

Waikato and Bay of Plenty Region Results Table

Link	Length (km)	Serious Injury Crashes 2002 to 2006	Fatal Crashes 2002 to 2006	Collective Risk Annual average fatal and serious injury crashes per km	Collective Risk Band	Personal Risk Annual average fatal and serious injury crashes per 100 million vehicle-km	Personal Risk Band
SH 1 from Cambridge to Piarere (SH 29)	20.9	14	4	0.19	High	3.8	Low
SH 1 from Hamilton to Cambridge	19.6	14	3	0.19	High	3.3	Low
SH 1 from Huntly to Hamilton	34.8	18	9	0.22	High	3.1	Low
SH 1 from Meremere to Rangiriri	17.6	13	9	0.25	High	4.5	Low-medium
SH 1 from Piarere to Putaruru	18.9	8	4	0.14	Medium-high	4.7	Low-medium
SH 1 from Pokeno to Meremere	16.7	5	2	0.08	Medium	2.1	Low
SH 1 from Putaruru to Tokoroa	25.8	7	6	0.13	Medium-high	3.9	Low
SH 1 from Rangiriri to Huntly	25.2	4	4	0.07	Medium	1.9	Low
SH 1 from Takanini to Pokeno*	48.3	17	6	0.1	Medium	1.1	Low
SH 1 from Taupiri to Cambridge	45.2	9	3	0.06	Low-medium	4.3	Low-medium
SH 1 from Taupo to Turangi	44.5	9	13	0.11	Medium-high	4.2	Low-medium
SH 1 from Tokoroa to Taupo	64.5	30	11	0.13	Medium-high	5.2	Medium
SH 1 from Turangi to Waiouru*	61.6	12	5	0.06	Low-medium	4.3	Low-medium
SH 2 from Katikati to Tauranga	30.6	19	9	0.2	High	4.3	Low-medium
SH 2 from Mangatarata (SH 25) to Paeroa	38.1	12	6	0.11	Medium-high	5.5	Medium
SH 2 from Matata to Opotiki	78.4	14	7	0.06	Low-medium	6.6	Medium
SH 2 from Opotiki to Gisborne via Waioeka Gorge*	138	26	12	0.06	Low-medium	9.9	High
SH 2 from Paeroa to Katikati	45.1	40	8	0.24	High	8.9	Medium-high
SH 2 from Pokeno (SH 1) to Mangatarata (SH 25)	35.6	37	18	0.31	High	7.4	Medium-high
SH 2 from Mount Maunganui (SH 29) to Paengaroa (SH 33)	24.4	22	12	0.38	High	5.9	Medium
SH 2 from SH 33 to Matata	33.8	9	5	0.08	Medium	4	Low-medium
SH 3 from Hamilton to Te Awamutu	30.2	15	5	0.16	Medium-high	4.6	Low-medium
SH 3 from Te Awamutu to Te Kuiti	60.3	24	8	0.13	Medium-high	6	Medium
SH 3 from Te Kuiti to New Plymouth*	145.8	48	13	0.09	Medium	7.1	Medium-high
SH 4 from 8 Mile Junction (Sth of Te Kuiti) to Taumarunui*	69.6	14	5	0.05	Low-medium	7.7	Medium-high
SH 5 from Rotorua to Wairakei	69.8	21	9	0.09	Medium	4.2	Low-medium
SH 5 from Taupo to Tarawera*	60.9	15	7	0.07	Medium	5.4	Medium
SH 5 from Tirau to Rotorua	46.5	23	12	0.15	Medium-high	7.6	Medium-high
SH 23 from Hamilton to Raglan	40.1	19	4	0.12	Medium-high	6.3	Medium
SH 24 and SH 21 from Matamata to Putaruru	33.8	8	1	0.06	Low-medium	5.3	Medium
SH 25 from Mangatarata (SH 2) to Thames	29.9	13	0	0.11	Medium-high	5.5	Medium
SH 25 from Thames to Whitianga via Coromandel	95.5	9	5	0.03	Low	6	Medium
SH 25 from Whitianga to Waihi	105.4	17	3	0.04	Low-medium	5.3	Medium
SH 25A from Kopu to Hikuai	28.2	6	4	0.07	Medium	5.7	Medium
SH 26 from Hamilton to Morrinsville	27.5	9	0	0.07	Medium	3.6	Low
SH 26 from Morrinsville to Kopu	68.1	11	4	0.05	Low-medium	4.1	Low-medium
SH 27 from Mangatarata (SH 2) to Tirau	92.5	32	14	0.1	Medium	5.3	Medium
SH 29 and SH2 within Tauranga	12.5	13	4	0.27	High	4.1	Low-medium
SH 29 from Kaimai Ranges to Tauranga	30.8	18	9	0.18	Medium-high	5.2	Medium
SH 29 from Piarere to the Kaimai Ranges	23.7	7	2	0.08	Medium	4.3	Low-medium
SH 30 from Rotorua to Atiamuri	31.8	9	0	0.06	Low-medium	6.7	Medium
SH 30 from Rotorua to Whakatane	70.2	35	8	0.14	Medium-high	7.4	Medium-high
SH 30 from Te Kuiti to Atiamuri	104.9	18	3	0.04	Low-medium	14.1	High
SH 31 from Kawhia to SH 39	42.5	5	1	0.03	Low	15.5	High
SH 32 from Tokoroa to Kuratau	94.7	7	0	0.02	Low	4.2	Low-medium
SH 33 from Rotorua to Paengaroa	40	20	9	0.15	Medium-high	7.5	Medium-high
SH 34 from Edgecumbe (SH 2) to Kawerau (SH 30)	25.2	6	5	0.09	Medium	8.9	Medium-high
SH 36 Tauranga to Ngongotaha	47.1	17	1	0.08	Medium	7.2	Medium-high
SH 37 to Waitomo Caves	7.3	5	1	0.16	Medium-high	32.1	High
SH 38 from Rainbow Mountain to Murupara	36.4	8	2	0.05	Low-medium	8.4	Medium-high
SH 39 and SH 31 from Ngaruawahia to Otorohanga	70.5	24	6	0.09	Medium	8	Medium-high
SH 41 from Taumarunui to Turangi*	58.4	8	0	0.03	Low	7.4	Medium-high
SH 46 SH 47 SH 48 from National Park to Turangi*	72.4	5	0	0.01	Low	2.5	Low

