

# *briefing notes road safety issues*

## *Rangitikei District*

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2003–2007 period.

This report is the ninth road safety report for Rangitikei district. Most of the information, unless otherwise stated in this report, applies to both local roads and State highways.

The intent of the report is to highlight the key road safety issues and assist in identifying possible ways to reduce the number of road deaths and injuries in the district. More detailed information may be obtained from either Rangitikei District Council (local roads) or Transit NZ (State highways). Please refer to the last page for contact details.

The issues chosen for this report are drawn from either the most common crash types or those with high social cost of crashes (relating mainly to high numbers of fatal and serious crashes) or those that appear over-represented when the Rangitikei district is compared to similar local authorities.

We have also included a brief overview of crashes in the district for 2007.

Major road safety issues		2007 road trauma	
Rangitikei district		Casualties	Rangitikei district
Loss of control		Deaths	7
Speed		Serious casualties	22
Fatigue		Minor casualties	63
Nationally		Crashes	Rangitikei district
Speed		Fatal crashes	5
Alcohol		Serious injury crashes	12
Failure to give way		Minor injury crashes	43
Restraints		Non injury crashes	117

## Overview 2007

In 2007 in Rangitikei district there were 60 injury crashes and 117 non-injury crashes reported by the New Zealand Police. Two third of all injury crashes in the district were on State highways.

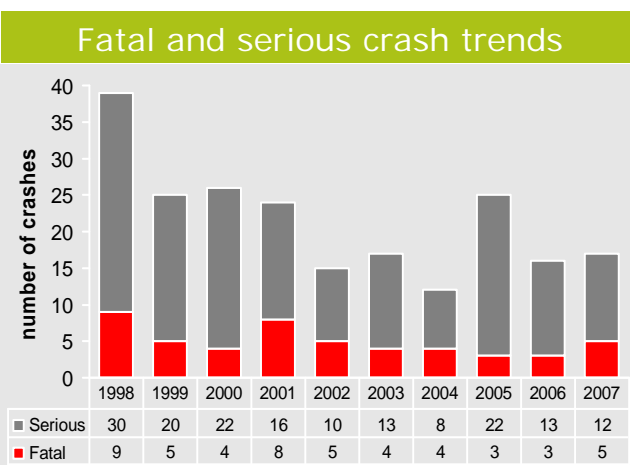
Crashes by injury type in 2007								
	State highways				Local roads			
	F	S	M	NI	F	S	M	NI
Rural <sup>1</sup>	3	8	26	49	1	4	13	32
Urban	1	0	2	9	0	0	2	27

Note: 1/ Rural - area with a speed limit of 80km/h or more  
 F - Fatal crashes                      S - Serious injury crashes  
 M - Minor injury crashes            NI - Non- Injury crashes

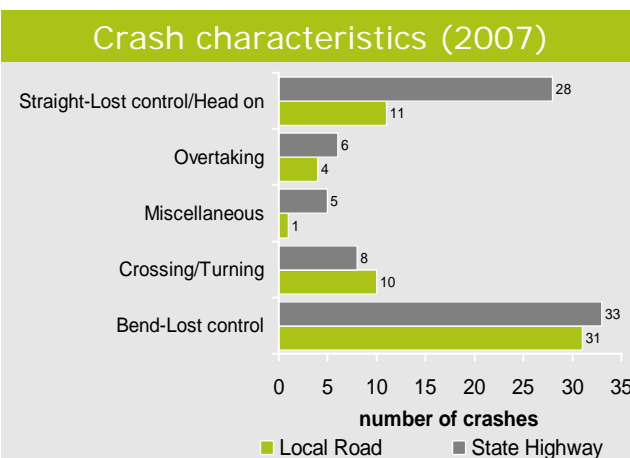
The table below shows the number of injuries resulting from these crashes in the district.

