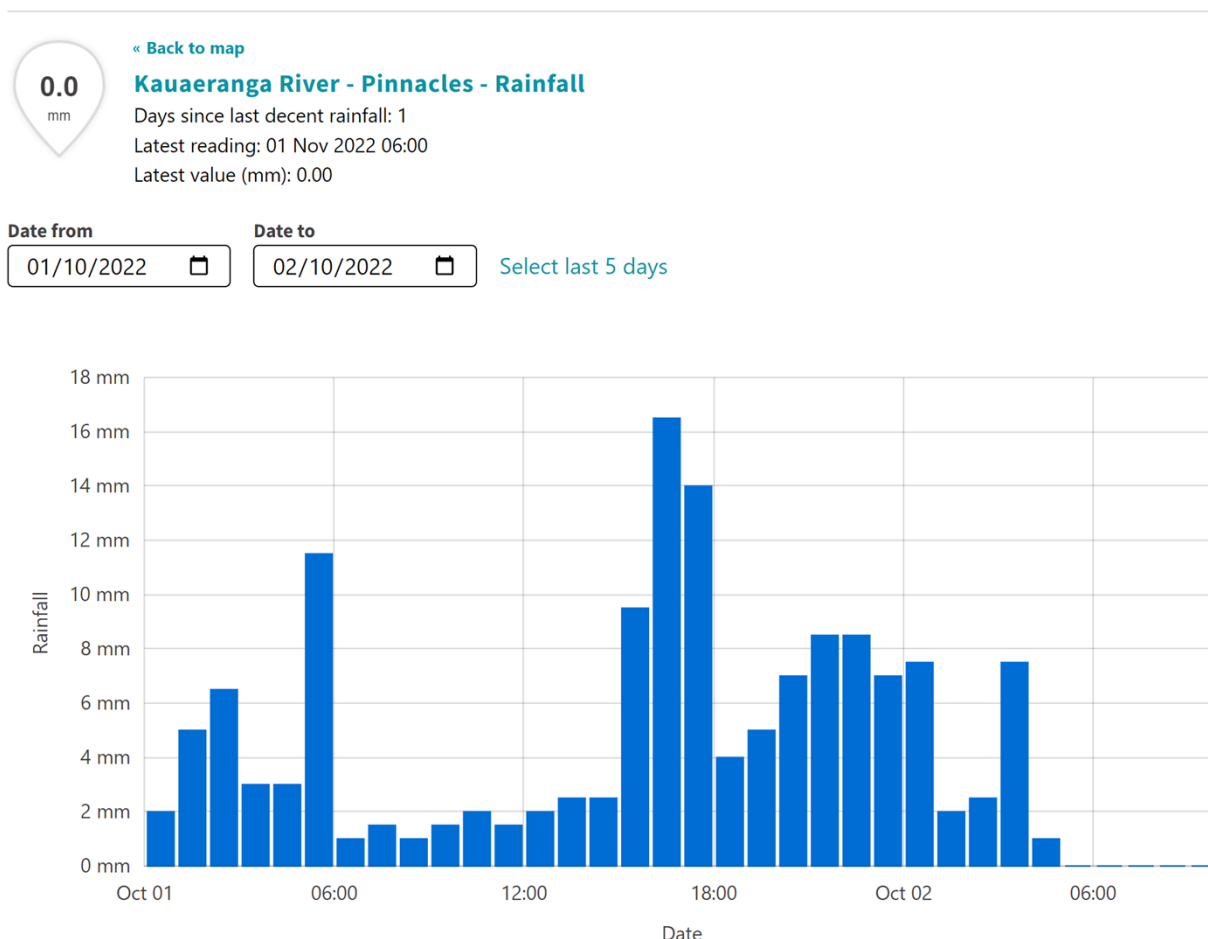


Attachment A
Thames-Coromandel District Council
13 December 2022

Comprehensive Report: 1 October 2022 Storm Event – Event Summary

A significant rain event occurred in the Coromandel area on 1 October 2022. As a result of this we had a significant number of slips and drainage asset damage throughout the network. This resulted in road closures from both slips and flooding.

Data from the Waikato Regional Council rainfall gauge at the Pinnacles in the graph below shows in excess of 156mm in a 24-hour period on 1 October 22. This is an average recurrence interval (ARI) of 1.58 years however the rain gauges are quite some distance from the slip sites and there is no available rain gauge data nearby.



Phase 1 - Initial Response, Clean up & Investigation and Design.

