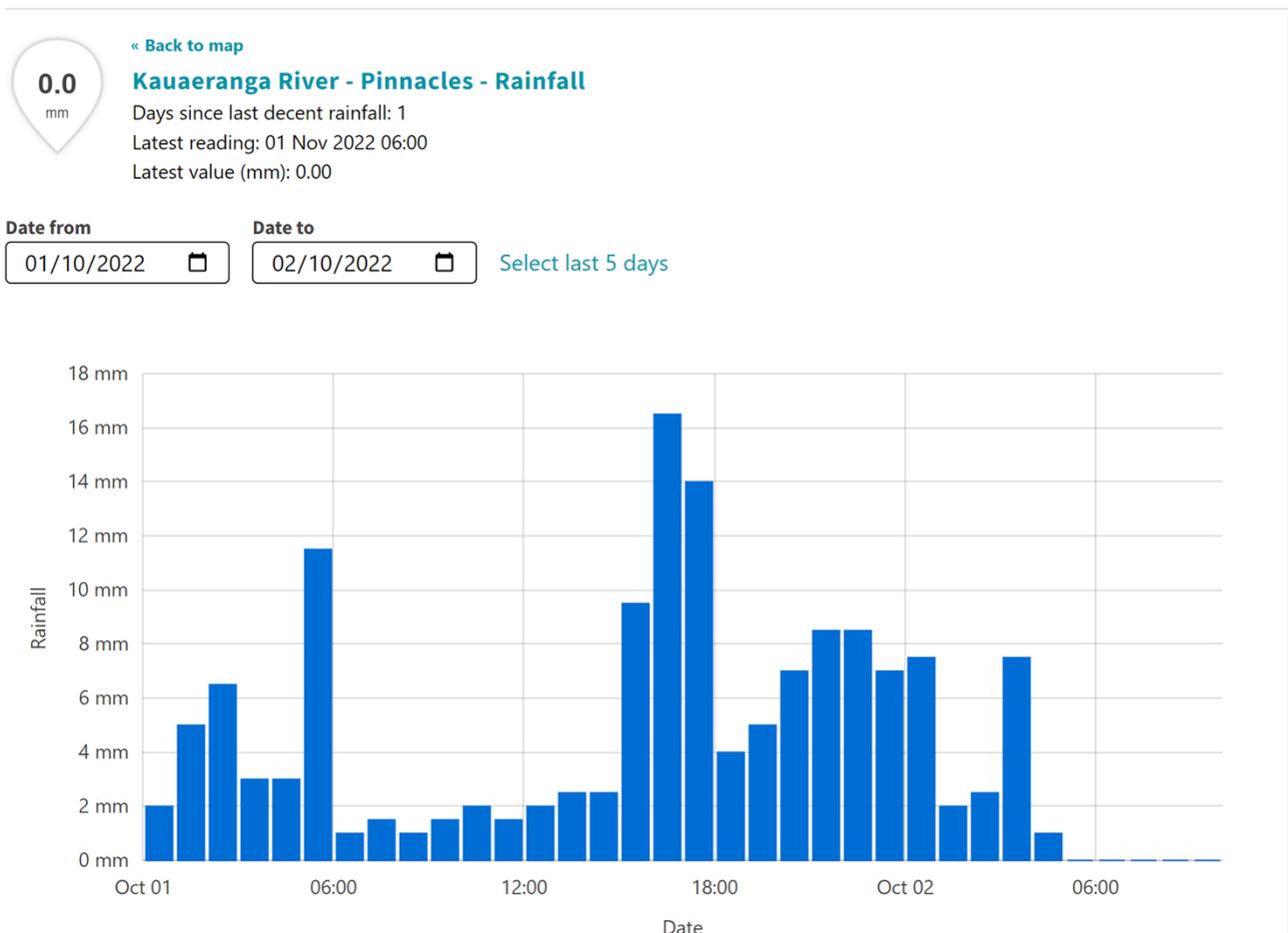


**Attachment A**  
**Thames-Coromandel District Council**  
**13 December 2022**

## 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

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

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

<b>Permanent Reinstatement site list &amp; estimated Investigation &amp; Design costs</b>			
<b>Road</b>	<b>Location &amp; Issue</b>	<b>Investigation &amp; Design Scope</b>	<b>Cost</b>
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
<b>Total Phase 1 Investigation/Design Professional Services</b>			<b>\$79,000</b>

## Phase 2 – Construction & MSQA

Table 3: Phase 2 Construction & MSQA Cost Summary

<b>Permanent Reinstatement site list &amp; estimated construction &amp; MSQA costs</b>			
<b>Road</b>	<b>Location &amp; Issue</b>	<b>Permanent Repair</b>	<b>Cost</b>
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 butress	\$150,000
<b>Total Physical works permanent reinstatement</b>			<b>\$500,000</b>
<b>Professional Services</b>			
Contract Tendering & Admin and MSQA Costs			\$50,000
<b>Total Professional Services</b>			<b>\$50,000</b>
<b>Total Permanent Reinstatement</b>			<b>\$550,000</b>

## 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
<b>Total</b>	<b>\$219,000</b>

Expenditure in the 2023/24 financial year will include;

Phase 2 – Permanent Reinstatement MSQA & Construction	\$550,000
<b>Total</b>	<b>\$550,000</b>

