Brant — Storm Sewer Outlet Protection

CASE STUDY

Year of Construction: 2023
Location: Brant, ON
Product Installed: Erosion Control Blankets

CHALLENGE

A forested public park's trapezoidal channel, receiving stormwater discharge, needed rehabilitation due to severe erosion over time.

SOLUTION

The channel was regraded, seeded and reinforced with biodegradable double net coconut blankets and turf reinforcement mat.

PROJECT OVERVIEW

A trapezoidal-shaped channel running through a forested public park experienced erosion over the years due to stormwater discharge from a nearby stormwater outlet. This erosion posed risks to both the ecological balance of the park and the overall functionality of the stormwater system. The channel required rehabilitation to prevent further damage and restore natural conditions.

The rehabilitation process began with the regrading of the channel, reshaping it to promote effective water flow and reduce future erosion risks. A seed mix was applied to encourage natural vegetation growth. For additional reinforcement, a double net coconut blanket (C200B), a biodegradable material, provided temporary erosion control while allowing plants to establish. C200B has a design performance ratings of 2.7m/s of velocity and 108Pa of shear stress under unvegetated conditions.

The bottom of the channel was lined with FM200, a turf reinforcement mat made from polypropylene fibres, offering long-term durability and strength. FM200 has design performance ratings of 6.65m/s of velocity and 158.4Pa of shear stress under unvegetated conditions.

Within months, vegetation flourished, filling the open voids in the blankets, creating a fully vegetated, stabilized channel that seamlessly blended into the park's natural landscape.