

Guidelines for developing and  
implementing a  
**safety management system**  
for road controlling authorities

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## Foreword by the Chief Executive

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Making New Zealand roads safer for everyone

Land Transport New Zealand is committed to helping reduce injury and death on our roads. The government's goal is to reduce road casualties to no more than 300 deaths and 4,500 hospitalisations a year by 2010.

These Guidelines for developing and implementing a road controlling authority's safety management system are fundamental to achieving that goal.

This is the first time that the development and implementation guidelines have been published together, with appendices in a separate folder. The format aims to make the guidelines easy to use. The guidelines are a useful reference tool for all those practitioners, from traffic engineers to road builders who are involved with safety management systems.

Land Transport New Zealand and central government are committed to working in partnership with all local councils in the development, implementation and operation of safety management systems on our roads. We are indebted to the road controlling authorities for their comments, suggestions and improvements to these guidelines and for the examples provided in the appendices.

The work doesn't stop with these guidelines. Land Transport New Zealand will continue to support and work with all who are committed to making our roads safer.

Wayne Donnelly

Chief Executive

Land Transport New Zealand

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## Summary

### **Road Safety to 2010 strategy**

The *Road Safety to 2010* strategy sets out the government's longer term plan for road safety in New Zealand, including:

- € the government's goals of no more than 300 fatalities and 4,500 hospitalisations per year by 2010
- € targets for road safety, including regional and road user group targets
- € funding
- € the contributions being made by government agencies
- € how road safety will contribute to the broader transport objectives of the *New Zealand Transport Strategy*
- € the review process.

### **Land Transport NZ's contribution to safety management systems**

Land Transport New Zealand (Land Transport NZ) is contributing to the adoption of safety management systems (SMS) by road controlling authorities (RCA) to ensure that decisions about construction, maintenance, management and operation of road networks consider safety and help achieve targets and goals identified in national and local road safety strategies.

*Guidelines for developing and implementing a safety management system for road controlling authorities* is a key component of this activity. Other initiatives being undertaken in this area include:

- € conducting technical workshops with industry to promote, develop and implement SMS
- € outlining appropriate audit regimes for SMS
- € developing general criteria for appropriate expertise in SMS management and identifying training needed to reach this level of expertise
- € developing an agreed national road classification system as the basis for managing the safety of the road network
- € specifying a network safety performance evaluation process to quantify the benefits of the SMS approach to road safety
- € surveying and assessing the existing network with regard to design standards and traffic management practice
- € developing procedures for evaluating the safety performance of the road network
- € encouraging the adoption of appropriate and consistently applied standards for each category of road hierarchy so we have a 'no surprises' road environment.



## Contacts

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# Glossary

**Note:** The terms contained in this glossary are not intended to be final or exhaustive definitions for general use - but relate to the meaning of these words as they are used in the area of SMS activities.

<b>Audit</b>	An audit is a planned or programmed check of RCA SMS documentation and activity that examines compliance with the established standards or best practice requirements. An audit consists of a review, monitoring and an evaluation stage. It generally leads to a full report on compliance with best practice and provides recommendations and/or corrective actions if necessary.
<b>Best practice</b>	Best practice is the practice identified by the RCA as currently being the best practice for their road network. Best practice will be reviewed as new practices become available that the RCA can adopt where appropriate. These may be identified in regular internal or external audits.
<b>Delivery plan</b>	The delivery plan is the timeline over which the whole development and implementation process of the SMS is intended to occur. There are separate sections for the relevant portions such as development, buy-in, implementation and audit. Some of these overlap and can be carried out concurrently. The delivery plan identifies the critical path and the people who will be involved with each process. Preparing the delivery plan at the start of the development phase ensures that consideration is given to the appropriate methods of implementation of the SMS and this may influence the style and content of the SMS. The delivery plan should be updated and reviewed regularly to monitor progress.  For delivery plan details, see part 2 section 2.3.1.
<b>Evaluation</b>	Evaluation is an assessment of the RCA's road safety outcome against expected results to determine the level of attainment and whether the RCA's SMS is contributing to this.
<b>Hazard register</b>	This register contains known safety issues, which occur from time to time and are not preventable with a cost-effective solution. This register is the responsibility of the asset manager (or network consultant) and should be used by the maintenance contractor to address issues, ie sign erection before flooding or maintenance after a road crash or flood. This register should also provide input into the safety intervention plan where conditions conducive to an event occurring are met, eg a heavy rain warning, where anticipated flooding may necessitate some temporary road closures or diversions.
<b>Monitoring</b>	Monitoring is a formal process by which operational activity is overseen and checked to confirm that what is written in the SMS is appropriate and occurring. Its purpose is to increase knowledge and determine any variation or pattern in order to identify and recommend future action.

