

Maintaining State-Controlled Roadways

Tabled 22 June 2017

This presentation provides an overview of the Victorian Auditor-General's report *Maintaining State-Controlled Roadways*.

Background



Roads in poor condition



Increased fuel usage



Increased vehicle maintenance costs



Increased travel times



More expensive to maintain and repair

Roads in poor condition cost the community through increased fuel usage, increased vehicle maintenance costs and increased travel times.

When road pavements—the surface of the road—are in poor condition, they are also more expensive to maintain and repair.

Road network

24 000 km arterial roads managed by VicRoads



Arterial roads:

- make up 12% of the state's road network
- designated freeways and major links
- connect cities, towns and major suburbs

Network divided into:

- five regional areas
- two metropolitan areas



VicRoads manages about 24 000 kilometres of arterial roads throughout Victoria. While this is around 12 per cent of the state's road network, arterial roads are important as they are designated freeways and major links connecting cities, towns and major suburbs.

What we looked at and how



Is VicRoads' road pavement maintenance program soundly based?

Audit scope

- VicRoads:
 - use of funding
 - planning
 - road condition
- Ten-year time period

The audit examined whether Victoria's road network is being effectively and efficiently maintained.

We gained a statewide perspective by examining VicRoads' head office's processes and looked at how these were implemented in two of VicRoads' regional offices.

We focused on road pavement because it accounts for most of VicRoads' spending on road maintenance.

Road maintenance

Limited targeted early intervention

Road network has deteriorated

Increasing maintenance backlog and lower levels of service for road users



Failing to address these issues will reduce transport efficiency and pose significant risks to the safety of road users



VicRoads is aware of the need for a more strategic approach and is working towards improving its road pavement asset maintenance practices

Targeted early intervention, which can prevent roads from needing more costly and extensive maintenance, has been limited and VicRoads' road pavement condition data indicates that the road network has deteriorated.

This results in an increasing maintenance backlog and lower levels of service for road users.

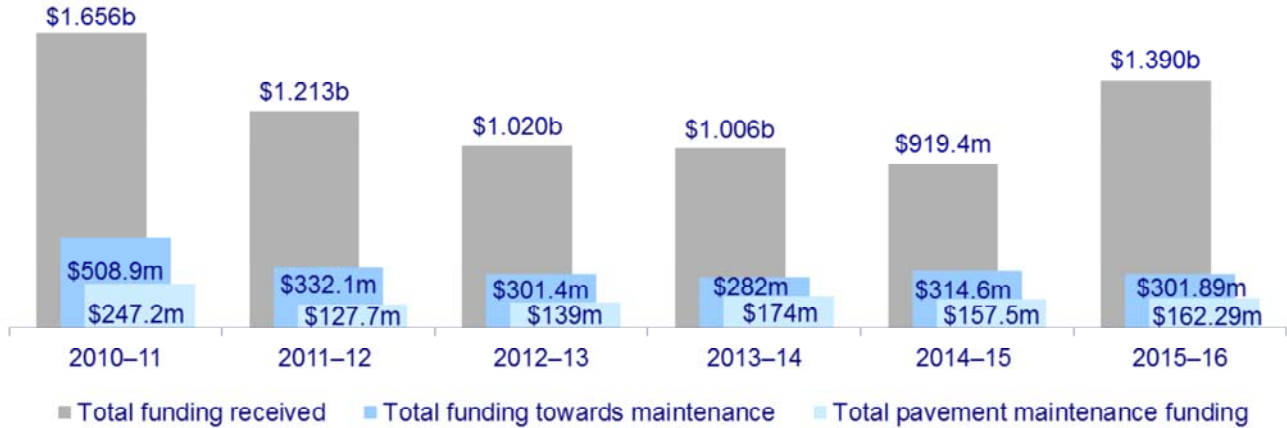
Failing to address these issues will reduce transport efficiency and pose significant risks to the safety of road users.

VicRoads is aware of the need for a more strategic approach and is working towards improving its road pavement asset maintenance practices.

Funding

Decreased funding → VicRoads focuses funds on critical jobs and does not consider preservation of other roads

Annual funding in real terms, 2010–11 to 2015–16



Total funding for VicRoads has decreased since 2010–11 by 16 per cent and maintenance funding by 41 per cent. With funding constrained, VicRoads adopts a worst first approach, focusing funds on the most critical maintenance jobs, and does not consider preservation of roads that are not yet in critical condition.

