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ScourStop – The Green Solution to Riprap

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SCOURSTOP

ScourStop transition mats are a paradigm shift - an engineered, proven bio-technical alternative to hard armor. ScourStop mats combine the beauty of natural vegetation with modern polymer technology to mechanically protect soil from scour and erosion.

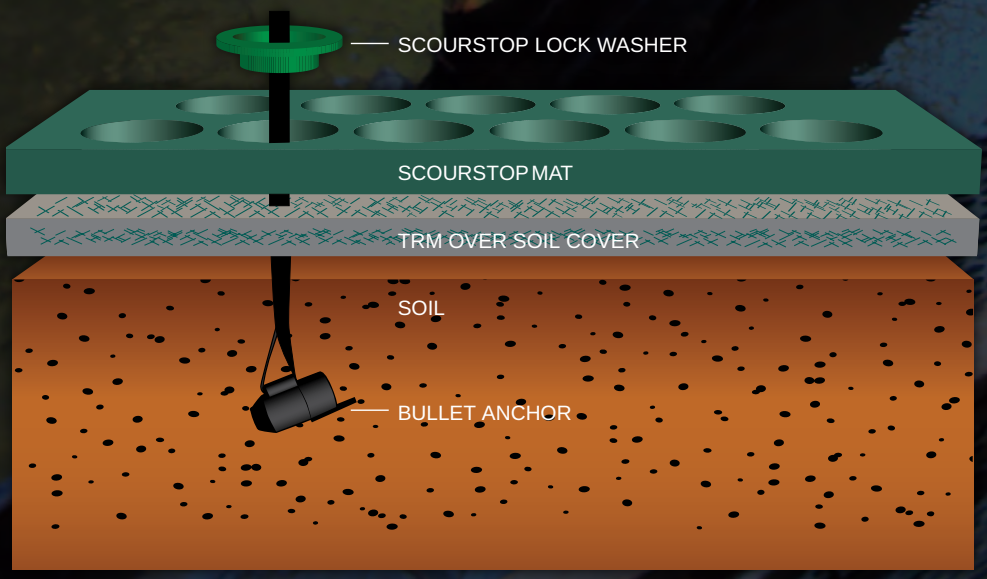
Elements of the transition mat system:

- Mechanical protection
- Reinforced soil covers
- Deep-anchoring soil stabilization

Mechanical Protection
Provides impact resistance, tensile strength, and permanent durability against high-erosive stresses.

Soil Covers
Soil is extremely erosive. Some type of best management practice (BMP) cover is required under ScourStop for effective results. Typically, a turf reinforcement mat (TRM), sod, or a combination of both provide maximum protection for every soil type and condition. Geotextiles may be used on non-vegetated projects.

Deep Anchoring
To withstand the shear forces of flowing water, transition mats must be anchored deep in the soil. ScourStop's innovative bullet anchors are integral to the mat's resistant strength and also help each mat conform to the native topography.



Where is ScourStop used?

Culvert Outlets

Overflow Structures

Stream banks & toe of slope

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ScourStop® Transition Mats are an engineered, proven, bio-technical alternative to traditional hard-armor systems. ScourStop® Transition Mats are manufactured of a semi-rigid HDPE. When combined with softarmor soil cover and deep-soil earth anchors, the ScourStop® system mechanically protects soil from severe scour and erosion. The ScourStop® system offers greater protection than vegetation alone or rip rap and is lab-tested and field-proven to protect against considerably higher shear stresses and velocities. ScourStop® Transition Mats provide a permanent, low-maintenance solution with immediate, day-one protection and impact resistance over highly erosive areas such as stormwater outfalls, curb outfalls, overflow structures, drainage channels, levees, and shorelines. ScourStop® Transition Mats conform to the property values listed below:

Properties	Test Method	English	Metric
Mass/Unit Area	ASTM D6566	0.942 lbs/ft^2	4.599 kg/m^2
Thickness	ASTM D6525	0.463 in	11.735 mm
Wide Width Tensile Strength	ASTM D4595	3,053 lbs/ft	4.139 kN/m
Percent Open Area	Calculated	50%	50%
UV Stability	ASTM D4355	87%	87%
Manning's n	Calculated	0.039	0.039
Culvert Outfall Test Exit Velocity Discharge	Prototype	16 ft/sec	4.877 m/sec
Velocity Day 1 Performance Fully Vegetated	Flume Testing ASTM D6460	19 ft/sec	5.791 m/sec
Shear Day 1 Performance Fully Vegetated	Flume Testing ASTM D6460	13 lbs/ft^2	63.472 kg/m^2

terrafixgeo.com • (416) 674 0363 • 455 Horner Avenue, Toronto, ON M8W4W9

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