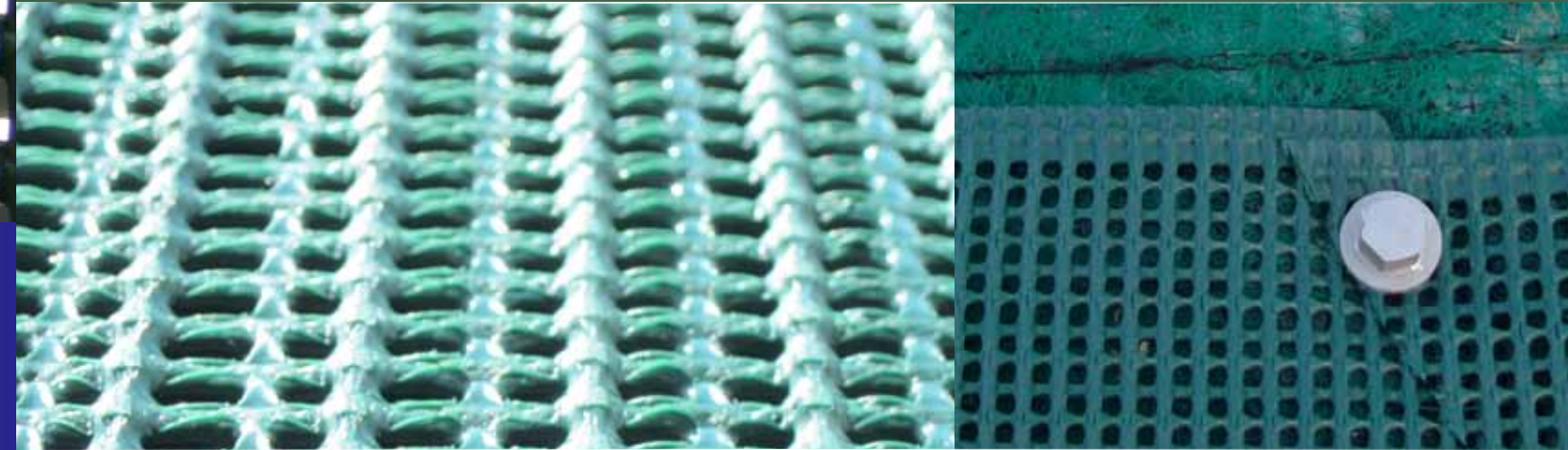




SCOURSHIELD | THE FLEXIBLE SOLUTION FOR SCOUR PREVENTION

**CONVENIENT ROLLS PROVIDE:**

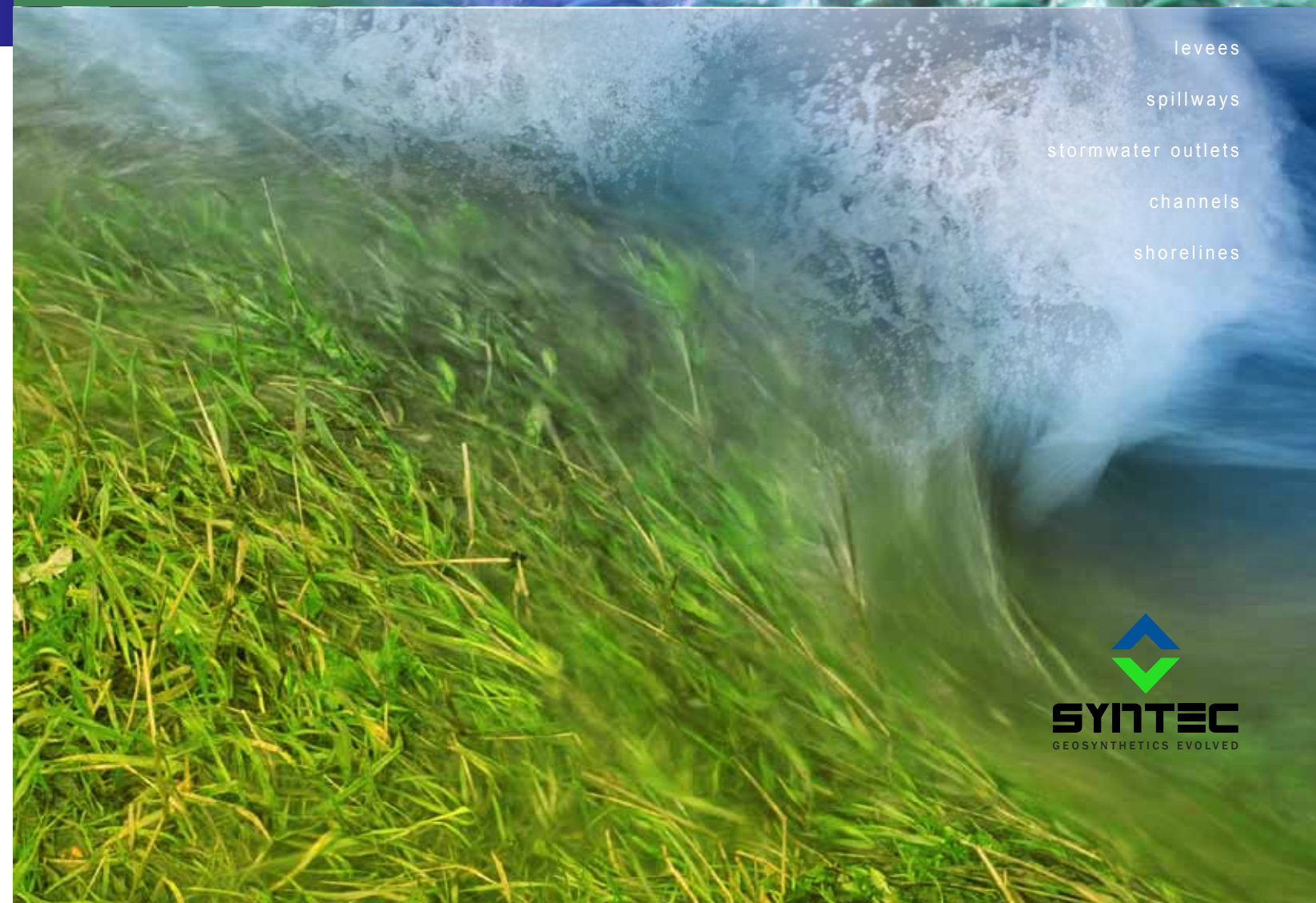
- Flexibility to Conform to the Ground
- Easy Installation - Simply Unroll and Secure
- Minimal Seams to Contend With
- Easy to Transport



City of Edmonton, Alberta, Installed Fall 2010



City of Spruce Grove, Alberta, Installed Fall 2010



- levees
- spillways
- stormwater outlets
- channels
- shorelines



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# THE FLEXIBLE SOLUTION FOR SCOUR PREVENTION

Syntec ScourShield is a flexible, heavy duty “Anchored Reinforced Vegetation System” used to prevent scour erosion in areas of concentrated flows. Conventional hard armor techniques are both costly to build and can be costly to maintain. In replacing riprap or concrete, ScourShield works