Day Two - Track One
Thursday, March 22nd, 2018
2:00 p.m. – 2:30 p.m.

Stormwater Management: Getting the Temperature Just Right

Presenter: Michelle Letourneau, Savanta

Biography

Michelle Letourneau has spent more than 10 years, mainly as a consultant, studying, assessing and protecting aquatic ecosystems within Canada, the United States and South America. She has extensive experience inventorying and assessing flora and fauna in both freshwater and marine environments. She has lead and organized projects in various industry sectors, including pulp and paper, mining, power generation, transportation, recreation, urban development and government. These projects have given her a comprehensive working knowledge of government regulations, habitat assessment techniques and monitoring methods. She has implemented projects to meet regulatory requirements under CEPA , SARA, ESA, FWCA, Planning Act, Reg. 153/04, Fisheries Act, MMER, and PPER. She delivers experience and services in ecology (aquatic and terrestrial), biology (aquatic and terrestrial), environmental quality, ecological health, human health and toxicology. She has developed a holistic view of the aquatic ecosystem and anthropogenic activities allowing her to identify and focus on key interactions potentially affecting the long-term health of ecosystems.

Abstract

Thermal mitigation is one of the major remaining concerns for the effective design and operation of Storm water Management (SWM) ponds. There are numerous articles, reports and Best Management Practices documents (BMPs) available but applying this information to a SWM pond design for a development is not straight forward. In this presentation, the following are reviewed: Consistently approved BMPs; Barriers to the use of other BMPs; and Engagement strategies to foster acceptance of alternative BMPs. In summary, under the current regulatory regime, land developers and consultants often arrive at end-of-pipe solutions to treat stormwater runoff that do not provide optimal thermal mitigation. However, there is growing interest by practitioners and approval agencies to pursue alternative BMPs to address potential thermal impacts in more sensitive receiving waters such as coldwater streams and Species at Risk watersheds. To continually improve the thermal function of SWM ponds, data sharing and open communication between all stakeholders is necessary. This presentation will make reference to current design s and best practice examples in settings including Vaughan, Brampton and Markham.

Learning Objectives

1. Gain familiarity with current and emerging SWM pond design components that offer thermal load reduction potential such that they can discuss the components with confidence;

2. Develop the vocabulary and understanding of the SWM pond thermal loading issues to be able to have productive discussions with engineers, ecologists, regulators, land developers and other consutants; and

3. Determine what barriers there are to implementing emerging BMPs for specific sites allowing them to evaluate the potential for successful inclusion of the BMPs.