

# briefing notes - road safety issues

## West Waikato

New Zealand Transport Agency has prepared this road safety issues report. It is based on reported crash data and trends for the 2004–2008 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 West Waikato. In this report the West Waikato area includes Waipa, Otorohanga and Waitomo District Councils.

This report is the tenth road safety report for the West Waikato. All the material unless otherwise stated in this report applies to both local roads and state highways.

In each new report one year's data is added to a five year block and the oldest dropped so it is unlikely that the core issues 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 the West Waikato is compared to similar local bodies or those with high social cost (high numbers of fatal and serious crashes mainly).

We have included a brief overview of crashes in the districts.

We encourage councils in the West Waikato to use their free access to the Ministry of Transport's Crash Analysis System (CAS) to delve deeper into the highlighted issues. All data in this report is from CAS.

Major road safety issues *		2008 road trauma	
West Waikato		Casualties	West Waikato
Alcohol		Deaths	9
Speed		Serious casualties	55
Bend / Loss of Control		Minor casualties	232
Intersections			
Nationally		Crashes	West Waikato
Speed		Fatal crashes	9
Alcohol		Serious injury crashes	43
Failure to give way		Minor injury crashes	166
Restraints		Non-injury crashes	389

\* Issues are not in any specific order of importance

## Overview

In 2008 on local roads in the West Waikato there were 97 injury crashes and 181 non-injury crashes. In addition there were 121 injury crashes and 208 non-injury crashes on state highways both as reported by the New Zealand Police.

The tables below show the number of injuries resulting from the 218 injury crashes on local roads and state highways.

### Casualties by urban / rural 2008

	Fatalities	Serious injuries	Minor injuries	Total
Rural	8	41	165	214
Urban	1	14	67	82
Total	9	55	232	296

### Casualties by state highway / local road 2008

	Fatalities	Serious injuries	Minor injuries	Total
Local roads	7	16	102	125
State highways	2	39	130	171
Total	9	55	232	296

### Crash trends in the West Waikato

Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Injury Crashes
1999	20	47	137	204
2000	12	44	132	188
2001	15	36	142	193
2002	6	45	139	190
2003	8	47	170	225
2004	10	54	137	201
2005	14	52	167	233
2006	15	48	185	248
2007	7	38	180	225
2008	9	43	166	218

### Local road crashes

Crash type or contributory cause 2004 to 2008	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol	19	17
Too fast	31	27
At bends	48	45
At intersections	22	26
Pedestrians	6	5
Cyclists	6	6
Motorcyclists	19	10
Road factors	16	17
Night time	31	33

Further information about injury and non-injury crashes on **local roads** in the West Waikato 2004 to 2008:

- Worst months April & September (equal), best January & July (equal)
- Worst day Friday, best Monday
- 28 percent on wet roads
- 35 percent at night
- 33 percent at intersections
- 1043 roadside objects struck
- Social cost of crashes in 2008 \$52m

Further information about injury and non-injury crashes on **state highways** in the West Waikato 2004 to 2008:

- Worst months March, April & July (equal), best September
- Worst day Friday, best Monday
- 37 percent on wet roads
- 35 percent at night
- 25 percent at intersections
- 1203 roadside objects struck
- Social cost of crashes in 2008 \$44m

## Speed

Nationally, speed is one of the major contributing factors to road crashes. Reducing speeds 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 situations and it leads to more serious injuries. Research has shown that a 1 km/h reduction in mean speed can produce a 3 percent reduction in injury crashes.

Between 2004 and 2008 23 percent of injury crashes in the West Waikato involved travelling too fast for the conditions. These crashes resulted in 22 fatalities, 85 serious injuries and 299 minor injuries.

Crash numbers rose between 2004 and 2006 but have decreased over the last 2 years.

Total crash numbers increased between 2004 and 2006 but have decreased over the last 2 years.

