The New Perth to Bunbury Highway (NPBH) is a 70.0 km dual carriageway extension linking the Kwinana Freeway to the Old Coast Road at Lake Clifton.

In the Shire of Waroona at the Tylers Pit Cutting section of the NPBH, the median and side swale drains required erosion protection from the excessive road stormwater runoff.

Project civil consultants GHD calculated that the runoff velocity within the swale drains could reach 1.5 m/s so they required a suitable product that would perform under these conditions and in so doing reduce Main Roads WA overall drainage maintenance costs.

A Geofabrics representative proposed a number of erosion control products that would fulfil the product requirements stipulated by the consultant.

After consultation it was agreed that the innovative Geoweb® cellular confinement system would be an ideal solution for erosion protection of the swale drain and also provide soil stabilisation for the infill material.

Onsite construction consisted of a prepared sub base with a bidim® A19 geotextile acting as a separation/filtration layer laid beneath the 75mm high Geoweb®.

The Geoweb® perforated panels were pinned into the existing ground at 1.0 m centres and then filled with a topsoil/mulch. The topsoil/mulch mix was then seeded and vegetated using small ground covering.

The root system of the plants will establish through the Geoweb® perforated panels providing greater soil stability for the swale.

In total 6700m² of bidim® A19 and 75mm high Geoweb® was used on this section of the project.