## 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

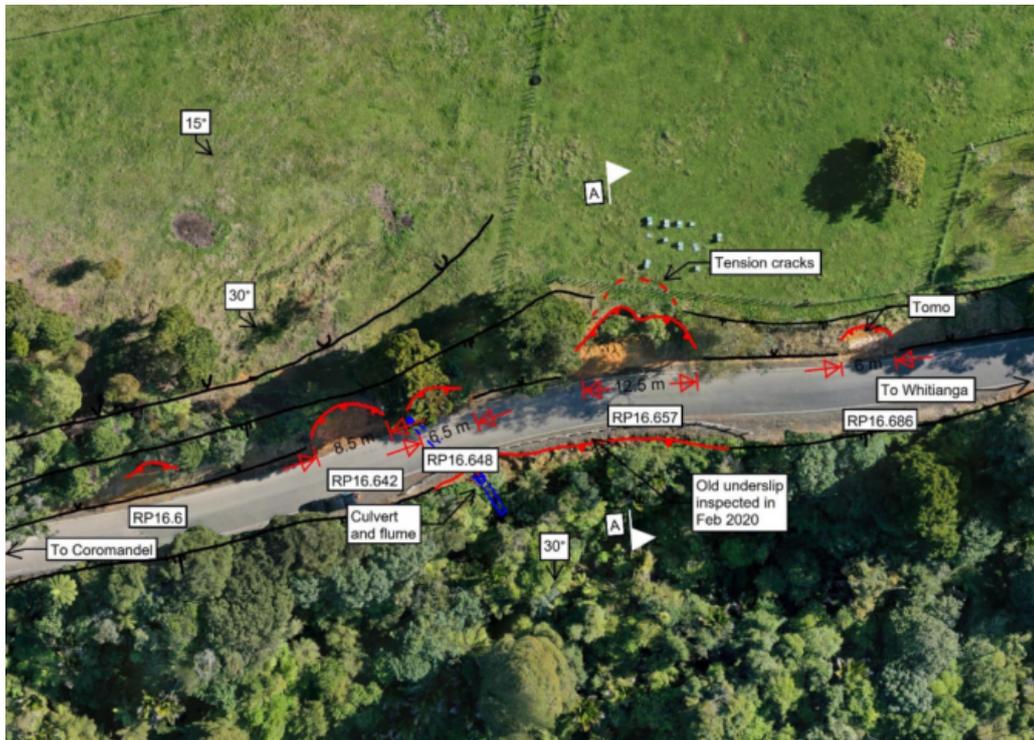


Site 10 - Tuatēawa Road - RP 7.20

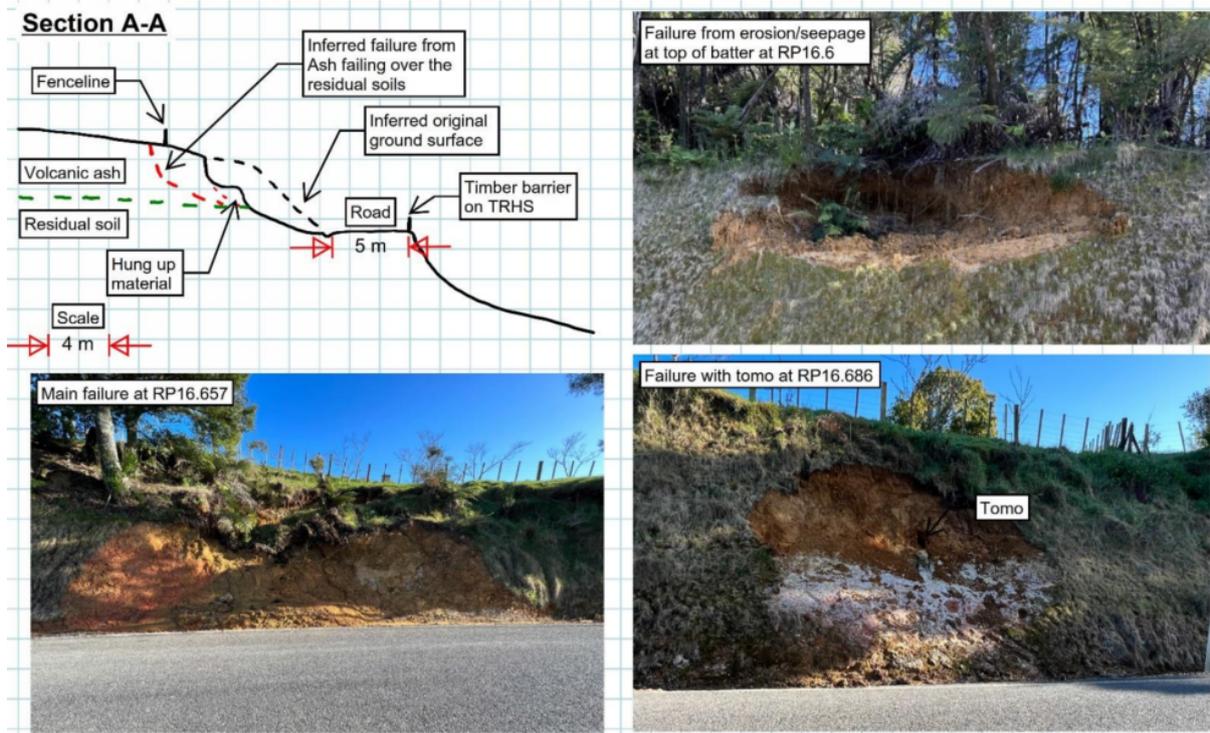
# Permanent Reinstatement Site Photos



Site 1 - Colville Road – RP16.1



Site 2 - The 309 Road – RP16.60



Site 2 - The 309 Road – RP16.60