Casualties by injury type in 2007				
	Fatalities	Serious injuries	Minor injuries	Total
<b>Total</b>	<b>7</b>	<b>21</b>	<b>63</b>	<b>91</b>

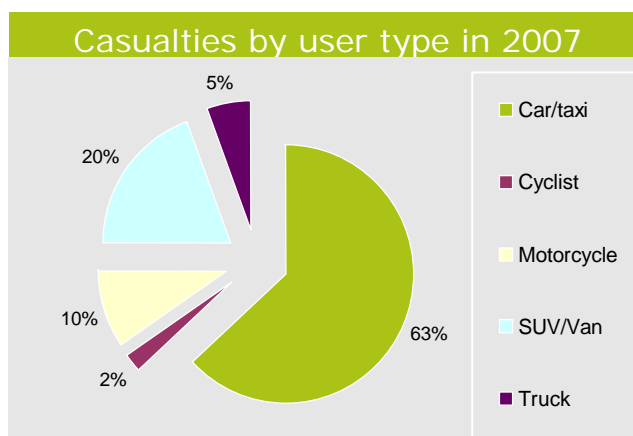
The total number of fatal and serious crashes showed a decreasing trend until 2004. However now appears to be rising and the number of fatal crashes in 2007 was the highest in the last five years.



In 2007 *bend-lost control* was the main type of crash in the district, followed by *straight-lost control/head-on* crash type.



The highest number of casualties in 2007 were drivers and passengers of cars followed by those of SUV/Vans. Significant increase in motorcyclist casualties in comparison to previous years was observed in 2007.



Further information about all crashes in 2007 on:

### Local roads

- Worst day of week: *Sunday (20 percent)*
- Wet road crashes: *25 percent*
- Night time crashes: *37 percent*
- Driver with alcohol over limit (injury crashes): *5 percent*
- Too fast for conditions (injury crashes): *30 percent*
- Crashes at intersection: *20 percent*
- Road factors: *13 percent*
- At fault male (injury crashes) driver: *72 percent*
- Full NZ licence held by at fault (injury crashes) drivers: *72 percent*

### State highways

- Worst days of week: *Wednesday and Friday (16 percent each)*
- Wet road crashes: *22 percent*
- Night time crashes: *41 percent*
- Driver with alcohol over limit (injury crashes): *5 percent*
- Too fast for conditions (injury crashes): *13 percent*
- Crashes at intersection: *21 percent*
- Road factors: *13 percent*
- At fault male (injury crashes) driver: *71 percent*
- Full NZ licence held by at fault or part fault (injury crashes) drivers: *68 percent*

**Social cost of crashes**

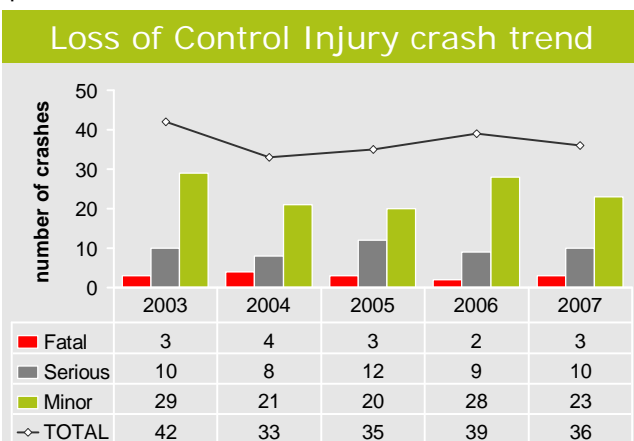
Local roads	\$ 10.13M
State highways	\$ 26.44M
<b>Total</b>	<b>\$ 36.57M</b>

NOTE: The estimated social cost includes loss of life or life quality, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.

## Loss of control

During the five year period 2003 to 2007, More than 60 percent of all injury crashes in the Rangitikei district occurred due to loss of control. These crashes resulted in 23 deaths, 74 serious injuries and 199 minor injuries. There were a further 336 non-injury crashes reported.

The number of injury crashes due to loss of control has been quite steady over the last five year period.



Most of the crashes took place in rural areas. Sixty five percent of the loss of control crashes occurred at bends.

