

# *briefing notes road safety issues*

## *Wairoa District*

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2002–2006 period.

The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries in the Wairoa District.

This report is the eighth road safety report for the Wairoa District. Most of the data in this report applies to both local roads and state highways. Where relevant the details of the crashes on the local roads and state highways are provided and discussed.

In each new report last years' year's data is added to a five year block and the oldest dropped, so it is unlikely that the core issues for any local body would change radically from report to report.

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

We have included a brief overview of crashes in the district for 2006.

Major road safety issues		2006 road trauma	
<b>Wairoa District</b>		<b>Casualties</b>	
Loss of control on rural roads		Deaths	4
Excessive speed		Serious casualties	4
Alcohol		Minor casualties	40
<b>Nationally</b>		<b>Crashes</b>	
Speed		Fatal crashes	2
Alcohol		Serious injury crashes	4
Failure to give way		Minor injury crashes	23
Restraints		Non injury crashes	80

## Overview of crashes in 2006

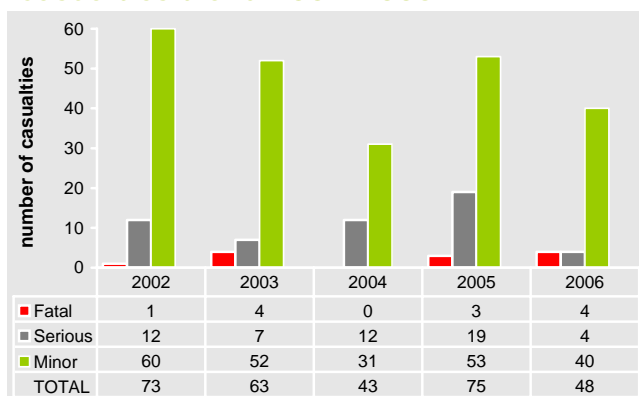
In 2006 on local roads in Wairoa District there were 10 injury crashes and 36 non-injury crashes, in addition there were 19 injury crashes and 44 non-injury crashes on state highways, as reported by the New Zealand Police.

The table below shows the number of injuries resulting from the 2006 crashes by rural or urban areas for both local roads and state highways (rural is defined as an area with a speed limit of 80km/h or more).

	Casualties in 2006			
	Fatalities	Serious injuries	Minor injuries	Total
Rural	4	4	29	37
Urban	0	0	11	11
Total	4	4	40	48

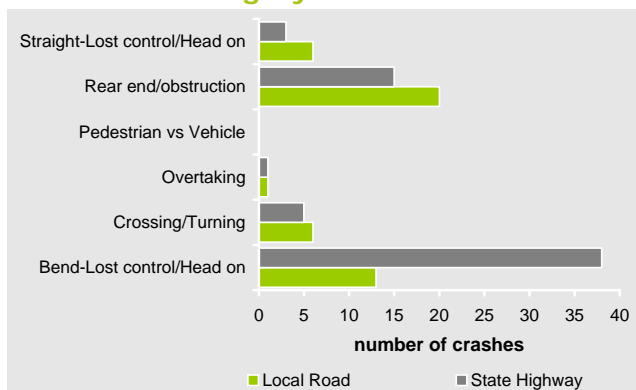
Although total number of casualties in 2006 is the second lowest in the last 5 years, the number of fatalities in 2006 is among the highest in the 5 year period.

### Casualties trend 2002-2006



The following graph shows the distribution of the injury and non-injury crashes on local roads and state highways in year 2006 by movement category.

### Movement category distribution 2006



Further information about 2006 injury and non-injury crashes on:

#### Local roads

- Worst months March and December (13 percent each), best month February (2 percent)
- Worst day Friday (34 percent), best day Monday (10 percent)
- Wet road 17 percent
- Night time 43 percent
- Mid-block 74 percent
- Social cost of crashes \$2.1m
- At fault male driver (injury crashes) 55 percent
- Full NZ licence (injury crashes) 55 percent of at fault drivers

#### State highways

- Worst month December (17 percent), best month July (2 percent)
- Worst days Saturday, Sunday and Monday (19 percent each)
- Wet road 35 percent
- Night time 48 percent
- Mid-block 89 percent
- Social cost of crashes \$11.7m
- At fault male driver (injury crashes) 83 percent
- Full NZ licence (injury crashes) 37 percent of at fault drivers

It has been observed nationally that there are a growing group of drivers who have not been exiting the graduated licence system and who are choosing to stay on restricted licences. This is making it increasingly difficult to distinguish drivers who are truly inexperienced from those that should have moved to a full licence. As a consequence it is more difficult to target educational material.