with conventional rolled erosion control products to allow and promote the growth of natural vegetation. Reinforced vegetation is preferred over rock or concrete for most stormwater pipe outlets, curb outfalls, levees and spillways and even shorelines and streambanks. ScourShield protects these scour prone areas from erosion as a result of high water velocity, impact and shear stress. ScourShield also protects shorelines from repeated wave impacts.

Replace costly and often ineffective concrete and riprap at pipe outlets.



**STORMWATER OUTLETS**

Use ScourShield to replace unsafe and unsightly riprap on spillways and overflows.



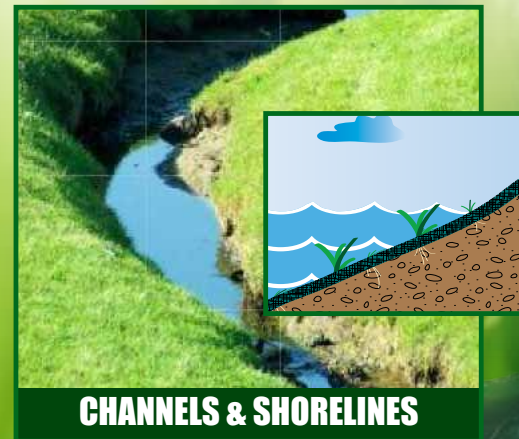
**LEVEES & SPILLWAYS**

Use ScourShield where curb outlets direct heavy flows instead of riprap.



**CURB OUTLETS**

ScourShield works well on shorelines and channel bends to prevent scour.

