Terrawall system

Problem:

Crownsnest lake site is subject to rockfall hazard and has been a part of Southern region Rockfall Hazard Assessment program since 1999.

A major event occurred in June of 2013, when water ran over rock cut across much of the site and dislodged rock on site.

The Site is located at Sentury Mountain along Highway 3. The initial assessment and preliminary design were done by Amec Foster Wheeler. Alberta Transportation wanted to have a more permanent solution and approached Maccaferri Canada Ltd in order to discuss the feasibility of designing a rockfall embankment for this site.
Solution:
Simulations and rolling rock tests conducted by Ministry of Alberta resulted in a series of design parameters that required the structure must be 5.32m in height, have a maximum base width of 6.87m, and be able to withstand a maximum rockfall impact energy of 2300kJ. Terrawall System was selected for this. The Construction was started in June 2016 and ended in August 2016. Maccaferri supplied 600 sq. m of Terrawall system with all accessories. The length of embankment was a set at 80 m.