For over 30 years geosynthetics have been used successfully in the Australian Rail industry for a range of applications including subgrade separation, capping layer stabilisation, ballast optimisation and slope stabilisation.

During this seminar we will discuss recent advances in the application of geosynthetics to solve engineering and maintenance problems specific to the rail sector.

The team will talk about specific geosynthetic solutions for “mud pumping” or “mud holes” and provide international research and case studies on long term performance of these solutions. The seminar will also address recent developments in the use of geogrids and geocells in the prevention of ballast breakdown and reduction of capping layer depths. It will showcase the use of a wireless device – “SmartRock”, embedded in a ballast layer to monitor ballast particle translation and rotation under cyclic loading.

SpectraRail™ Software is a powerful tool which provides Engineers a way of evaluating design options and optimizing railway systems using Tensar® Geogrids. It allows users to evaluate and compare designs for both unstabilized and mechanically stabilized rail trackbeds with a comprehensive cost analysis for each alternative. Slope stabilisation is a very important aspect of rail lines and we will provide information and solutions centred around gabion walls, rockfall protection systems and we will also introduce the recently acquired Concrete Canvas (or “concrete on a roll”) solution.

All of the above rail solutions will be supported by data from international research, case studies highlighting 20+ years of maintenance free service. We will also discuss the life cycle cost savings made possible with use of geosynthetics in rail applications supported by recent Life Cycle Cost Analysis undertaken by an international cost engineering practice.

ABOUT THE PRESENTER

Greg Farrell has been with Geofabrics for more than 30 years and has been involved in the development of the Australian Geosynthetic Industry from the early pioneering days to where it is today. For many years, Greg was the Queensland Manager for Geofabrics and he worked closely with the rail industry in Queensland to assist them with developing the many geosynthetic solutions they currently employ. Greg was also instrumental in the development of the Tracktex Anti-Pumping Geocomposite which is now manufactured in Australia.