

# REVITALISING ROAD SAFETY AUDITS

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## Paper Summary

The Roads and Traffic Authority of New South Wales (RTA) undertook an evaluation of its road safety audit system and resources to establish where the road safety audit system / framework could be fruitfully targeted for revitalisation. An enhancement strategy was developed which included policy and procedure enhancements, training advancements, road safety auditor accreditation improvements, information system developments and communication / implementation plan completion. To help revitalise this road safety tool, further actions which can be undertaken by local governments are also discussed.

## Introduction

An effective road safety audit system / framework has great potential for improving road safety. An evaluation of the Roads and Traffic Authority's (RTA) road safety audit system and resources was undertaken to establish which areas could fruitfully be targeted for improvement.

This paper addresses the following questions:

- What is a road safety audit?
- Why undertake road safety audits?
- What is RTA doing to revitalise its road safety audit system/framework?
- What can local government do to revitalise road safety audits?

## What is a road safety audit?

A road safety audit is a means for assessing a road's safety performance and crash potential at various stages of a road/project's life cycle. A road safety audit is defined by Austroads as "...a formal examination of a future road or traffic project or an existing road, in which an independent, qualified team reports on the project's crash potential and safety performance..."

Road safety audits need appropriate support systems / frameworks to maximise their value. The system / framework should include:

- Effective policies and procedures;
- Management systems; and
- Adequate resources.

## Why undertake road safety audits?

Road safety audits take the principles of the safe systems approach and apply them proactively. The safe systems approach is recognised as a guiding principle for road safety and emphasises the way different elements of the road transport system combine and interact with each other to produce an overall effect on road trauma. The safe systems approach underpins current national road safety strategy. This approach promotes the building of a road transport system where fatal and serious injury crashes are not acceptable, recognises that safe travel is a shared responsibility between road users (who are expected to be alert and compliant) and road system designers/operators, and acknowledges that driver errors should not result in fatal or serious injury. The integrated elements of the 'safe system' include road and roadside infrastructure, vehicles, vehicle speeds (including speed limits) and compliance of road users with the law. The interplay of these elements, supported by strong road safety management systems, delivers sustained improvements for road safety.

The key outcomes of the road safety audit system / framework are therefore to minimise road trauma through:

- Crash prevention/avoidance – the road and road related areas (eg. footpaths, road shoulders, hazard corridors, etc.) should be designed, built and maintained to warn, inform, guide and control the road user (eg. pedestrian, motorist, cyclist, etc.) of the required action/s and to minimise the consequences should a road user make an error. A well designed road should allow road users to accurately perceive the “demands” of the road and road related areas, and perform the required road user task. It is about reducing the number of crashes; and
- Injury prevention/avoidance – if there is a failure in the road user’s ability to accurately perceive the “demands” of the road and road related areas then the road and roadside should be forgiving through design by either allowing the road user to recover and continue or by minimising the severity of the crash. That is, rather than ‘blaming the victim’ for causing crashes, the risk of human error is anticipated and ‘tolerated’ by a ‘forgiving’ system that has been designed, maintained and operated to ensure that the consequences of human error result in non-fatal crash outcomes. The design challenge is to manage loss of control of kinetic energy within tolerances survivable by the human body. It is about reducing the severity of crashes.

A safe functioning road and roadside requires a combination of treatment measures that adopt a holistic view of road safety. Such a view recognises that road design is fundamental to crash performance. The road safety audit system / framework is all about risk management with the key objective of minimising risk to all road users.

### **How did RTA review its road safety audit system / framework?**

#### ***RTA’s existing road safety audit systems and resources***

RTA has the following support systems / framework available to maximise the value obtained from its road safety audits:

- Technical direction / policy for the design phase and pre-opening stage road safety

audits relating to specific funding program projects. TD 2003 / RS03 *Policy for road safety audits of construction and reconstruction projects*, version 2 August 2005.

- Guide / procedures for conducting road safety audits. RTA (2005) *Accident Reduction Guide, Part 2: road safety audits*.
- Road safety auditor training courses and road safety auditor refresher courses conducted by the Institute of Public Works Engineering Australia (IPWEA) NSW.
- Web-based road safety auditor accreditation scheme administered by IPWEA (NSW) [www.roadsafetyauditors.com.au](http://www.roadsafetyauditors.com.au).
- Panel of contractors for the supply of road safety audit professional services for RTA.
- Individual regional databases to collect and report on corrective action requests from road safety audits in the particular RTA region.

