CASE STUDY:

CHANNEL LINING

EAST VICTORIA
AUGUST 2019

CONCRETE CANVAS

Concrete Canvas is a flexible, concrete impregnated fabric that hardens when hydrated to form a thin, durable, water proof and fire resistant concrete layer. It is the original concrete on a roll.

Concrete Canvas allows concrete construction without the need for plant or mixing equipment. Simply unroll and position Concrete Canvas, and then just add water (any type of water, including sea water).

Concrete Canvas has no impact on the pH of runoff water. Concrete Canvas is widely used as a cheaper alternative to non-structural shotcrete.

Concrete Canvas is used in a variety of civil infrastructure applications, such as ditch lining, slope protection and capping secondary containment bunds.

GEOFABRICS®
Smarter Infrastructure

Geofabrics provides clients with effective options for wastewater capture, storage, distribution and treatment through an innovative range. One of the local water authorities had an issue with an existing water channel. About eight kilometres of the 42 km channel was leaking due to a lack of maintenance over the last ten years. This led the EPA getting involved and working with the water authority to find a potential solution. One of the options was an underground pipeline, but it was ruled out due to cost. They decided to try several solutions which included HDPE, GCL and Concrete Canvas in different sections to determine the best solution.

The channel is a critical asset and can only be turned off for four to five days as there is not enough storage in the system. Diverting the channel was an option but too costly for the initial trial. Concrete Canvas was a preferred solution during the trial as it was quick to install and could be done using their internal staff. It also offers a 50-year life which was necessary as the client is looking for a permanent solution.

Installation was complicated initially due to the time restraints, the base of the channel was soft mud. Geofabrics suggested bidim A44 geotextile as a liner which helped increase production and improved the overall result of the installation.

The initial trial is now complete, and the client will monitor the leaks and how all the solutions perform. The initial feedback is positive towards Concrete Canvas, and this could initially cover up to eight kilometres of the channel that has been recognised as needing remediation in roughly one-kilometre stages. Geofabrics worked with the client so the overall solution in terms of speed of installation and longevity would benefit the client in the long term and save costs.