There were a large number of slips, damage and flooding in various sizes across the network. A selection of example photos are shown below, and the costs are shown in Table 1.

These included the following roads:

- Blackjack Road
- Colville Road
- Port Charles Road
- Kennedy Bay Road
- Fletcher Bay Road
- Old Coach Road
- Port Jackson Road
- Stoney Bay Road
- The 309 Road
- Tapu Coroglen Road
- Ward Road (Colville)
- Wood Road

Table 1: Initial Response Phase 1 Cost Summary

Initial Response			
Road	Location & Issue	Permanent Repair	Cost
Network Wide	Network wide slips & drainage asset clearing and hydroseeding of overslip faces	N/A	\$140,000
Total Physical works Initial Response			\$140,000

Desktop and on-site analysis for the 2 permanent repair sites is summarised below with the costs summarised in Table 2. Photographs of the site are included in the next section as further supporting information. It is noted that capturing the scale of the issue can be difficult in a photo taken from the road. For Health & Safety reasons our personnel are instructed to avoid climbing down unstable banks.

Table 2: Phase 1 Investigation & Design Cost Summary

Permanent Reinstatement site list & estimated Investigation & Design costs			
Road	Location & Issue	Investigation & Design Scope	Cost
Colville Road	RP16.1 – Underslip into traffic lane	Site Investigation & boreholes and design and construction docs	\$59,000
The 309 Road	RP16.6 – Overslip through narrow 1 lane section with historic underslip on downhill side	Site investigation & design & contract docs	\$20,000
Total Phase 1 Investigation/Design Professional Services			\$79,000

Phase 2 – Construction & MSQA

Table 3: Phase 2 Construction & MSQA Cost Summary

Permanent Reinstatement site list & estimated construction & MSQA costs			
Road	Location & Issue	Permanent Repair	Cost
Colville Road	RP16.1 – Underslip into traffic lane	Timber Post & Panel Wall	\$350,000
The 309 Road	RP16.6 – Overslip through narrow 1 lane section with historic underslip on downhill side	Gabion Wall with Rock buttress	\$150,000
Total Physical works permanent reinstatement			\$500,000
Professional Services			
Contract Tendering & Admin and MSQA Costs			\$50,000
Total Professional Services			\$50,000
Total Permanent Reinstatement			\$550,000

Cashflows

A 2-phase approach is planned with investigation and design in the 22/23 FY and construction in 23/24. The evidence from the testing will inform the type of engineered wall required. Cost forecasts will be reassessed once the type of wall is known.

Expenditure in the 2022/23 financial year will include;

Phase 1 - Initial Response	\$140,000
Phase 1 - Permanent Reinstatement Investigation & design	\$79,000
Total	\$219,000

Expenditure in the 2023/24 financial year will include;

