

Secrets toward Success In Live Staking

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This presentation reviews current practices in the live staking of channel banks and riparian zones based on the authors' experience with the use of live staking in dozens of stream restoration projects in Ontario. The presentation will describe recommended techniques, application types, site setting, required soils, moisture, climate, seasonal planting, animal browsing protection, meeting land use/regulatory requirements and other guidance required for successful implementation. The authors' will subsequently discuss their experience and learnings in applying and adapting live staking to Ontario streams. Specific subjects will include native live stake species selection, harvesting/sourcing, storage, plant preparation, handling, installation timing and methods (fall vs. spring), staking depth, soil and moisture requirements, and post-planting care. Additionally, discussion will be included on post-construction monitoring, maintenance and what defines a successful project (planting survival, percent coverage). The presentation will review live staking use in Ontario as applied at live cribwalls, vegetated riprap/stone toes and as standalone bank stabilization.

Biography

Sheldon Smith is a Stantec Principal and Senior Hydrologist who has worked extensively with clients throughout North America and overseas in hydrological and watercourse restoration projects. His hydrological expertise lies in open channel and pulse flow monitoring, modeling and water quality analysis, modeling and interpretation, particularly in the fields of water supply assessment, stormwater management, floodplain assessment, instream flow needs assessment, and stream monitoring. His watercourse restoration experience has been focused on natural channel design for channel realignments, erosion analysis and channel bed and bank restoration at pipeline and other infrastructure crossings.

Daniella Giovanatto is a Landscape Architect and Arborist at Stantec Consulting with several years' experience in restoration and naturalization projects across Southern Ontario. Daniella has a Bachelor of Landscape Architecture from the University of Guelph and is a full member of the Ontario Association of Landscape Architects as well as Certified Arborist with the International Society of Arboriculture.