

CASE STUDY

Erosion Control | Reinforcement | Luipaardsvlei Landfill, Roodepoort, Gauteng

August 2011

Client Mogale City Municipality
 Contractor King Civil Engineering
 Product **SoilSaver®** | 60 000m²

Consultant Proplan
 Rep Winnie van der Merwe

Problem

Once the Luipaardsvlei landfill had been capped with a 300 mm compacted clay liner (CCL), a 200 mm layer of topsoil was laid down over it. It soon became evident to the consulting engineer that the steep gradients of the landfill site would render compaction of the topsoil impossible. The first rains to fall on the hydro-seeded slopes would inevitably lead to complete erosion of the topsoil.

Solution

SoilSaver®, a biodegradable 100% woven jute yarn, was installed on the steep slopes of the landfill, pegged down by means of four wooden stakes per square metre.

In early spring, the landfill slopes were seeded with various types of grass and during rainfall, the jute strands of **SoilSaver®** not only absorbed any splash impact, but also trapped the seeds and soil particles, reducing run-off velocity and preventing soil erosion.

Benefits

Since **SoilSaver®** contains no toxins, plastics or pollutants, its decomposition is ecologically safe, with its fibrous residue being beneficial to the soil structure. Unlike other natural materials, as it decomposes, **SoilSaver®** does not absorb valuable nitrogenous reserves in the soil.

SoilSaver® was simple to install and didn't require skilled labour which is a cost-saver to users.



*Laying **SoilSaver®** in the anchor trench*



***SoilSaver®** edges are overlapped and held in place with wooden stakes.*

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*Luipaardsvlei Landfill slope covered by **SoilSaver**[®], ready for grass re-growth.*