#### ***Review methodology***

Evaluations of the RTA’s road safety audit systems and resources were undertaken to establish which areas of the road safety audit system / framework could be targeted for improvement. The evaluation was conducted in two distinct stages:

- A. An internal workshop to identify and prioritise all concerns related to the road safety audit program; and
- B. A formal systems audit of the road safety audit process across the organisation to assure that the road safety audits process was undertaken effectively, efficiently and in compliance with RTA policy.

As part of the systems audit, a number of case studies from different work areas across the organisation were comprehensively reviewed. This involved examining 43 road safety audit reports, based on maintenance, development, traffic and road safety projects ranging in total costs from \$115,000 to \$121 million. It is acknowledged that the appraisal was based on a small sample, however, this provided a direction of where focus was needed in the complete process. The results were categorised into the following indicators:

- understanding of road safety audits,
- awareness of RTA policy, and
- indication of quality outputs.

The RTA's evaluation process identified systems and resource areas where further enhancements could be undertaken to improve the application of this road safety tool. In summary, the evaluation indicated opportunities for improvements by reviewing:

- guidance to improve understanding of the road safety audit system / framework and the quality of road safety audits,
- training to improve understanding of road safety audit system / framework and the quality of road safety audits,
- auditor performance systems to improve quality of road safety audits, and
- communications to improve awareness of RTA policy,
- information systems to improve understanding, awareness and quality of road safety audit system / framework.

### **What is RTA doing to revitalise the road safety audit system / framework?**

#### ***Policy and procedures***

To improve the understanding, practices and quality of road safety audits the RTA is comprehensively reviewing its policy and procedures in relation to road safety audits.

RTA's current policy in relation to road safety audit system / framework is being thoroughly reviewed in relation to coverage, policy statements, intervention levels of when to road safety audits, implementation and management procedures. A policy relating to road safety audits of existing roads is also being developed / incorporated into this document. A strong focus is being placed on the policy being practical to ensure successful implementation and monitoring.

The RTA's *Accident Reduction Guide Part 2 Road Safety Audits* is being comprehensively reviewed and expanded to include guidance for:

- project managers commissioning road safety audits, including preparing project briefs, selecting road safety audit teams,

providing background information and holding commencement meetings;

- road safety auditors conducting road safety audits, including attending the commencement meeting, conducting the road safety audit, drafting the road safety audit report, discussing audit findings at the completion meeting and finalising the road safety audit report;
- project managers completing road safety audits, including and accepting road safety audit reports, undertaking risk assessments, developing mitigating actions, and documenting activities;
- program managers checking road safety outcomes, including monitoring corrective and preventative actions, undertaking trend analysis, developing actions to address identified trends and documenting activities; and
- projects managers, road safety auditors and program managers on other road safety audit related aides / toolkits including accessibility and areas of beneficial application of the aides.

Enhancements in both the policy and procedures will strengthen the understanding, expectations and practices in the road safety audit system / framework which would heighten the quality of road safety audit outputs.

#### ***Training***

To improve the understanding, performance, communications and quality of road safety auditors and project managers in relation to road safety audits the RTA is reviewing internal training needs and opportunities as well as working in partnership with the IPWEA (NSW) in reviewing the IPWEA's road safety audit training courses.

The RTA promotes the current IPWEA (NSW) road safety audit training course and IPWEA road safety audit refresher course as the preferred training in relation to road safety audits. These courses are being comprehensively reviewed in relation to learning outcomes and possibly expanded to include training for project managers on understanding the road safety audit system / framework and for lead auditors on capabilities of leading a road safety audit.

Enhancements and developments in training will enrich the understanding, expectations and practices in the road safety auditors and project managers and as a result heighten the quality of road safety auditors, project managers in relation to road safety audits as well as the overall road safety audit outputs.

### **Auditor performance**

To improve the credibility of road safety auditors RTA in collaboration with IPWEA (NSW) are comprehensively reviewing the accreditation scheme for road safety auditors.

The existing road safety auditor accreditation scheme for NSW operates through the IPWEA (NSW) Road Safety Auditor Register website. This website / accreditation scheme is being fully redeveloped and expanded to include:

- Re-evaluation of the criteria for the accreditation levels.
- Expanded facility to check road safety auditor's details such as accreditation level, accreditation expiry date, etc.
- Improved administration and verification timing functions.

Redevelopment of the road safety auditor accreditation scheme for NSW will enhance the understanding, practices and credibility of the road safety auditors and subsequently advance the quality of road safety auditors.

### **Information systems**

To improve the performance and monitoring of the overall road safety system / framework the RTA is developing a centralised database to manage and monitor the road safety audit system / framework within RTA.

Development of such a system will improve the practices, performances and monitoring of the road safety audit system / framework across the organisation and thus advance the achievements of undertaking road safety audits.

