resources and tools for the drainage community when submitting maintenance activities for review by DFO.

Balsam Street Drain Case Study, John Kuntze P.Eng., K. Smart Associates Limited

The Balsam Street Drain report illustrates the use of the Drainage Act to resolve a drainage problem in an urban setting with a fully urban watershed. Balsam Street Drain was initiated by a residential lot owner petitioning for area requiring drainage in their backyard.

Van Beets Municipal Drain - A Case Study, Jeff Dickson, R.J. Burnside & Associates Limited

A drainage project initiated under Sections 4 & 10 of the Drainage Act. The watershed is located in the Municipality of Central Huron, geographic of Goderich. The drain consisted of a main and three branches, was primarily a closed system which incorporated rural stormwater management in the form of a number of WASCoBs and other sediment control features.