

Item 1: Meads Road Slip Monitoring

SESSION TYPE: Briefing

PURPOSE/DESIRED OUTCOME:

Reports were brought to the Infrastructure Committee in 2020 and 2021 relating to a slip site on Meads Road, and a monitoring method agreed. The purpose of this briefing is to update the Infrastructure Committee on an updated monitoring method recommended by engineers.

DATE/TIME:

Friday, 25 July 2025 at 10.00am

TIME BREAKDOWN:

Presentation: 15 minutes
Questions: 15 minutes

Prepared by:



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Manager
11 March 2025

Reviewed and Authorised by:



Name: Tony Avery
Title: General Manager Property & Infrastructure
12 March 2025

ATTACHMENTS:

A	Presentation
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Meads Road Slip Monitoring

Update for Infrastructure Committee on new monitoring methodology

BACKGROUND

> Dec 2019 original issue



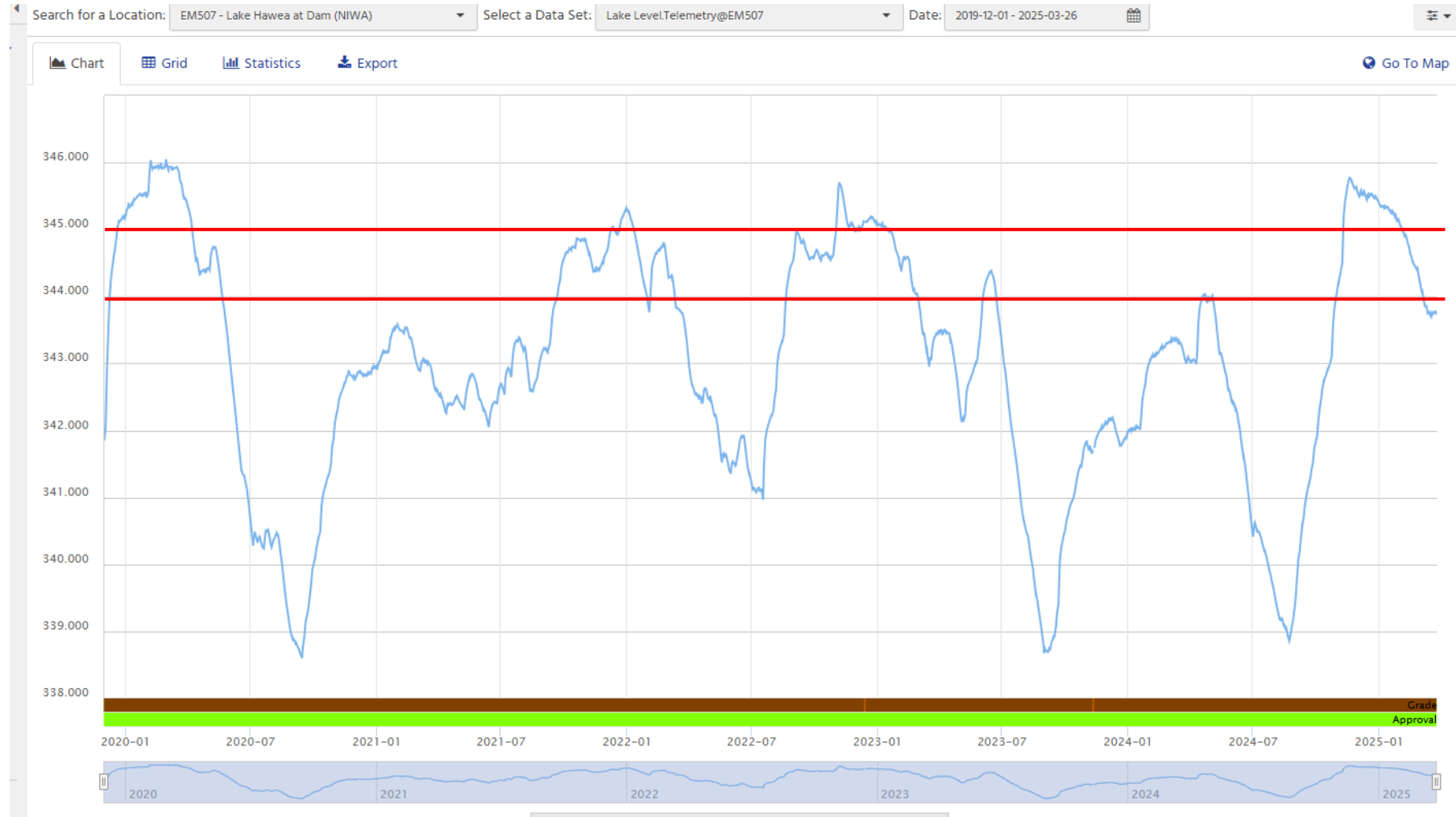
BACKGROUND



BACKGROUND

- > Reports were brought to the Infrastructure Committee in 2020 and 2021 relating to a slip site on Meads Road that occurred in December 2019
- > The first meeting (13-Feb-20) saw the committee resolve for officers to commence design options for repair
- > The second meeting (11-Feb-21) saw those options presented and the committee, with resolution to undertake a minor make safe repair, commence monitoring, and to continue to investigate long term options
- > The minor repairs were completed and a proactive, risk based monitoring approach implemented based on advice from WSP. This approach introduced potential road closures at lake levels above 344m, when combined with wind or wave activity, and mandatory closures at 345m. This approach responded to slip toe saturation as the key risk to mitigate.

WATER LEVELS – INITIAL TRIGGER



MINOR SETTLEMENT 2024

- > Minor settlement observed in 2024 prompted a site inspection by Stantec
- > Observations and advice following has caused us to review the current management approach based on the learnings from the last 5 years.



Figure 3 Downer pictures of settlement