Phase 2 – Permanent Reinstatement MSQA & Construction	\$550,000
Total	\$550,000

Initial Response Site Photos



Site 1 – Colville Road – RP13.00



Site 2 – Kennedy Bay Road RP3.50



Site 3 – Kennedy Bay Road – RP 5.20



Site 4 – Kennedy Bay Road – RP2.06



Site 5 – Port Charles Road – RP 4.30



Site 6 – Port Charles Road – RP 0.60



Site 7 – Port Jackson Road – RP 24.00



Site 8 – Stoney Bay Road – RP 1.87



Site 9 – Stoney Bay Road – RP 3.80

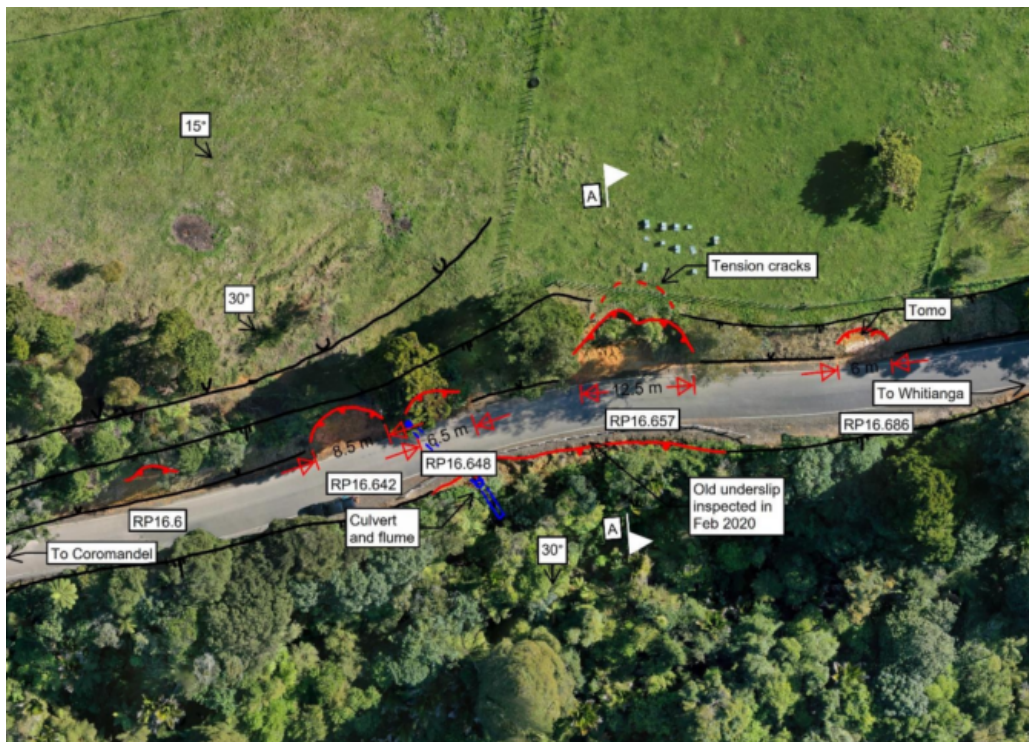


Site 10 - Tuatēawa Road - RP 7.20

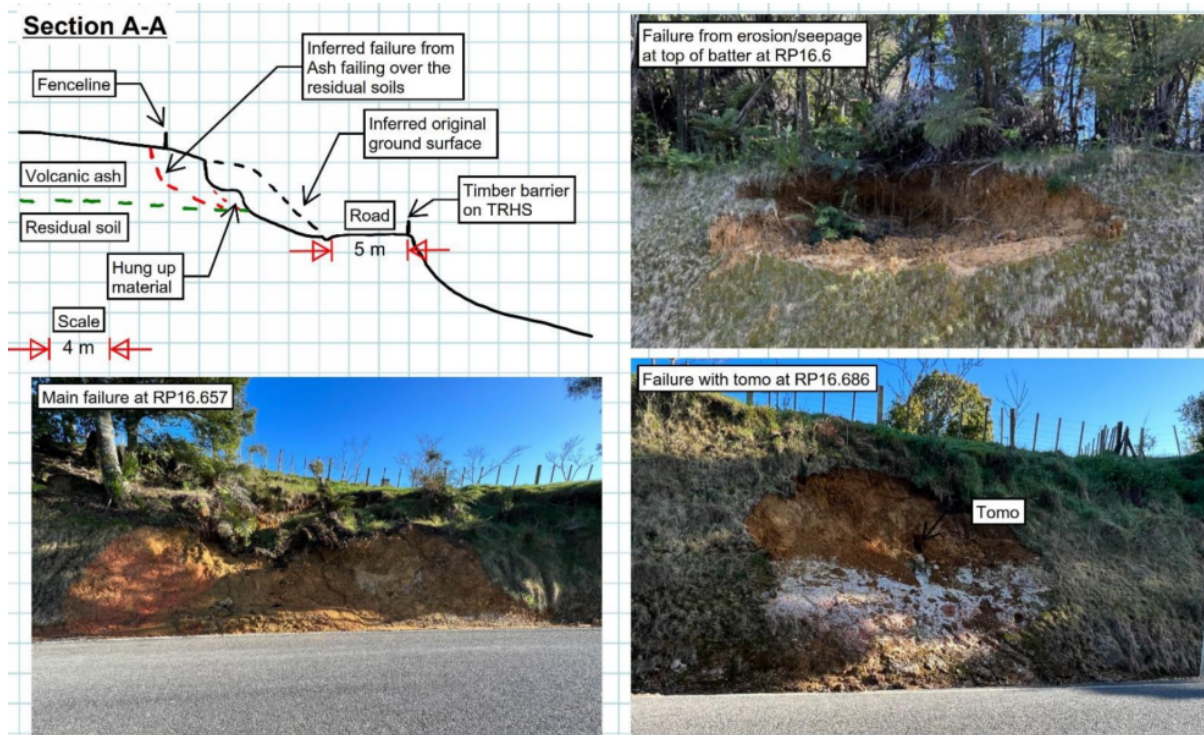
Permanent Reinstatement Site Photos



Site 1 - Colville Road – RP16.1



Site 2 - The 309 Road – RP16.60



Site 2 - The 309 Road – RP16.60