

CASE STUDY

Dam Linings | Water Containment | Stellenbosch, Western Cape

Jun 2012

Client Private

Contractor Cornfield

Product **Envirofix X800 5 000m²**

Consultant Bart Senekal

Rep Norrin Stone

Problem

The property owner decided to reshape an existing dam which is partly used for irrigation of the vineyard and partly aesthetic. Continuously fed from the mountain stream, the dam would remain at full supply level all year round with the overflow routed in a newly constructed "leivoor", back to the river. With no suitable material available on site for construction, a membrane to assist in making the approximately 6400m³ dam watertight, was required.

Solution

The consultant specified **EnviroFix X800** GCL as the most appropriate lining for its low permeability of 3×10^{-11} m/s (equivalent to approximately 1m of compacted clay), high internal shear strength and protective soil covering.

Once the **EnviroFix** GCL was installed, it was covered with 300mm cover soil to confine and protect the GCL as well as maximise the hydration of the bentonite.

Benefits

Envirofix was simple and relatively quick to install.



The re-shaped dam



*Laying **Envirofix** GCL over the prepared surface*



*The layers - prepared surface, **Envirofix**, cover soil*