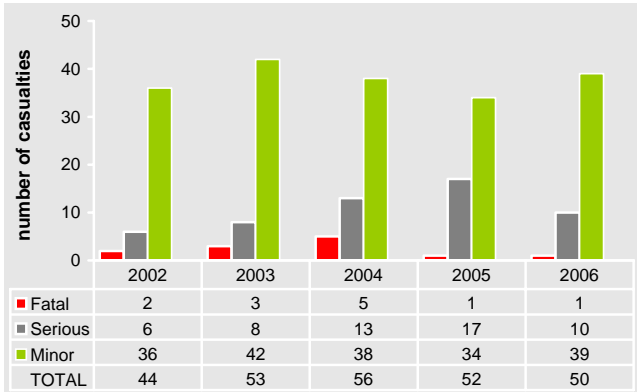
This is evident in Wairoa District with 48 percent of at fault drivers in injury crashes in year 2006 being never licensed or holder of learner or restricted

License Status	Injury crashes percentage of at fault drivers	
	Wairoa district	New Zealand
Full	44.4	58.4
Learner	22.2	9.5
Restricted	22.2	17.6
Never licensed	3.7	2.2
Disqualified	0	1.7
Overseas	7.4	4.2
Expired	0	0.5
Other/unknown	0	5.6

## Loss of control on rural roads

Between 2002 and 2006, there were 8 fatal, 37 serious injury, 80 minor injury and 628 non-injury crashes recorded in Wairoa District that occurred due to Loss of control on rural roads. These crashes resulted in 12 fatalities, 40 serious injuries and 154 minor injuries.

### Casualties trend (2002-2006)



Eighty-seven percent of loss of control crashes on rural roads occurred at bends.

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

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

The most common roadside hazards struck in loss of control crashes in Wairoa District were ditches (81), followed by fences (53), over banks (41), cliff bank (39) and tree (15) from a total of 270 objects struck.

The following table lists the main characteristics of these loss of control crashes.

Crash characteristic	
Single vehicle	79 percent
Roadside object struck (ditches - most common)	270 Total
Alcohol (injury crashes only)	20 percent
Excessive speed for the conditions (injury crashes only)	33 percent
Road factors	24 percent
Poor handling (injury crashes only)	41 percent
Wet road	42 percent
Night time	42 percent

The following table lists the licence status of at fault drivers of loss of control crashes at bends:

License Status	Injury crashes percentage of at fault drivers	
	Wairoa District	New Zealand
Full	57.0	55.4
Learner	9.4	8.7
Restricted	11.7	16.8
Never licensed	4.7	2.8
Disqualified	3.9	2.5
Overseas	7.8	6.7
Expired	0	0.9
Other/unknown	5.4	6.1

Further facts about loss of control on rural roads injury and non-injury crashes in 2002-2006 period are:

### Local roads

- 12 serious injuries and 44 minor injuries
- 71 percent of at fault drivers are male
- Most common crash factor *poor handling*
- Most common at fault age range 15-24 years old
- 40 percent alcohol over limit in injury crashes
- Worst month July (16 percent), best months February and November (3 percent each)
- Worst day of week Wednesday (20 percent), best day Friday (11 percent)

### State highways

- 12 deaths, 28 serious injuries and 110 minor injuries
- 74 percent of at fault drivers are male
- Most common crash factor *poor handling*
- Most common at fault age range 30-39 years old
- 11 percent over alcohol limit in injury crashes
- Worst month December (12 percent), best month September (4 percent)
- Worst day of week Sunday (17 percent), best day Friday (10 percent)

## Recommended actions

### Engineering

- Continue to upgrade and maintain curve warning signs, markings and delineation on local rural roads, to the appropriate standards
- Carry out safety audits and rural crash reduction studies on state highways to investigate and implement remedial treatment at black spots and sections of highway
- Maintain roadsides clear of hazards and provide side protection where appropriate
- Widen road carriageway and seal shoulders to provide additional vehicle wander and recovery space where feasible and cost effective
- Maintain pavement surface to provide good standards for skid resistance
- Improve road shape and geometry

### Education

- Raise drivers awareness of safe driving practices and the need to drive to road conditions
- Focusing on raising awareness of concerns about inappropriate speed
- Raise property owners' awareness of their responsibility and liability if their stock escapes onto the road reserve, causing trauma to motorists

### Enforcement

- Continue enforcement focusing on inappropriate speed in rural areas
- Target enforcement to times and locations of greatest risk
- Co-ordinate enforcement campaigns targeting road-user behaviour
- Continue with stock and animal control programmes in the district

## Speed

Nationally, speed is one of the major contributing factors to road crashes. For the 12 months to the end of December 2006, excessive speed contributed to around 31 percent of fatal crashes and 16 percent of injury crashes.

