

10 year performance review of insitu stabilised unsealed roads

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Background:

The members of AustStab have worked continuously with rural local government engineers in Australia to develop long term cost effective solutions aimed at minimising dust generation and reducing the maintenance frequency of unsealed low volume roads. Prudent spending of limited road maintenance funding is paramount to Shires, and beneficial to rate payers and the wider public users of these roads. In 2007, AustStab received research funding from the then Department of Infrastructure, Transport, Regional Development and Local Government to conduct four trials of insitu stabilisation of unsealed roads.

The trial sites are located in south west NSW and are listed as follows:

1. Woodlands Road, Wombat
2. Back Mimosa Road, Temora
3. Barber and Griffith Roads, Griffith
4. Old Corowa Road, Jerilderie
5. Four Corners Road, Jerilderie

All treated unsealed roads had a permissible maximum speed limit of 80 km/h, with some sections limited to 60 km/h due to the close proximity of trees to the edge of the road. The goals of this research project were to:

- substantially reduce dust generation from unsealed roads
- reduce maintenance frequency and hence maintenance costs for Shires
- provide safe all-weather access on unsealed roads
- incrementally improve the structural strength of the road

Purpose:

The purpose of this report is to provide a performance appraisal of these unsealed road trials after 10 years of trafficking and compare the performance of the insitu stabilised sections against the control sections (i.e. traditional gravel treatment for unsealed roads in the Shire). During the first two years after construction, a series of inspections were carried out and reported by George Vorobieff (Vorobieff, 2010).

This report provides an assessment of the performance of these trials as well as recommendations for further research and changes to specifications and design practices to increase pavement performance.