Speed related crashes					
Speed related crashes	2004	2005	2006	2007	2008
Rural	30	47	49	48	44
Urban	7	6	10	9	10
Total	37	53	59	57	54

The other main causes contributing to speed related crashes were:

- Handling errors
- Alcohol
- General errors of judgement

Speed related crashes by location	
Road (road lengths may differ)	2004-2008
SH 3—500m south of Maraetaua Rd	\$470,000
Cambridge Rd—400m north of Kaipaki Rd	\$1,800,000
Flat Rd—20m north of McGhie Rd	\$375,000
SH 21 / Raynes Rd intersection	\$283,000
SH 3—450m east of Paekaka Rd	\$281,000

## Age and sex of at fault drivers in speed related injury crashes

Drivers age *	Male	Female	Total
2004 - 2008			
15-19 years	49	19	68
20 - 24	43	16	59
25 - 29	21	6	27
30 - 39	35	10	45
40 - 49	18	8	26
50 - 59	18	4	22
60 - 69	2	5	7
70+	3	1	4
<b>Total</b>	<b>189</b>	<b>69</b>	<b>258</b>

\* note age ranges are not equal

Further information about the 133 speed related injury crashes in the West Waikato on **local roads** 2004 to 2008:

- 9 deaths, 43 serious injuries and 148 minor injuries
- Most common crash type 'Lost control on bend'
- 82 percent midblock
- 32 percent wet road
- 47 percent night time
- Worst month February, best September
- Worst day of week Sunday, best Tuesday
- Worst three hour time period 3pm to 6pm and 6pm to 9pm (equal)

Further information about speed related injury crashes in the West Waikato on **state highways** 2004 to 2008:

- 13 deaths, 42 serious injuries and 151 minor injuries
- Most common crash type 'Lost control on bend'
- 87 percent midblock
- 51 percent wet road
- 38 percent night time
- Worst month December, best September & November (equal)
- Worst day of week Friday, best Thursday
- Worst three hour time period 3pm to 6pm

## Intersections

During the five year period 2004 to 2008 within the West Waikato there were a total of 951 crashes at intersections, 264 of these were injury crashes and 687 non-injury.

70 percent of these were in urban areas and 7 people were killed, 61 received serious injuries and 328 received minor injuries.

Crashes at Intersections					
	2004	2005	2006	2007	2008
Injury crash	50	61	56	44	53
Non-injury crash	128	144	139	150	126
Total	178	205	195	194	179

Locations with the most injury crashes 2004 to 2008		
Intersection name (Within a radius of 50m)	Injury crashes 2004 - 2008	total Injury crashes 2008
SH 1 / Duke St	10	2
SH 3 / SH 21	6	1
SH 1B / SH 1	6	2
SH 21 / Raynes Rd	5	1
Shakespeare St / Lamb St	5	1

Junction control Injury and non-injury crashes				
Junction control	Traffic signals	Nil	Give Way	Stop
Number of crashes	1	245	515	182

The most common crash type at intersections is when a driver turns right and is hit by a vehicle approaching from the right.

The main causes contributing to crashes described in Police reports were:

- Failure to stop and give way
- Not checking properly
- General errors of judgement

Junction type Injury and Non-injury crashes		
Junction Type	Open	Urban
Roundabout	-	55
Tee	237	323
Cross (X)	27	243
Y	16	12
Other (includes driveways)	6	32

Further information about the 127 injury crashes at intersections on **local roads** in the West Waikato 2004 to 2008:

- 6 deaths, 28 serious injuries and 151 minor injuries
- 28 percent wet roads
- 33 percent night time
- Worst month June, best October
- Worst day of week Saturday, best Sunday
- Worst three hour time period 3pm to 6pm

Further information about the 137 injury crashes at intersections on **state highways** in the West Waikato 2004 to 2008:

- 1 death, 33 serious injuries and 177 minor injuries
- 28 percent wet roads
- 21 percent night time
- Worst month April, best September
- Worst day of week Friday, best Monday
- Worst three hour time period 3pm to 6pm

## 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 a sober driver 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 2008, alcohol-affected drivers contributed to 34 percent of all fatal crashes (the same as 2007) and 15 percent of all injury crashes (the same as 2007).

In West Waikato alcohol was a factor in 17 percent of injury crashes in 2008.

### Number of alcohol related injury crashes

Crash year	Open road	Urban road	Total
2004	14	6	20
2005	16	7	23
2006	27	12	39
2007	26	12	38
2008	28	8	36
Total	111	45	156

(Open road is classified as any area with a speed limit of 80km/hr or more )

From the beginning of 2007 New Zealand Transport Agency (formerly Land Transport NZ) has been adding driver factor codes to all non-injury crashes for the West Waikato districts.

This will allow the Police and other agencies to target alcohol related crashes more quickly and with even more geographic accuracy than ever before.

In 2008 there were 47 non-injury alcohol related crashes reported by the Police in the West Waikato.