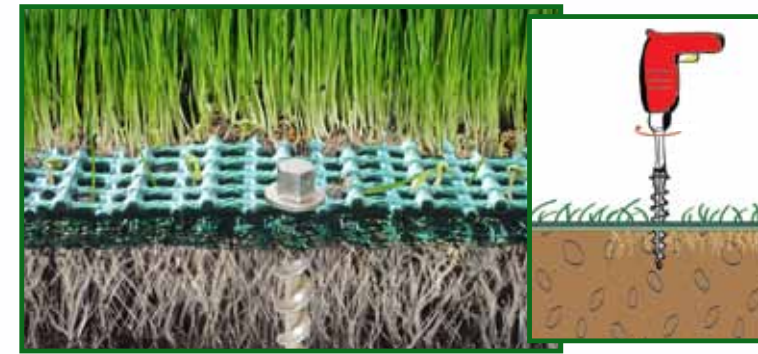


**CHANNELS & SHORELINES**

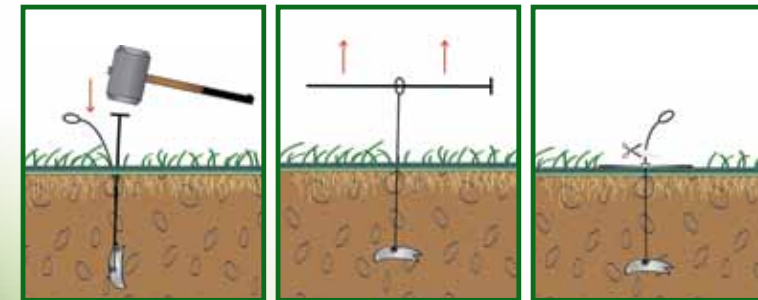
Unlike segmented systems which are deployed as small individual panels, ScourShield comes to the site in easy to install rolls. With fewer joints or seams, the integrity of the ScourShield system remains more consistent than segmented products.



Screw Penetrators install quick with a cordless power drill.



Our Screw Penetrators make securing ScourShield super fast and super easy. Simply attach a standard 3/4” drive socket to any power drill; then drive the Penetrator through the openings in the mat until it makes firm contact with the ground below. Screw Penetrators work best in medium to medium firm soils.



In loose or very sandy soils, mechanical ground anchors; available from a variety of manufactures, can be driven deeper and to provide better grip. Long J-pins made of rebar have also been used to secure ScourShield. The type and number of anchors to use should be determined by the designer with the manufacturer’s recommendations as the minimum.

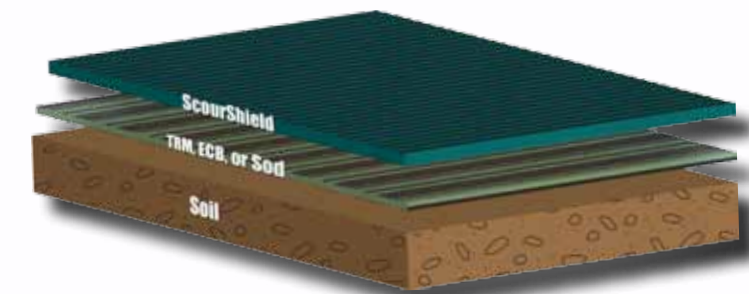


## LABORATORY STUDY

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING  
University of Alberta, Edmonton Alberta

In a laboratory study, the heavy duty screen was shown to slow down supercritical flows significantly, resulting in substantial energy loss.

MATERIAL CHARACTERISTICS	DATA	
UV Stabilized	HALS	
Color	Green	
Density	0.94 g/cm <sup>3</sup>	0.94 g/cm <sup>3</sup>
Weight	3.6 lbs/sy	2000 g/m <sup>2</sup>
Thickness	0.25 in	6.3 mm
Opening Size	0.25 in	6.3 mm
Percent Open Area	25%	25%
Ultimate Tensile Strength	1500 lb/ft	22 kN/m
HYDRAULIC PROPERTIES		
Velocity Reductions	Up to 74%	
Kinetic Energy Reduction	Up to 85%	
PACKAGING		
Roll Size - width x length	3.6' x 33'	1.1m x 10m
Roll Weight	48 lbs	22 kg
Rolls Per Pallet	12	
Pallets Per Truck	60	
SCREW PENETRATOR ANCHORS		
Material	Cast Aluminum	
Length	9.0 in	230 mm
Hex Head	0.75 in	19 mm
Diameter - shaft	0.375 in	9.5 mm
- screw	1.25 m	32 mm
A minimum of 40 anchors should be used to secure each roll of ScourShield. Some sites may require additional anchors.		



ScourShield does not take the place of conventional erosion control measures such as Turf Reinforcement Mats (TRMs), Erosion Control Blankets (ECBs) or even sod. These measures are needed to protect the soil and are suitable when used within their respective hydraulic limitations.

ScourShield is designed to protect these measures when used in areas beyond their respective hydraulic limitations.

