

IECA AWARDS 2023  
Environmental Excellence  
Award Submission

# Mangamuka Slips and Rehabilitation (Emergency Response) Physical Works

Northland, New Zealand



**coll**  
*SERVICE & SOLUTIONS*

# Part 1 - Summary

The Mangamuka Slips and Rehabilitation Emergency Response project is for the geotechnical repair and rehabilitation of a critical transport corridor/link severely damaged by the major storm event of 19 August 2022. Already compounded by the preceding significant storm events and flooding over the past two years, over 20 sites of road damage resulted from over and under slips, and in one location reducing the two lane winding highway to a single lane. The road constantly remains at risk with every wet weather event, and even more so with events such as Cyclone Gabrielle (12-16 February 2023) – resulting in new slips and saw previously identified slips moving into a 'critical' slip category.

For the safety of all road users and to minimise further damage occurring, this key link (particularly in terms of travel time for the locals) has been closed to all traffic to effect the necessary and timely repair works.

With the project work sites located within the Mangamuka Gorge Scenic Reserve, the project brings a number of challenges to the entire project team (the Client and their consultants, and CLL and their subcontractors and subconsultants) - particularly for carrying out large-scale piling operations in a remote location with varying geology/moving ground, within a restricted travel corridor (with access only from the far North or the South – no throughfare) and minimal work footprints between steep embankments and slopes; respecting the wishes of the hapu – and maintaining an extremely high level of erosion and sediment control for the execution of every physical works site task/activity.

For Emergency Works, there are no Resource Consent conditions outlining compliance which includes environmental management. For this project, in collaboration, the project team and with the approval of the two hapū – taking into consideration the remoteness of the work sites and all the challenges noted above, a number of innovative methods were devised, developed and implemented – and have exceeded best practice performance and met the cultural requirements of the hapu. The control measures have been extended to incorporate sustainability such as recycling captured runoff and settled water.

From a socially responsible aspect, the project has employed local labour, collaborated with local consultants and subcontractors, and utilised local suppliers.

All involved on this project to date, have developed significant knowledge of being able to deliver major construction works while protecting the environment and respecting the culture of the hapu.

