Do Bridges Sink?
McCoy's Bridge – Managing active deficiencies

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Abstract

The Murray Valley Highway Bridge over the Goulburn River (known as the McCoy's Bridge after local identity William McCoy) is a 362m long composite steel and reinforced concrete bridge. Built in 1941, the structure spans both the main river channel and surrounding floodplains.

During the October 2022 floods, while the floodplain was still inundated, it was identified that the structure had visible signs of differential settlement across multiple piers that had progressed since the last Level 3 investigation in 2014. This bridge provides a key link for the community and when closed/restricted access following the floods, resulted in an hour-long detour for residents and transport operators.

This paper details the underlying foundation deficiencies identified within the structure, and how the Department of Transport & Planning (DTP) utilised targeted inspection, measurement, assessment, and risk management to enable the bridge to be reopened and reinstate critical community access across the structure, whilst managing an active deficiency and mechanism within a structure that was still under active flooding.

The paper also summarises the learnings that may benefit road managers with similar assets issues, including closing plausibility gaps and contextualising survey data through to making informed engineering decisions.