Road condition

Roughness



Rutting

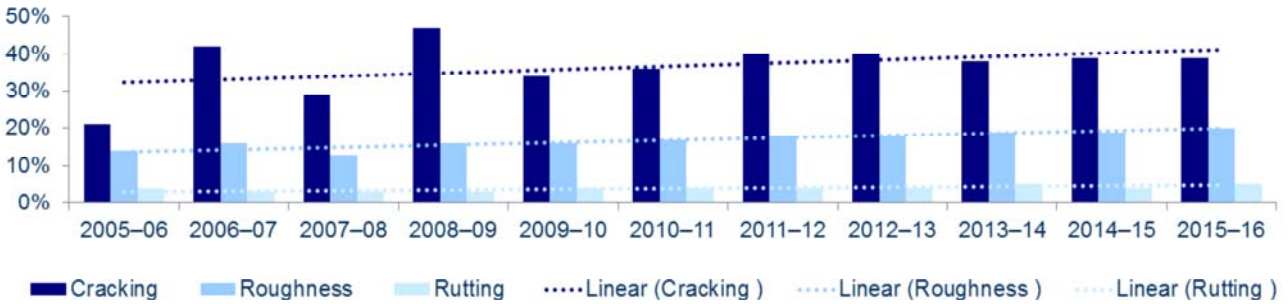


Cracking



Statewide cracking, roughness and rutting, 2005–06 to 2015–16

Percentage of network length



VicRoads collects a range of data about road condition. Key measures include the extent of roughness, rutting and cracking of road pavement. Based on this data, the proportion of the road network affected by these defects has been a steadily increasing across the state over the last decade.

Strategic framework

- Weaknesses in VicRoads' strategic framework
- No current strategic plan that identifies outcomes, explains target levels of service or expected costs



Pavement maintenance funding driven by regionally determined priorities, rather than directed to whole-of-network needs.

There are weaknesses in VicRoads' strategic framework and there is no current strategic plan that identifies outcomes, explains target levels of service or expected costs.

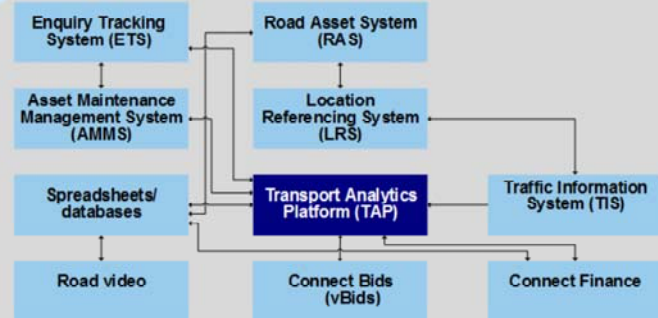
As a result, pavement maintenance funding has been driven by regionally determined priorities, rather than directed to whole-of-network needs. VicRoads has advised us that it is in the process of updating its asset maintenance strategy.

Systems and data



- Disparate systems and datasets
- Data not fully maximised

- VicRoads is developing a centralised data warehouse—the Transport Analytics Platform (TAP)



- VicRoads is using its pavement management system to inform its statewide program

VicRoads does not make full use of available data to inform the development of its road maintenance program.

Pavement condition data collected has not been used in the past to drive statewide decision-making.

VicRoads uses several disparate systems and datasets from different sources to monitor and inform its road maintenance activities.

To address this, VicRoads is developing a centralised data warehouse—the Transport Analytics Platform (TAP). TAP is yet to be fully implemented, but the project team advised that some datasets will be available to users in July 2017.

VicRoads is working on a number of asset maintenance reforms, including the introduction of a pavement management system for pavement modelling. It used this system recently to forecast pavement condition based on various funding scenarios, as part of preparing the 2017–18 State Budget funding submission.

Road maintenance programs

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VicRoads outsources most of its approved road maintenance programs



No clear outcomes for road pavement maintenance → regions have different ways of measuring contractor performance

No complete picture of contractors' performance in terms of cost efficiency or quality of work

VicRoads outsources most of its approved road maintenance programs. VicRoads does not have clear outcomes for this work, and the regions have devised their own ways of measuring contractor performance. This approach does not provide a complete picture of contractors' performance in terms of cost efficiency or quality of work.

Road maintenance programs

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No meaningful or comprehensive public reporting on the its road pavement maintenance program

Reporting does not transparently show the deterioration and suggests that there has been little variation



VicRoads recognises that it needs more meaningful indicators for public reporting

VicRoads does not meaningfully or comprehensively report to the public on the outcomes or effectiveness of its road pavement maintenance program. Current reporting does not show the deterioration occurring in the network and suggests that there has been little variation over the past five years. VicRoads recognises that it needs more meaningful indicators for public reporting.

Recommendations

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5 Recommendations for VicRoads

- Develop a road maintenance strategy with clear objectives, outcomes and measures
- Revise its roads program guidelines so that they clearly describe how pavement condition data is to be used to prioritise pavement maintenance programs
- Revise road inventory and pavement condition data requirements and develop appropriate processes for data validation, storage and dissemination
- Develop statewide key contract outcomes and relevant and appropriate indicators
- Meaningfully report on road condition and performance

We made five recommendations to VicRoads relating to its strategic framework, data requirements, performance measurement and reporting.

VicRoads accepted all recommendations and has begun work to address these issues as part of its asset reform work.

VicRoads has a significant challenge ahead given the size of the road network it must manage, and the declining funding it receives to maintain it.

For further information, please view the full report on
our website: www.audit.vic.gov.au

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