* These links cross map boundaries, so will appear in more than one regional list

WHAT IS KIWRAP?

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.

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

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

> 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.

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.

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.

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.

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

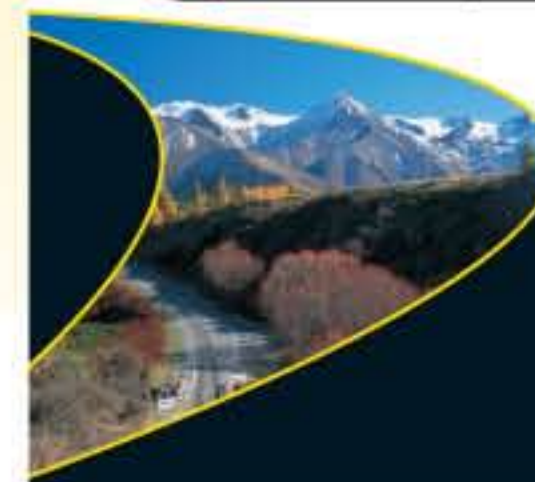
Personal Risk
 Personal Risk is a measure of the danger to each individual using the state highway being assessed. Unlike Collective Risk, Personal Risk takes into account the traffic volumes on each section of state highway.

This brochure contains the Waikato and Bay of Plenty regional Risk Map data.

For the purposes of displaying the safety

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



COLLECTIVE RISK MAP

Collective Risk	High	Medium-high	Medium	Low-medium	Low
Waikato and Bay of Plenty	11%	24%	25%	27%	13%
	241 km	547 km	576 km	620 km	302 km

Percentages may not add to 100% due to rounding



PERSONAL RISK MAP

Personal Risk	High	Medium-high	Medium	Low-medium	Low
Waikato and Bay of Plenty	9%	24%	35%	23%	9%
	196 km	558 km	793 km	530 km	209 km

Percentages may not add to 100% due to rounding