

# 1 Introduction

## 1.1 Project overview

The 'Richmond Bridge and Approaches Congestion Study' is a corridor options study funded by the Australian Government to address traffic congestion on Richmond Bridge and its approach roads and to reserve a road corridor for future traffic needs.

Richmond Bridge and its approach roads comprise a two-lane (one lane in each direction) configuration. Richmond Bridge is listed on the RMS S170 Heritage and Conservation Register as an item of significant state heritage. The town of Richmond is also a Macquarie town important for its streetscapes and heritage character.

The corridor comprising March Street, Kurrajong Road, and Bells Line of Road, between East Market Street, Richmond and Grose Vale Road, North Richmond currently experiences traffic congestion issues eastbound in the morning (AM) peak period and westbound in the afternoon/evening (PM) peak period. The Richmond Bridge is located to the western end of the study area and is the only Hawkesbury River crossing serving the residential areas of North Richmond, Kurrajong, Bilpin and Bell. The roads approaching the bridge comprise a two-way, two-lane configuration.

The Australian Government has provided funding to RMS to undertake a strategic concept options study to develop suitable options that address the traffic congestion issue in order to reserve a road corridor for future traffic needs in the vicinity of the existing bridge.

The study has been split into two stages. Stage 1 was completed by Hyder Consulting Pty Ltd (Hyder) and identified short term strategies to address the congestion issue (up to 2021). Stage 2 currently being undertaken by SMEC (Australia) Pty Ltd (SMEC) on behalf of RMS identifies long term options to address congestion (beyond 2021 to 2036).

As part of reviewing and addressing the congestion issue, Hyder assessed the performance of Richmond Bridge and its approaches and developed short term (up to 2021) solutions to traffic congestion along the corridor. The Stage 1 proposals developed included intersection treatments and localised measures such as the removal of on-street parking during peak periods. In July 2012 a consultation workshop was held with members of the public to present the Stage 1 proposals. This forum was also used to gather information from the public with regard to long term solutions. This information has been considered in the refinement of the strategic concept options developed for the long term measures for Stage 2 and which are presented in this report.

## 1.2 Purpose of this report

The Australian Government has provided funding to RMS to undertake a strategic options study to develop suitable options that address the traffic congestion issue. The focus of the study is to provide a long term solution (to 2036) to the traffic congestion along the corridor. Options that have been developed also investigated provisions for improved flood immunity.

This report has been prepared to summarise the investigations undertaken as part of the Stage 2 study to address traffic congestion along the March Street, Kurrajong Road and Bells Line of Road corridor between Richmond and North Richmond.

Stage 2 of the study assessed the short term proposals developed for Stage 1. Four strategic concept options have been developed for Stage 2 and have been assessed across a range of criteria and strategic cost estimates have been prepared for cost comparison. This report also presents the outcomes of this assessment.

### 1.3 Project justification

Urban expansion and land use changes in north-western Sydney have contributed to the traffic growth on the existing road network. Consequently, during morning and afternoon peak periods, Richmond Bridge and its approach roads between East Market Street, Richmond and Grose Vale Road, North Richmond experience traffic congestion. The Level of Service along this section of road is below the average for similar roads in Sydney and will worsen without increases in the capacity of the corridor to address projected future development in the area.

