

North Island Summary by Region

The North Island has been divided into four 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
Northland & Auckland	29% 346 km	11% 136 km	21% 254 km	18% 217 km	20% 233 km
Waikato & Bay of Plenty	11% 241 km	24% 547 km	25% 576 km	27% 620 km	13% 302 km
Gisborne & Hawke's Bay	5% 46 km	8% 76 km	27% 256 km	30% 286 km	31% 300 km
Taranaki, Manawatu-Wanganui & Wellington	9% 149 km	29% 472 km	26% 427 km	20% 324 km	15% 246 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
Northland & Auckland	24% 281 km	21% 248 km	28% 337 km	6% 71 km	21% 249 km
Waikato & Bay of Plenty	9% 196 km	24% 558 km	35% 793 km	23% 530 km	9% 209 km
Gisborne & Hawke's Bay	18% 175 km	53% 513 km	28% 274 km	0% 0 km	<1% 2 km
Taranaki, Manawatu-Wanganui & Wellington	14% 222 km	19% 306 km	33% 537 km	24% 385 km	10% 167 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

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WHAT IS KIWI RAP?

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 North 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