### **Communications**

To improve the awareness of RTA's road safety audit expectations, practices, documents and feedback processes the RTA

is developing an implementation plan and an on-going communication strategy.

Currently RTA's key main methods of communicating road safety audit related information are through an internal web page dedicated to road safety audit information and undertaking presentations at various in-house training programs. A thorough implementation plan is being developed to ensure the information in relation to revitalised policy, procedures, training, auditor accreditation and information systems are propagated to appropriate parts of the organisation and external parties. A constant forum of communication is proposed to be set up following the implementation process to ensure on-going messages and feedback.

Development of an implementation plan and on-going communication strategy for revitalising road safety audits will boost the awareness of the road safety audit system / framework. This strategy amalgamated with the policy and procedure enhancements, training advancements, auditor performance improvements and information system developments will revitalised the tool of road safety audits and subsequently inject further road safety benefits to the community through crash and injury prevention / avoidance.

### **What can local government do to revitalise the road safety audits?**

There are further actions which can be undertaken by local governments to help revitalise this road safety tool to achieve greater road safety benefits for all our communities. The actions for further revitalisation are categorised into immediate actions, progressive actions and collective actions.

#### **Immediate actions**

To support the revitalisation of this road safety tool, local governments could immediately make a decision or commitment to check one or many of road safety audit related workings as to how it currently operates within their organisation and where enhancements could be undertaken to improve practices, road safety audit outputs or outcomes.

A simple example is reviewing your organisation's expectations in relation to the skill level of road safety auditors and implementing a process to check the training, experience or accreditation of the road safety auditors prior to conducting the road safety audit. This may be as effortless as adopting another jurisdictions successful practices.

### ***Progressive actions***

To progress the revitalisation of the road safety audits even further, local governments could fully appraise and implement one or more of their organisation's policy or procedures, training, auditor performance, information management, or communications, with the aim to achieve improved understanding, practices, performance in the areas of road safety audits.

A simple example is reviewing your organisation's training requirements, expectations and opportunity sources relating to road safety audits for staff and encouraging the implementation of an ongoing training plan in the area of road safety audits. Road safety audit training provides direct benefits to immediate auditors and project managers however can also provide indirect benefits to other staff within your organisation such as planners, maintenance personnel, etc. through introducing road safety understanding into their area of work.

Revitalising a key area that contributes towards or enhances the road safety audit system / framework will improve road safety audit outputs. Jointly these successful enrichments will contribute towards more road safety benefits for the broader community. Promoting these successes to others will also progress the revitalisation of this road safety tool.

### ***Collective actions***

Advancing the revitalisation of the road safety audit system / framework closer to full effectiveness, local governments could comprehensively evaluate the complete road safety audit system / framework within their

organisation. This would include evaluating the commissioning of road safety audits, conducting road safety audits, completing actions from the road safety audits, checking for re-occurring issues from road safety audits and the organisation's practices in the development, operations and maintenance of their road networks, with the objective to enhance road safety audit awareness, understanding, guidance, performance and outputs.

Revitalising the entire road safety audit system / framework will improve the effectiveness of road safety audits and will positively deliver greater road safety benefits to the community. Local governments working together on this road safety tool will also achieve earlier road safety benefits for their communities. Strong promotion of your successes and what you learnt to other local governments and organisations also needs to occur to encourage and motivate others to enhance their inputs into achieving greater road safety benefits for our State and country.

### ***Conclusion***

An effective road safety audit system / framework has great potential for improving road safety. An evaluation of the RTA's road safety audit system and resources established that the workings of the road safety audit system / framework could be fruitfully targeted for revitalisation. The RTA developed an enhancement strategy to embrace this road safety audit system / framework. This strategy involved policy and procedure enhancements, training advancements, road safety auditor accreditation improvements, information system developments and communication / implementation plan completion. Addressing all these components together will bring out the highest effectiveness of the road safety audit system / framework.

Commitment and action from other local governments on evaluating parts or the entire road safety system / framework within their organisation will positively deliver greater road safety benefits to the community. Further promotion of successes and what was learnt relating to the road safety audit

system / framework will encourage and motivate others to enhance their inputs into achieving greater road safety benefits for our State and country.

The Roads and Traffic Authority of New South Wales understands the benefits of improving the road safety audit system / framework and has taken the initiative in alliance with other organisations to start revitalising road safety audits. Effectively revitalising the road safety audit system / framework will boost road safety benefits through crash prevention/avoidance and injury prevention/ avoidance to the New South Wales community.

## References

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4. Roads and Traffic Authority (2005) *Accident Reduction Guide Part 2: road safety audits*, Roads and Traffic Authority NSW

## Author Biography



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