Loss of control crashes	Local urban	Local rural	SH urban	SH rural
At bends	7	18	5	70
On Straight	9	28	2	61

Most crashes at bends involved a driver losing control of their vehicle and running off the road or, on occasions, colliding with another vehicle.

After drivers lose control, their vehicles often crash into roadside hazards such as ditches, banks, poles or trees. Hitting these objects can result in a relatively minor event turning into something far more serious.

The three most common roadside hazards struck during crashes in the district were *fences* (30 percent), *ditches* (24 percent) and *cliff banks* (13 percent) out of the total number of 589 objects struck.

Fatigue was the main cause of the loss of control crashes *on straight* on State highways, where as both *fatigue* and *failure to keep left* were the causes behind the majority of these crashes on local roads.

In loss of control injury crashes on local roads more than 40 percent of at fault drivers were either learner or restricted licence holders, never licensed or disqualified. One third of these crashes on local roads were related to *speed* and one quarter related to *alcohol*.

## Main characteristics of crashes with loss of control

Crash characteristic	Percentage of crashes
Single vehicle	84%
Alcohol (injury crashes)	14%
Too fast for the conditions (injury crashes)	21%
Road factors	16%
Poor handling (injury crashes)	41%
Rural road	89%
Wet road	31%
Night time	46%

Further information about loss of control crashes in the district for the period between 2003 and 2007 on:

### Local roads

- 3 deaths, 19 serious injuries and 64 minor injuries
- Worst days of week: *Saturday and Sunday* (33 crashes each)
- Wet road crashes: 29 percent
- Night time crashes: 46 percent
- Alcohol over limit (injury crashes): 26 percent
- Most common injury crash factors: *poor handling* (51 percent) followed by *too fast* (33 percent)
- At fault male driver (injury crashes): 60 percent
- Full NZ licence at fault drivers (injury crashes): 50 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 and 30 to 39 years old

### State highways

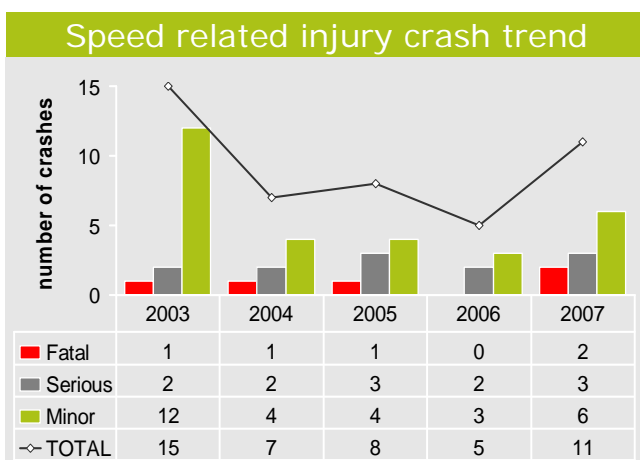
- 20 deaths, 55 serious injuries and 135 minor injuries
- Worst day of week: *Thursday* (60 percent)
- Wet road crashes: 31 percent
- Night time crashes: 46 percent
- Alcohol over limit (injury crashes): 7 percent
- Most common injury crash factors: *Fatigue* (39 percent) followed by *poor handling* (35 percent)
- At fault male driver (injury crashes): 77 percent
- Full NZ licence at fault drivers (injury crashes): 61 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 and 40 to 49 years old

## Speed

Nationally, speed is one of the major contributing factors to road crashes. In 2007, excessive speed contributed to 33 percent of fatal crashes and 18 percent (2,115 numbers) of injury crashes nationally.

In the Rangitikei district, excessive speed was a factor in 18 percent of all injury crashes in 2007. There were speed related 46 injury crashes and 84 non-injury crashes reported in the last five years.

The five year trend shows that speed related injury crashes are increasing since 2004. There were 5 fatal and injury crashes in 2007, highest in any one year in the last five years.



In the last five year period, 85 percent of the speed related crashes in the district occurred in rural areas. Fifty seven percent of speed related crashes occurred on State highways.