14/11/2024

UPDATE TO MONITORING APPROACH

- > An update has been proposed by Stantec to the monitoring methodology, in February 2025. They were engaged following a site meeting between QLDC officers and Hunter Valley Station representatives (who are impacted by the closures).
- > The basis for the review is that the lake level has been elevated a number of times since the original closure and no direct correlation of slips with the lake level rise has been identified. As such it has been recommended to target monitoring to other key risk influences instead such as rainfall and earthquake.
- > It is believed the recommended monitoring methodology will impact on the station less, while still protecting the public from the overall risk, by aligning to more specific triggers as a result of the information learned in the past 5 years.
- > No further works are planned at present. Any further investment in long term repairs such as retaining, would be very costly, and the feasibility and priority will be explored as part of a planned district wide strategic review of remote roads.

UPDATE TO MONITORING APPROACH

- > Current structures engineers, Stantec, have been engaged to review the risk and recommend keeping a monitoring/management approach, but using rainfall and earthquakes as triggers instead.

Actions to be completed include:

- Erect signage on both the east and west side of the slip site with “Unstable Surface Extreme Care”
- Install monitoring pegs across the slip area
- Install a post to allow repeatable photographs to be taken and compared over time
- Monitor the rainfall at the automated Makarora rain gauge site and close the road at the trigger 5-year ARI rainfall intensity levels over 6 duration.
- Inspect the road following closure due to trigger rainfall and monitor for settlement.
- If the road has been closed, monitor the slip for movement using a string line and pegs so a defensible decision can be made regarding reopening.
- Maintain accurate and readily recoverable records of inspections, closure and monitoring.

