**Problem**

*Erosion:* Replace gabion baskets around the existing culvert and repair an approximately 25 m long section of the creek bank along its south side, which has been eroded by multiple 100-year storm events. This section of the creek had approximately 2m high bare slopes, which were undercut by water flow erosion.

**Project Background**

Envirolok™, provides stability and the ability to expedite construction to restore vegetative cover lost to erosion near creekbank and culvert.

*Installation Method:* Working with the City of Barrie maintenance crews and Technical Support provided by Envirolok™, bags were hand laid with minimal heavy equipment required.

*Desired Results:* Full Vegetative Cover with a mix of perennial native grasses and wildflowers.

*Advanced Construction Incorporated:* Geogrid Tie Backs.

*Vegetation Approach:* The project was hydroseeded immediately following construction with a Bonded Fibre Matrix containing native seed and perennial rye cover crop.

*Size of Project:* 115m² constructed in 3 days.

During construction (Envirolok™ was half constructed), Sophia Creek experienced an unprecedented 1:100 year storm event, which accelerated erosion at the site and caused the culvert itself to dislodge into the plunge pool. Envirolok™ was left standing much to the surprise of City of Barrie Public Works officials and The Lake Simcoe Conservation Authority.

WWW.ENVIROLOK.COM
SoPhia creek

creekbank Stabilization
Barrie, Ontario; 2015

Solution

Envirolok™ Results: Excellent results with full vegetated cover achieved within 3 months of construction.

Envirolok supplies a permanent vegetated solution to persistent erosion of creekbank and stormwater. Envirolok easily conforms to the natural contours of a slope compared to other systems. Envirolok also provides structural support that when combined with native vegetation allows the establishment of habitat along sensitive areas.

Project Partners

Engineer: Bruce Polan, Senior Geotechnical Engineer, GHD – Waterloo, Ontario
Contractor: City of Barrie Maintenance Crew
Bag Filler: Marco Clay Products Inc. Blandford-Blenheim, Ontario
Owner/Client – City of Barrie
Approving Authority – Lake Simcoe Region Conservation Authority

Distributor

Sold & Distributed by Envirolok™ Canada – Jay Morgan

Go to ENVIROLOK.COM for more information, specifications, standard detail drawings, photos, and installation guides.

NOTE: Do not burn native vegetation growing on the Envirolok system. The bag fabric is flammable.

NOTE: Advice from an engineer is recommended when building walls more than 4’ in height, or when site conditions include unusual erosion or weak soil conditions.