During 2006, there were 1,839 injury crashes where the driver was travelling too fast for conditions.

Reducing speeds to appropriate levels is an important road safety goal. Excessive speed increases the likelihood of a crash occurring by reducing the time available for drivers to respond to hazardous situations and it also leads to more serious injuries. Research has shown that a one km/h reduction in mean speeds can produce up to a three percent reduction in injury crashes.

In the Wairoa District, excessive speed was a factor in 34 percent of injury crashes in 2006. There were 84 speed-related injury crashes reported in the last five years. Speed related casualties based on urban and rural roads are given in the table below.

Speed related injuries	2002	2003	2004	2005	2006
Urban	6	0	0	2	1
Rural	6	11	13	26	19
Total	12	11	13	28	20

Males are also highly represented as at fault drivers in speed related injury crashes, accounting for 70 percent of at fault drivers.

Drivers at fault in speed related injury crashes (2002- 2006) *	Male	Female	Total
15- 19 years	9	3	12
20 - 24	6	1	7
25 - 29	5	0	5
30 - 39	6	4	10
40 - 49	4	1	5
50 - 59	6	1	7
60 - 69	0	0	0
70+	1	0	1
Other			
Total	37	10	47

\* (note ranges are not equal)

Licence status of at the fault drivers in speed related crashes in Wairoa District and all New Zealand (2006).

Licence status	Injury crashes—percentage of at fault or partly at fault drivers	
	Wairoa District	New Zealand
Full	48.9	43.0
Learner	14.9	15.3
Restricted	12.8	22.5
Never licensed	8.5	4.5
Disqualified	2.1	4.1
Overseas	6.4	3.7
Expired	0	0.5
Unknown	6.4	6.2

Further facts about speed related crashes in Wairoa District (divided into local roads and State Highways) (2002 -2006)

#### Local roads

- 2 serious injuries and 22 minor injuries
- Male drivers at fault in 83 percent injury crashes
- Most common crash type is *bend — loss of control/head on* (29 reported i.e. 78 percent))
- 32 percent at intersections
- 13 percent on wet roads
- 38 percent at night time
- Worst month is July (16 percent), best month April (nil crashes)
- Worst day of week Saturday (22 percent), best days Monday and Tuesday (3 percent each)

#### State highways

- 3 deaths, 15 serious injuries and 42 minor injuries
- Male drivers 77 percent
- Most common crash type is *bend — loss of control/head on* (52 reported i.e. 90 percent)
- 7 percent at intersections
- 43 percent on wet roads
- 43 percent at night time
- Worst month is May (14 percent), best months February and June (3 percent each)
- Worst day Wednesday and Saturday (21 percent each), best day Friday (9 percent)

## Recommended actions

### Engineering

- Continue to upgrade curve warning signs, markings and delineation on local rural roads, to the appropriate standards
- Identify locations where speed is a common contributing factor to crashes and investigate sites and road or state highway sections
- Maintain the roadside clear of hazards and provide side protection where appropriate
- Widen the road carriageway and seal shoulders to provide additional vehicle wander and recovery space
- Maintain pavement surface to provide good standards for skid resistance
- Improve road geometry where feasible and cost effective

### Education

- Focus on raising awareness of the consequences of travelling too fast for road and weather conditions
- Raise public awareness of the risks of speeding

### Enforcement

- Continue enforcement focusing on inappropriate speed, particularly in rural areas
- Target enforcement to times and locations of greatest risk
- Co-ordinate enforcement campaigns, targeting drivers that speed

## Alcohol

Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

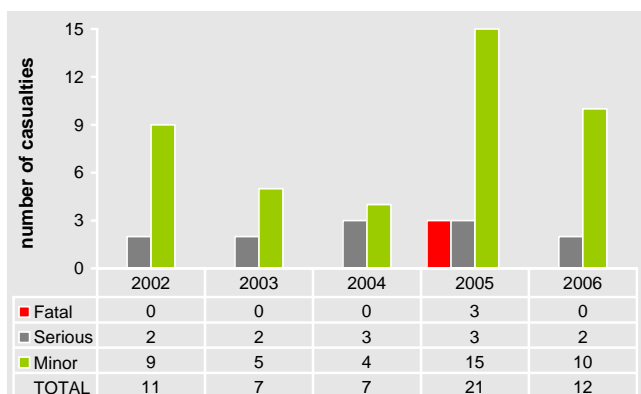
Contrary to popular opinion, people with high blood alcohol levels are more likely to be injured or killed in a crash than sober drivers in the same crash, and if injured, they are also more likely to encounter complications in their recovery.

