



Office of the Auditor General Western Australia

MAINTAINING THE STATE ROAD NETWORK

Report 6 – June 2009

Background

Roads need regular maintenance to keep them safe, accessible and serviceable. There are two main types of road maintenance; reactive repairs, such as fixing potholes and cracks, done on a day-to-day basis, and planned maintenance, which has long-term benefits and involves the resurfacing and rebuilding of the roads.

Main Roads Western Australia is responsible for maintaining the freeways, highways, main roads and bridges on the state road network. This network provides the major transport links between and within the regional and metropolitan areas of WA. It is approximately 17 800 km in length and valued at \$35 billion.

Between 1999 and 2002, Main Roads contracted out its road maintenance function through eight contracts, each lasting 10 years. The contracts aimed to achieve cost savings whilst maintaining the condition of the roads to agreed levels.

We examined Main Roads' maintenance of the roads with a focus on the condition of the state road network, the delivery of maintenance on the network, and the link between maintenance and safety related issues.

Examination conclusion...

The condition of the state road network has deteriorated since Main Roads contracted out its road maintenance. Although the road surface is generally smooth, the average age of the road network is steadily increasing with nearly one third of the network having now reached the end of its design life.

The road maintenance contracts have not delivered adequate levels of planned maintenance and contract costs have increased. Addressing the overdue planned maintenance will be expensive and effectively targeting any restoration will be difficult for Main Roads due to a lack of some key information about the condition of the road network. Such information is essential for deciding where, when and what type of maintenance is needed to ensure optimal cost effectiveness. Main Roads has learnt a number of lessons from the existing approach and will need to apply these to new maintenance contracts.

What the examination found...

- *Roads are at increased risk of structural failure because levels of planned maintenance have declined over the past 10 years – resurfacing by 30 per cent and rebuilding by 80 per cent. Delaying planned maintenance will have long-term cost implications.*
- *Planned maintenance has declined, mainly because the road maintenance contracts did not adequately specify road condition measures that would deliver the necessary planned maintenance.*
- *The estimated cost of eliminating existing overdue maintenance may exceed \$800 million.*
- *Contract prices have increased. Expenditure under the 10 year contracts is likely to be \$467 million (59 per cent) greater than estimated in 1999. The major reason for this was the increase in global oil prices.*
- *Weaknesses in the contracts have meant that Main Roads could not adequately ensure the contractors met all agreed outcomes.*
- *Responsibility for any deterioration in the road network was not effectively transferred to the contractors; there is a risk the state will bear the cost to restore the network to its previous condition.*
- *Main Roads lacks some key information about the condition of roads to accurately determine when, where and what type of maintenance needs to be done to ensure the cost effectiveness of future work.*
- *Lessons from current contracting arrangements are being used to inform Main Roads' development of new maintenance contracts.*

What the examination recommended...

Main Roads WA should:

- **ensure effective management of its road asset through the identification, prioritisation and planning of maintenance work**
- **accurately determine levels of overdue resurfacing and rebuilding maintenance, including a review of bridge maintenance estimates**
- **improve and validate predictive modelling for future planned maintenance needs**
- **fully cost the value of actual levels of overdue maintenance, and construct a plan on how the work will be done**
- **determine when to do planned maintenance to minimise costs over the life of the road network (the 'tipping point')**
- **improve and update technical knowledge and skills to enable better road management**
- **improve maintenance management systems and integrate them with contractors systems**
- **apply lessons learned when developing and managing the new contracts**
- **develop and implement a comprehensive strategy to improve skid resistance across the network**
- **standardise monitoring and evaluation of road maintenance work identified during fatal road crash investigations.**

A copy of the report can be accessed at www.audit.wa.gov.au
For further information contact by email: info@audit.wa.gov.au