### Alcohol related injury crashes by location

Road (road lengths may differ)	Crash social costs 2004-2008
SH 1—600m east of Peake Rd	\$187,000
SH 1—2200m east of Shakespeare St	\$896,00
SH 3—100m south of Ye Old Mill Rd	\$4,720,000
SH 3—30m south of Blackett Rd	\$1,605,000
SH 3—150m west of Golf Rd	\$764,000

Further information about the 84 alcohol related injury crashes in the West Waikato on **local roads** 2004 to 2008:

- 9 deaths, 22 serious injuries and 85 minor injuries
- 83 percent of at fault drivers were male
- Most common crash type 'Lost control on left hand bend'
- 15 percent at intersections
- 39 percent urban
- 27 percent wet road
- 68 percent night time
- Worst three hour time period midnight to 3am
- Worst month February, best May
- Worst day of week Saturday, best Monday

Further information about the 72 alcohol related injury crashes in the West Waikato on **state highways** 2004 to 2008:

- 6 deaths, 42 serious injuries and 82 minor injuries
- 72 percent of at fault drivers were male
- Most common crash type 'Lost control on right hand bend'
- 8 percent at intersections
- 17 percent urban
- 33 percent wet road
- 64 percent night time
- Worst three hour time period 9pm to midnight
- Worst months January & September (equal), best April
- Worst day of week Sunday, best Wednesday

## Bends – loss of control or head on

Between 2004 and 2008 47 percent of all injury crashes in the West Waikato were loss of control or head on crashes at bends. These crashes resulted in 39 fatalities, 159 serious injuries and 583 minor injuries.

Crash numbers have fluctuated between 2004 and 2006 and have remained steady at just over 100 for the last 2 years.

Crashes at bends 2004 to 2008				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2004	7	25	65	197
2005	8	22	78	109
2006	6	25	92	123
2007	3	16	82	101
2008	7	26	68	101
Total	31	115	385	531

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 off-road event turning into something far more serious.

The most common roadside hazards struck in injury loss of control or head on crashes on bends in the West Waikato were fences (165), cliffs or banks (127), ditches (60) and trees (53) from a total of 585 objects struck.

Main characteristics of injury lost control or head on crashes at bends	
Crash characteristic	Percentage of crashes
Single vehicle	79
Alcohol	21
Excessive speed for the conditions	42
Road factors	26
Poor handling	34
Rural road	89
Wet road	38
Night time	36

Further information about the 224 injury loss of control or head on crashes on bends on **local roads** in the West Waikato 2004 to 2008:

- 18 deaths, 57 serious injuries and 242 minor injuries
- 69 percent of at fault drivers were male
- Most common at fault driver age group was 15 to 19 years (30 percent of all at fault drivers)
- 23 percent of crashes involved alcohol
- 52 percent of crashes involved 'too fast for the conditions'
- Worst month February, best October
- Worst day of week Sunday, best Monday
- Worst three hour time period 3pm to 6pm

Further information about the 307 injury loss of control or head on crashes on bends on **state highways** in the West Waikato 2004 to 2008:

- 21 deaths, 102 serious injuries and 341 minor injuries
- 69 percent of at fault drivers were male
- Most common at fault driver age group was 20 to 24 years (20 percent of at fault drivers)
- 13 percent of crashes involved alcohol
- 35 percent of crashes involved 'too fast for the conditions'
- Worst month February, best September
- Worst day of week Friday, best Wednesday
- Worst three hour time period midday to 3pm

## Straight road – loss of control or head on

Between 2004 and 2008 16 percent of all injury crashes in the West Waikato involved loss of control or head on crashes on straight roads. 18 percent of fatal and serious crashes in the district were of this type. These 184 crashes resulted in 7 fatalities, 60 serious injuries and 202 minor injuries.

### Loss of control — straight roads injury crashes 2004 to 2008

Crash year	Fatal crashes	Serious crashes	Minor crashes
2004	-	10	15
2005	2	6	25
2006	3	10	30
2007	2	11	31
2008	-	7	32
Total	7	44	133

Most of these crashes occurred when a driver loses control of their vehicle and either runs off the road or collides 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 off-road event turning into something far more serious.

The most common roadside hazards struck in injury crashes in the West Waikato were fences (47), ditches (42), cliffs or banks (28) and trees (26) from a total of 225 objects struck.

