

Day One - Track Two

Wednesday, March 22nd, 2017

9:00 a.m. – 9:30 a.m.

Improving Sediment Control Outcomes through Implementation of New Technologies, Concepts, and Approaches to Monitoring and Managing Construction Sites

Presenter: Paul Villard, GEO Morphix Ltd.



Biography

Dr. Villard is Director and Senior Geomorphologist at GEO Morphix Ltd. He has been involved in hundreds of habitat restoration, sediment transport, erosion control, and urban impact mitigation projects both locally and internationally. He continues to conduct research and teach through the University of Guelph where he is an adjunct professor. He is a member in good standing of the Association of Professional Geoscientists of Ontario.

Abstract

New technologies and approaches continue to evolve in order to better observe, manage, and report conditions and effectiveness of erosion and sediment control measures. This presentation discusses the benefits, opportunities, and limitations of new technologies including the use of drones for site surveys, cellular and GPS enabled tablets for documenting site conditions, and telemetry based monitoring and alarm systems. This talk focuses on recent experiences employing these various technologies in the field. The advantages of these tools are examined in the context of staff allocation, response time, impact mitigation, and improvement of sediment control outcomes. Although these technologies show significant potential, there are limitations that need to be understood. Case studies are used to illustrate the benefits and reinforce that there is no “one fits all sites” type of technology or method. Finally, in the context of these technological opportunities concepts are highlighted from the health and safety perspective that focus on communication, education, and risk management.

Learning Objectives

1. Use of new technologies to improve site management regarding erosion and sediment control and impact mitigation;
2. Highlight concepts from the 'health and safety literature' to improve erosion and sediment control outcomes that focus on communication, education, and risk management; and
3. Reinforce that there is no “one fits all sites” type of technology or method to address site management.