## Glossary, continued

<b>Prioritisation process</b>	This is a process by which deficiencies and projects are ranked to determine the priority given to each.
<b>RAMM</b>	Road assessment and maintenance management.
<b>Review</b>	A review is a reconsideration or revisiting of SMS documentation to assess relevance and appropriateness to a requirement or a desired best practice outcome.
<b>Road Safety Co-ordination Committee</b>	The Road Safety Co-ordination Committee is composed of the RCA champion and possibly elected members, the road safety co-ordinator, Land Transport NZ staff and the New Zealand Police. The Committee 'owns', manages, promotes and drives the road safety strategy and road safety activities of the RCA.
<b>Road safety plan (RSP)</b>	A road safety plan is activity-based and sets out specific actions to be taken, as well as responsibilities and timelines for activity.
<b>Road safety strategy (RSS)</b>	A road safety strategy is a general framework that provides guidance, rationale and direction for actions to be taken (and, at the same time, is shaped by the actions to be taken), based on a clear and broad understanding of the desired road safety objectives. The document is developed in conjunction with key road safety partners and adopted by the RCA.
<b>Safety culture</b>	This is when the RCA includes all aspects of road safety in every part of their working day. The safety culture should be second nature for all staff who should consider the effects on road safety of every action they take from design and construction through to simply driving on the roads in council vehicles.
<b>Safety deficiency database/register</b>	This is a database maintained by the asset manager or network consultant, which lists all of the known safety deficiencies on the road network. These deficiencies are then classified and prioritised. Deficiencies, which are recurring but not preventable such as snow fall or flooding, are classed as such and listed in the hazard register (see above). The safety deficiency database is dynamic and should be updated regularly.
<b>Safety intervention plan (SIP)</b>	The safety intervention plan provides the network contractor/s with a system of works based on acceptable level specifications for road assets including surface, drainage, marking and signage. When the condition of an asset falls below the acceptable level, intervention is usually required by way of repairs or renewal. There may be several levels of intervention, from non-urgent to critical, ie take action now. It is critical that the contractor ultimately takes ownership of this plan and has the necessary internal systems in place to take action once the roading asset approaches or reaches intervention level. Ultimately the contractor is expected to be innovative in developing systems and procedures for an efficient safety intervention plan using best practice.

## Glossary, continued

<b>Safety management plan (SMP)</b>	A safety management plan is a document that provides project control for the network consultant, identification of safety issues, concerns and deficiencies and prioritising them for investigation, improvement or mitigation with a recognition of the funding requirements. It should allow for the implementation and monitoring of improvements, and be reviewed jointly by the RCA, the network consultant and network contractors annually.
<b>Safety management system (SMS)</b>	A safety management system, in simple terms is: 'an arrangement of things/procedures which through skilful application seeks to provide a state of being safe and free from injury, danger and risk when working on or using the public road network'.
<b>Safety manager</b>	This is an employee of the RCA or network consultant who is responsible for directly administrating the SMS with the contractor. This person should provide direct feedback on a regular basis to the council's SMS champion.
<b>SMS champion</b>	<p>This is the person employed within the RCA who is responsible for promoting and driving the SMS within the council. Contractors should also have nominated SMS champions within their organisation who will drive and promote the SMS culture to other staff within the organisation.</p> <p><b>Note:</b> It is critical that the SMS champion has sufficient delegated authority to drive the SMS within the organisation.</p>
<b>Safety team</b>	The safety team should not be confused with the Road Safety Co-ordination Committee. The safety team delivers and reviews the SMS. The safety team is composed of the road SMS champion, RCA asset manager, RCA network manager (could be a network management consultant) RCA maintenance manager (could be a network management contractor) and may include a Land Transport NZ representative. The safety team will meet regularly (ideally monthly) to discuss contract issues, SMS management including changes to SMS practices and key performance indicator reporting.