Speed related crashes					
	2003	2004	2005	2006	2007
Urban	2	8	6	1	2
Rural	33	19	20	15	24
<b>Total</b>	<b>35</b>	<b>27</b>	<b>26</b>	<b>16</b>	<b>26</b>

Males represented 71 percent of at fault drivers in speed related crashes. More than half of the at-fault drivers were less than 25 years old.

Age and sex of at fault drivers			
Drivers at fault in speed related injury crashes (2003- 2007)	Male	Female	Total
15 - 19 years	6	6	12
20 - 24	12	1	13
25 - 29	2	2	4
30 - 39	6	1	7
40 - 49	5	2	7
50 - 59	1	1	2
60 - 69	0	0	0
70+	0	0	0
<b>Total</b>	<b>32</b>	<b>13</b>	<b>45</b>

Further information about speed related crashes in the district between 2003 and 2007 on:

### Local roads

- 2 deaths, 8 serious injuries and 23 minor injuries
- Worst day of week: *Saturday (18 crashes)*
- Wet road crashes: *27 percent*
- Night time crashes: *55 percent*
- Driver with alcohol over limit (injury crashes): *30 percent*
- Most common injury crash factor: *bend-loss of control (80 percent)*
- At fault male driver (injury crashes): *59 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 24 years old*

### State highways

- 3 deaths, 11 serious injuries and 24 minor injuries
- Worst day of week: *Friday (18 crashes)*
- Wet road crashes: *38 percent*
- Night time crashes: *69 percent*
- Driver with alcohol over limit: *9 percent*
- Most common injury crash factor: *bend-loss of control (70 percent)*
- At fault male driver (injury crashes): *83 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 24 and 40 to 49 years old*

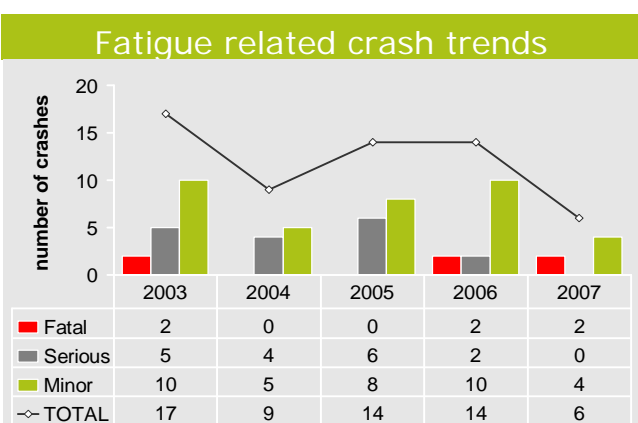
## Fatigue

Fatigue remains a difficult cause to identify and it is accepted that the reported number of crashes will be less than the actual crash numbers where fatigue is a factor.

Even though it is considered socially acceptable to drive while fatigued as opposed to drink driving, research indicates that the effects on cognitive skills are similar. It is however extremely difficult for police to prevent people from driving while fatigued.

Fatigue was identified as a factor in 22 percent of injury crashes in the Rangitikei District between 2003 and 2007. In the five year period there were 146 crashes where fatigue was a factor, 60 of which were injury crashes. These crashes resulted in 8 deaths, 30 serious injuries and 70 minor injuries.

In 2007 the total number of fatigue related injury crashes has been the lowest for the last five years. In 2007 however there were 2 fatal crashes recorded and no serious injury crashes.



Eighty-three percent of fatigue related injury crashes were on State highways. Of the 49 injury crashes on State highways, 37 took place on SH1N and 12 were on SH3. The following table shows specifically identified causes of *fatigue* and their contribution to injury crashes from 2003 to 2007.

Fatigue causes	Percentage of Injury crashes	
	Rangitikei District	New Zealand
General (drowsy, tired, fell asleep)	19%	4.9 %
Long trip	1.1%	0.2 %
Lack of sleep	0.7%	0.7 %
Worked long hours before driving	0.7%	0.3 %

Almost half (49 percent) of the fatigue related crashes occurred on weekends, between 6pm Friday and 6am Monday. Similarly, half of the fatigue related crashes occurred during the hours of darkness/twilight.