### Main characteristics of injury loss of control crashes— straight roads 2004 to 2008

Crash characteristic	Percentage of crashes
Single vehicle	82
Alcohol	20
Excessive speed for the conditions	7
Road factors	10
Poor handling	21
Rural road	84
Wet road	24
Night time	40

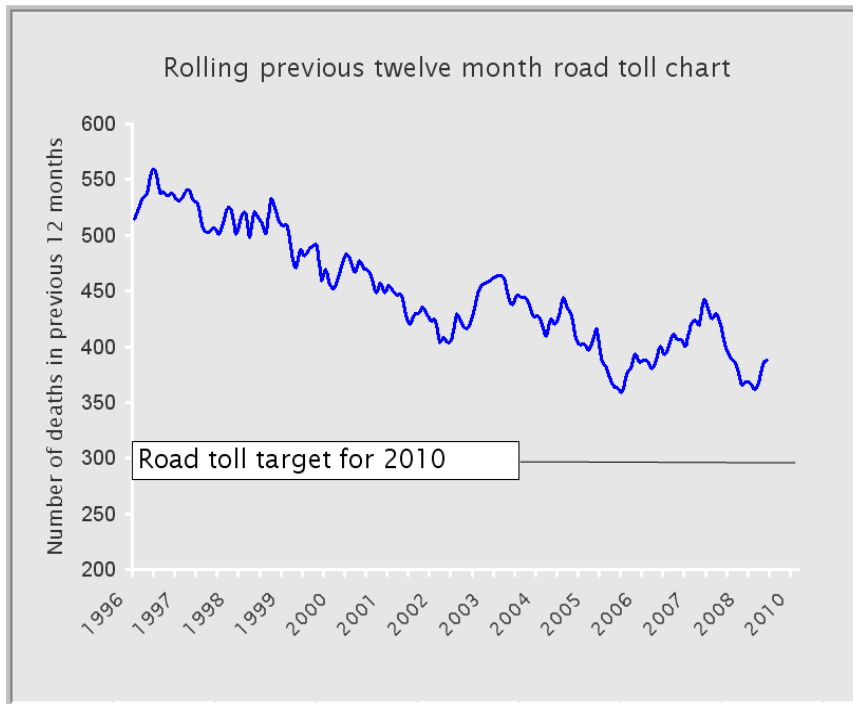
Further information about the 70 injury loss of control crashes on straights on **local roads** in the West Waikato 2004 to 2008:

- 1 death, 19 serious injuries and 63 minor injuries
- 69 percent of at fault drivers were male
- Most common crash type 'off road to left'
- Most common at fault driver age group was 15 to 19 years
- 27 percent of crashes involved alcohol
- 10 percent of crashes involved speed
- 19 percent involved 'road factors'
- 21 percent involved fatigue
- 26 percent involved trees as a struck object
- 30 percent in the wet
- 40 percent at night
- Worst month June, best January
- Worst days of week Wednesday & Thursday (equal), best Tuesday
- Worst three hour time period 3pm to 6pm

Further information about the 114 injury loss of control crashes on straights on **state highways** in the West Waikato 2004 to 2008:

- 6 deaths, 41 serious injuries and 139 minor injuries
- 67 percent of at fault drivers were male
- Most common crash type 'off road to left'
- Most common at fault driver age group was 15 to 19 years
- 15 percent of crashes involved alcohol
- 5 percent of crashes involved speed
- 5 percent involved 'road factors'
- 40 percent involved fatigue
- 28 percent involved ditches as a struck object
- 21 percent in the wet
- 39 percent at night
- Worst month March, best February
- Worst day of week Sunday, best Wednesday
- Worst three hour time period midday to 3pm

## The next ten years—moving beyond Road Safety 2010



In August this year the Ministry of Transport will embark on a nationwide road safety consultation programme as it moves to formulate priorities for the next ten years.

Information will be published on their web site and we would encourage any person or group with an interest in road safety to watch the site carefully for developments. Follow this link :

<http://www.transport.govt.nz/ourwork/Land/landsafety/SaferJourneys-RoadSafetyStrategyto2020/>

The chart on the left illustrates the progress made during the life of the Road Safety 2010 strategy and although progress has been made it would seem highly unlikely that the target of 300 or fewer fatalities will be met.

### Restraints

The Ministry of Transport (MoT) conducts surveys of restraint use. Results are available for front, rear and child restraints although not all at a local authority level.

See the MoT website : <http://www.transport.govt.nz/research/safetybeltstatistics/>

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