

## Project Info



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CC8™ Bulk Rolls



20m² per  
structure



Transverse layers



Wardell, New South  
Wales, Australia



Shingleback  
Environmental



CC8™ was specified  
to line a section of an  
oil separator channel  
alongside the Pacific  
Highway



*Completed channel lining installation alongside Pacific Highway*

In December 2019, Concrete Canvas® (CC) GCCM\* was proposed, as an alternative solution to provide erosion control to oil separators alongside the Pacific Highway in the town of Wardell in New South Wales, by Geofabrics' Northern NSW Sales Engineer.

The works were carried out by Shingleback Environmental for Pacific Complete, a National roads programme that aims to create a four-lane freeway along the entire length of the Pacific Highway, the main highway running from Sydney to Brisbane which measures approximately 800km.

The new highway has vegetated channels running alongside it, which eventually lead into natural water courses. In order to prevent the runoff of hydrocarbons from the road entering the natural water courses, the NSW Government installed baffles at the end of the drainage channels. These baffles are designed to prevent the flow of the hydrocarbons, while the clean water can pass underneath. The channels also comply with the growing need for roadside channels in the area to be capable of performing a bio filter function for runoff.

An 8mm thick variant of Concrete Canvas® (CC8™) was installed on the downstream side of the baffles to prevent erosion caused by the restriction of flow created by the baffles, which will result in concentrated flows. CC was ultimately chosen due to its erosion and abrasion resistance properties and its resistance to chemicals, including hydrocarbons.

\*Geosynthetic Cementitious Composite Mat







CC was installed either side of the baffle



Grout was applied around baffle board posts



CC edges were captured within anchor trenches and backfilled



CC lined channel section feeds into an existing water course



Existing water course visible beyond CC lined channel



CC was laid transversely across channel





*The CC will prevent erosion that would otherwise be caused by concentrated flows*

CC8™ was installed transversely across the channel, with edges captured within anchor trenches using ground pegs. Subsequent layers were positioned so as to overlap the previous by 100mm and shingled in the direction of water flow. Overlaps were jointed using stainless steel screws. Where CC was installed below the baffles, the material was cut as required to accommodate them, and the material secured to the baffle itself where required using adhesive sealant to ensure impermeability and prevent water ingress below the material. Once installation was completed, the CC was hydrated. Anchor trenches were then backfilled and the edges of CC around baffle board posts grouted to prevent ingress.

This section of works involved the installation of baffles and lining of the channels in the Wardell area. Following the works, the client specified CC to be retrofitted around a further 65 structures.