In New Zealand for the 12 months to December 2006, alcohol-affected drivers contributed to 31 percent of all fatal crashes and 15 percent of all injury crashes.

In the Wairoa District, alcohol was a factor in 21 percent of all injury crashes in 2006, which is much higher than national average and higher than the last five year district average of 18 percent.

There were 34 alcohol-related injury crashes reported in the last five years. These crashes have resulted in three deaths, 12 serious and 43 minor injuries.

### Alcohol related crashes 2002-2006



Licence status of at the fault drivers in alcohol related injury crashes in Wairoa District and all New Zealand (2002-2006).

Licence status	Injury crashes percentage of at fault drivers	
	Wairoa District	New Zealand
Full	32.4	41.6
Learner	29.4	15.8
Restricted	11.8	20.8
Never licensed	11.8	4.6
Disqualified	8.8	6.2
Overseas	0	1.0
Expired	0	1.4
Unknown	5.9	8.2

Further facts about alcohol related crashes in Wairoa District (divided into local roads and state highways) (2002 -2006)

### Local roads

- 7 serious injuries and 26 minor injuries
- 71 percent of at fault drivers in injury crashes are male
- Most common crash type *bend — loss of control/head on*
- 20 percent at intersections
- 54 percent on urban roads
- 11 percent on wet roads
- 66 percent at night time
- Worst month October (20 percent)
- Worst day Saturday (26 percent)

### State highways

- 3 deaths, 5 serious injuries and 17 minor injuries
- 73 percent of at fault drivers in injury crashes are male
- Most common crash type *bend — loss of control/head on*
- 24 percent at intersections
- 28 percent on urban roads
- 16 percent on wet roads
- 32 percent at night time
- Worst month October (16 percent)
- Worst day Saturday (40 percent)

## Recommended actions

### Education

- Promoting safe drinking and driving habits, particularly among male drivers aged 15 to 35
- Consider targeted advertising promotions, involving community and licensee consultation, host responsibility and designated driver schemes
- Work with community groups such as SADD to convey sober driver messages to young drivers

### Enforcement

- Target enforcement at known high-risk areas and times and to the appropriate age group
- Co-ordinate enforcement campaigns, targeting drink-driving and working in conjunction with community programmes
- Continue to support compulsory breath testing programmes

## National issues

### Speed

Speed *too fast* was recorded in 17 percent of all nationally reported injury crashes in the last five years. In Wairoa District this factor was involved in 24 percent of injury crashes resulting in 3 deaths, 17 serious and 64 minor injuries. There was also 49 non-injury speed-related crashes reported. Speed as a factor in crashes is not reducing in the district.

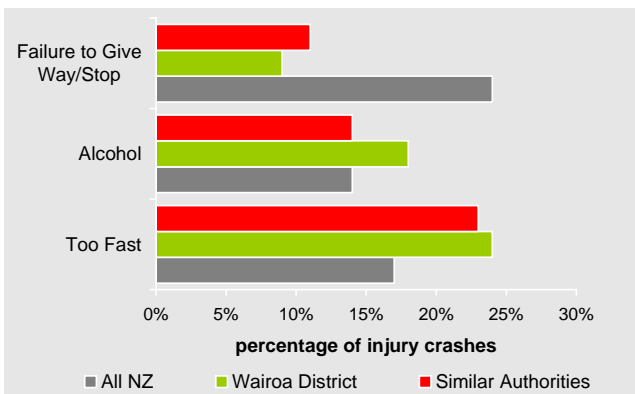
Eighty-five percent of speed-related injury crashes were *bend-lost control/head on*. Male drivers aged less than 19 years old were involved in almost quarter of the speed-related crashes.

### Alcohol

Alcohol was involved in 14 percent of all nationally reported injury crashes in the last five years. In Wairoa District this factor was involved in 18 percent of injury crashes resulting in 3 deaths, 12 serious and 43 minor injuries. Alcohol as a factor in crashes is not reducing in the district.

### Failure to give way

Failure to give way or stop was reported in 24 percent of all nationally reported injury crashes for the last five years. In Wairoa District this was involved in 9 percent of all reported injury crashes for the last five years resulting 28 minor injuries. There was also 49 non-injury crashes reported with this factor. Eighty-eight percent of the crashes were in urban areas of the district.



### Restraints

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a regional level, and may not be fully appropriate to a Territorial Authority. The results are obtainable from the Ministry of Transport website.

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

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