

South Island Summary by Region

The South Island has been divided into two regions. The Collective Risk and Personal Risk for each region is shown on the tables below. The tables detail how many kilometres of the state highway network fall within the five risk categories, and their respective percentages.

Collective Risk

	High	Medium-high	Medium	Low-medium	Low
Tasman, Nelson, Marlborough, West Coast & Canterbury	<1% 10 km	3% 95 km	18% 521 km	24% 686 km	55% 1594 km
Otago & Southland	1% 20 km	12% 234 km	16% 310 km	44% 834 km	26% 499 km
NEW ZEALAND'S COLLECTIVE RISK	8% 812 km	14% 1560 km	22% 2344 km	27% 2967 km	29% 3174 km

Personal Risk

	High	Medium-high	Medium	Low-medium	Low
Tasman, Nelson, Marlborough, West Coast & Canterbury	14% 413 km	21% 600 km	26% 767 km	20% 587 km	19% 540 km
Otago & Southland	51% 971 km	25% 478 km	17% 322 km	3% 64 km	3% 61 km
NEW ZEALAND'S PERSONAL RISK	21% 2258 km	25% 2703 km	28% 3030 km	15% 1637 km	11% 1228 km

* Percentages may not add to 100% due to rounding

Printed January 2008

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WHAT IS KIWIRAP?

The New Zealand Road Assessment Programme, KiwiRAP, falls under the umbrella of the International Road Assessment Programme, iRAP. Similar programmes have been implemented in Europe (EuroRAP), Australia (AusRAP) and the United States of America (usRAP) and developments are underway for a programme in Africa.

KiwiRAP has been initiated in New Zealand as a partnership between the government transport agencies (Ministry of Transport, Transit New Zealand, Land Transport New Zealand, Accident Compensation Corporation, New Zealand Police) and The New Zealand Automobile Association.

The objectives of KiwiRAP are:
 > To reduce deaths and injuries on New Zealand roads by systematically

assessing risk and identifying safety shortcomings that can be addressed with practical road improvement measures.

- > To have risk assessment as a key factor in strategic decisions on road improvements, crash protection and standards of road management.
- > To provide meaningful information on where the greatest levels of risk are faced and in turn to influence behaviour.

HOW DOES A ROAD ASSESSMENT PROGRAMME WORK?

Road Assessment Programmes internationally consist of three 'protocols':

- > **RISK MAPPING**
Uses historical traffic and crash data to produce colour-coded maps which illustrate the relative level of risk on sections of the road network.

- > **PERFORMANCE TRACKING**
Involves a comparison of crash rates over time to establish whether fewer – or more – people are being killed or injured and determine if countermeasures have been effective.

- > **STAR RATING**
Road inspections assess the engineering features of a road (such as lane and shoulder width or presence of safety barriers). Between 1 and 5 stars are awarded to road links depending on the level of safety which is 'built-in' to the road.

RISK MAPS

Risk Mapping currently focuses on the state highway network. In the future this may extend to tourist routes or key regional non state highway routes.

The state highway network is broken up into road sections (known as 'links'), for the purpose of comparing the level of risk of crashes between different parts of the network. The Risk Maps focus on state highway links that are typically outside the urban area – that is, state highway links that have speed limits of 80km/h or more.

For the purposes of displaying the safety

risk of the state highway network, KiwiRAP looks at two different measures of risk - Collective Risk (or Crash Density) and Personal Risk. The focus of both is on crashes where people have been killed or seriously injured. The crash statistics used for the calculations are for the five-year period 2002–2006.

Collective Risk (or Crash Density)
Collective Risk is a measure of the total number of fatal and serious injury crashes per kilometre over a section of road. Collective Risk can also be described as the Crash Density. Because Collective

Risk is measured in terms of the number of crashes per kilometre of state highway, links with higher traffic volumes tend to have a higher Collective Risk.

Personal Risk
Personal Risk is a measure of the danger to each individual using the state highway being assessed. Unlike Collective Risk, Personal Risk takes into account the traffic volumes on each section of state highway.

This brochure contains the South Island Risk Map data.

RISK RATING	COLLECTIVE RISK Average annual fatal and serious injury crashes per km	PERSONAL RISK Average annual fatal and serious injury crashes per 100 million vehicle-km	COLOUR
Low	≤0.039	<4	Green
Low-medium	0.04 ≤ 0.069	4 ≤ 4.9	Yellow
Medium	0.07 ≤ 0.10	5 ≤ 6.9	Orange
Medium-high	0.11 ≤ 0.189	7 ≤ 8.9	Red
High	0.19+	9+	Black

KiwiRAP is a road safety partnership between the Automobile Association and New Zealand's main transport agencies: Transit New Zealand, Ministry of Transport, ACC, Land Transport New Zealand, and New Zealand Police.

HOW SAFE ARE OUR ROADS? Rating New Zealand's State Highways for Risk

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COLLECTIVE RISK MAP

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PERSONAL RISK MAP