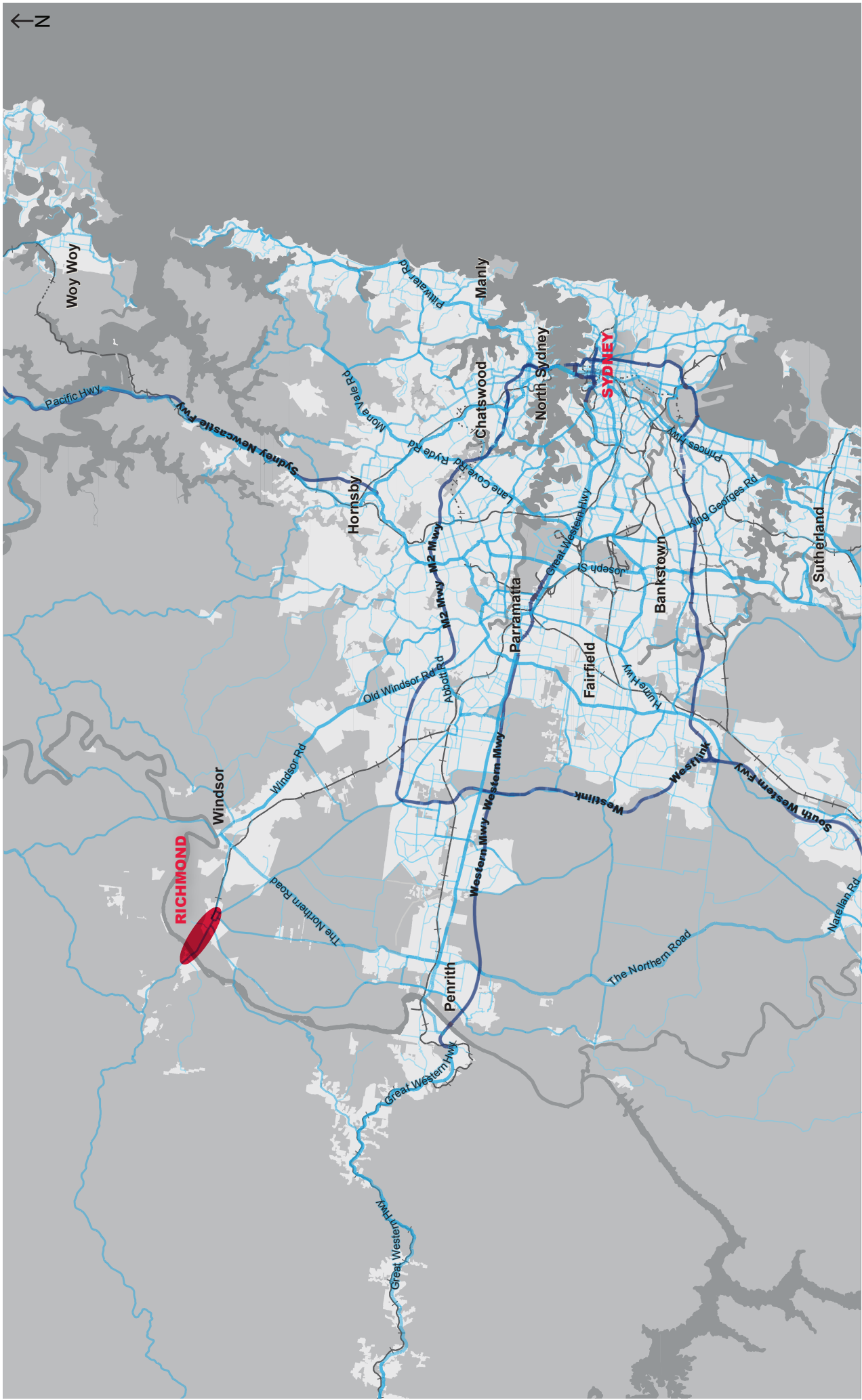
In addition consideration has been given to the opportunity to develop options that provide a higher level of flood immunity thereby reducing the impact of floods and associated access restriction on the local community.

### 1.4 Study area

The study area includes the corridor comprising March Street, Kurrajong Road, and Bells Line of Road and extends from East Market Street, Richmond to Grose Vale Road, North Richmond including the Richmond Bridge. The Richmond Bridge is located to the western end of the study area and is the only Hawkesbury River crossing serving the residential areas of North Richmond, Kurrajong, Bilpin and Bell. The roads approaching the bridge comprise a two-way, two-lane configuration. Figure 1 shows the location of Richmond and Figure 2 shows the study area.

The study area was divided into four distinct sections in as part of the initial option development process. These sections were:

- Section 1: Richmond area
- Section 2: Kurrajong Road
- Section 3: Richmond Bridge
- Section 4: North Richmond



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Figure 1 - Location of Richmond



Source - Vector Backdrop Data © 2011

Figure 2 - Study area