DETAILED CRITERION

> Rainfall

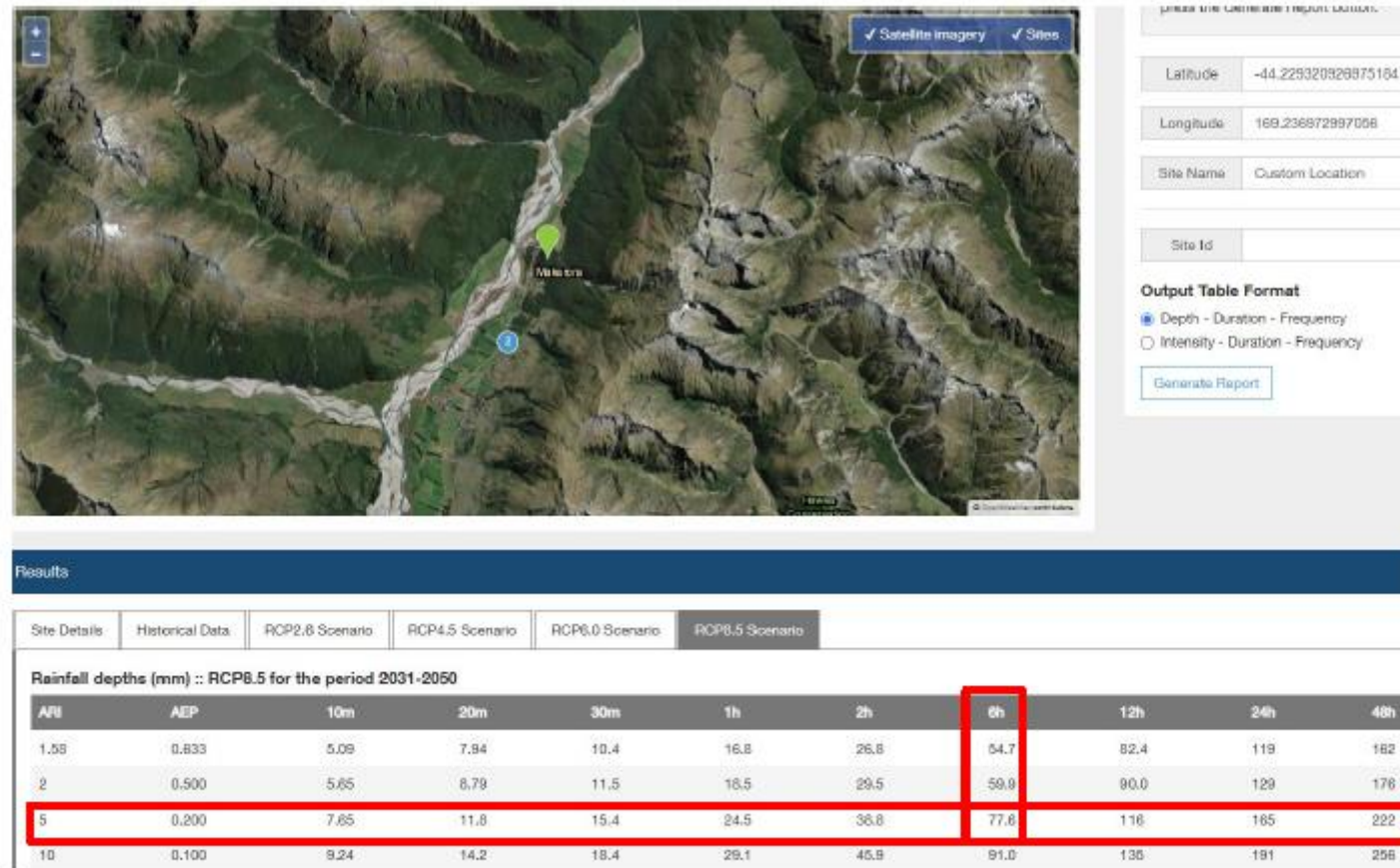


Figure 9 HIRDS ARI rainfall data for the site

DETAILED CRITERION

> Earthquake

Seismic Risk

Stantec recommend that if an earthquake of Modified Mercalli intensity III earthquake, or higher, occurs at either Makarora or Wanaka, then the site is inspected and the road closed if detectable settlement has occurred.