Thirty-one percent of drivers at fault in fatigue related injury crashes were between 15 and 24 years of age. Three quarters of at *fault* drivers were male.

Of all at fault drivers, 29 percent of the drivers held either a *restricted* or a *learner* licence.

Further information about fatigue related crashes in the district for the period between 2003 and 2007 on:

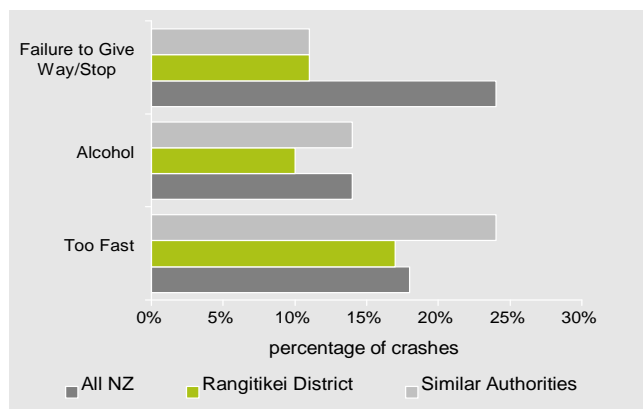
### Local roads

- 4 serious injuries and 10 minor injuries
- Worst days of week: *Wednesday* and *Sunday* (7 crashes each)
- Wet road crashes: 16 percent
- Night time crashes: 68 percent
- Alcohol over limit (injury crashes): 45 percent
- Most common injury crash factors: *poor handling* (36 percent) followed by *too fast* (27 percent)
- Road factors: 4 percent
- At fault male driver (injury crashes): 73 percent
- 64 percent of drivers at fault (injury crashes) did not hold Full NZ licence
- Most common at fault drivers' age group (injury crashes): 15 to 24 years old

### State highways

- 8 deaths, 26 serious injuries and 60 minor injuries
- Worst day of week: *Sunday* (25 percent)
- Wet road crashes: 22 percent
- Night time crashes: 46 percent
- Alcohol over limit (injury crashes): 8 percent
- Most common injury crash factors: *poor handling* (24 percent) followed by *failed to keep left* (20 percent)
- Road factors: 3 percent
- At fault male driver (injury crashes): 78 percent
- 36 percent of drivers at fault (injury crashes) did not hold Full NZ licence
- Most common at fault drivers' age group (injury crashes): 25 to 49 years old

## National issues



### Speed

In Rangitikei district, *too fast* was recorded in 17 percent of injury crashes in the last five years, resulting in 5 deaths and 66 injuries. *Speed* as a factor in crashes is not reducing in the district.

Seventy-five percent of *speed* related crashes involved *loss of control at bends*. *Alcohol*, *poor handling* and *poor observation* were the driver factors most often associated with *speed* related crashes. Male drivers aged under 25 years old were most involved in these crashes.

### Alcohol

In Rangitikei district, *alcohol* was involved in 10 percent of injury crashes in the last five years, resulting in 2 deaths and 38 other injuries. The number of injury crashes involving *alcohol* is not reducing.

Seventy percent of *alcohol* related crashes took place in rural areas. Eighty-four percent of them were *Loss of control/head on* crashes. Travelling *too fast*, *poor handling* and *fatigue* were the factors often associated with *alcohol* related crashes.

### Failure to give way

In Rangitikei district, *Failure to give way or stop* was a factor in 11 percent of all reported injury crashes for the last five years, resulting in 3 deaths and 76 other injuries. Most (86 percent) of these were related to *crossing/turning manoeuvres* and often associated with *failure to look for other parties*. Fifty-three percent of at fault drivers in these crashes were male.

### Restraints

The Ministry of Transport conducts surveys of restraint use. 2007 survey results show restraint rate in the Rangitikei district for front seat and rear seat are 96 and 86 percent respectively (while corresponding national rates are 95 and 87 percent).

The results are obtainable from the Ministry of Transport website.

<http://www.transport.govt.nz/belts-index/>

## Contacts

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