


New Zealand Government

briefing notes - road safety issues

Waikato District

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 Waikato district.

This report is the tenth road safety report for the Waikato district. 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 Waikato district 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 district.

We encourage Waikato District Council to use its 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 *

Waikato District

Alcohol

Speed

Bend / Loss of Control

Intersections

Nationally

Speed

Alcohol

Failure to give way

Restraints

2008 road trauma

Casualties

Waikato District

Deaths 10

Serious casualties 45

Minor casualties 207

Crashes

Waikato District

Fatal crashes 7

Serious injury crashes 39

Minor injury crashes 142

Non-injury crashes 481

* Issues are not in any specific order of importance

Overview

In 2008 on local roads in the Waikato district there were 92 injury crashes and 116 non-injury crashes. In addition there were 96 injury crashes and 177 non-injury crashes on state highways both as reported by the New Zealand Police.

The table below shows the number of injuries resulting from the 188 injury crashes on local roads and state highways.

Casualties by urban / rural 2008

	Fatalities	Serious injuries	Minor injuries	Total
Rural	8	39	166	213
Urban	2	6	41	49
Total	10	45	207	262

Casualties by state highway / local road 2008

	Fatalities	Serious injuries	Minor injuries	Total
Local roads	3	22	99	124
State highways	7	23	108	138
Total	10	45	207	262

Crash trends in the Waikato District

Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Injury Crashes
1999	16	38	117	171
2000	18	37	119	174
2001	13	30	126	169
2002	16	37	134	187
2003	19	41	136	196
2004	10	44	156	210
2005	15	29	150	194
2006	12	51	135	198
2007	15	48	157	220
2008	7	39	142	188

Local road crashes

Crash type or contributory cause 2004 to 2008	Percentage fatal and serious crashes of this type or contributory cause	Percentage of all injury crashes of this type or contributory cause
Alcohol	32	21
Too fast	35	26
At bends	53	49
At intersections	10	21
Pedestrians	5	3
Cyclists	3	4
Motorcyclists	23	11
Road factors	13	18
Night time	52	39

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

- Worst months March, May & December (equal) best January
- Worst days Saturday & Sunday (equal), best Tuesday
- 32 percent on wet roads
- 41 percent at night
- 23 percent at intersections
- 932 roadside objects struck
- Social cost of crashes in 2008 \$30m

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

- Worst month June, best April
- Worst day Sunday, best Wednesday
- 31 percent on wet roads
- 33 percent at night
- 26 percent at intersections
- 1095 roadside objects struck
- Social cost of crashes in 2008 \$51m

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 21 percent of injury crashes in the Waikato district involved travelling too fast for the conditions. These crashes resulted in 22 fatalities, 72 serious injuries and 204 minor injuries.

Total crash numbers have decreased each year for the last 5 years.

Speed related crashes

Speed related crashes	2004	2005	2006	2007	2008
Rural	38	38	35	37	30
Urban	9	7	8	3	7
Total	47	45	43	40	37

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 39 / Limmer Rd	\$1,175,000
SH 23—700m west of Howden Rd	\$950,000
SH 39—900m south of Saulbrey Rd	\$1,700,000
SH 23 - 1400m east of Cogswell Rd	\$4,860,000
SH 1—200m south of Hopuhopu Bridge	\$280,000

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

Drivers age *	Male	Female	Total
2004 - 2008			
15-19 years	34	12	46
20 - 24	29	13	42
25 - 29	24	4	28
30 - 39	34	8	42
40 - 49	27	5	32
50 - 59	11	2	13
60 - 69	5	2	7
70+	2	-	2
Total	166	46	212

* note age ranges are not equal

Further information about speed related injury crashes in the Waikato district on **local roads** (2004 to 2008):

- 14 deaths, 40 serious injuries and 109 minor injuries
- Most common crash type 'Lost control on a bend'
- 82 percent midblock
- 36 percent wet road
- 46 percent night time
- Worst month September, best November
- Worst day of week Saturday, best Monday
- Worst three hour time period 6pm to 9pm

Further information about speed related injury crashes in the Waikato district on **state highways** roads (2004 to 2008):

- 8 deaths, 32 serious injuries and 95 minor injuries
- Most common crash type 'Lost control on bend'
- 82 percent midblock
- 43 percent wet road
- 41 percent night time
- Worst month December, best May
- Worst day of week Saturday, best Friday
- Worst three hour time period 9am to midday

Intersections

During the five year period 2004 to 2008 within Waikato district there were a total of 641 crashes at intersections, 239 of these were injury crashes and 403 non-injury.

39 percent of these were in urban areas and 11 people were killed, 42 received serious injuries and 305 received minor injuries.

Crashes at Intersections					
	2004	2005	2006	2007	2008
Injury crash	51	41	50	51	46
Non-injury crash	73	83	86	84	77
Total	124	124	136	135	123

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 1B / Holland Rd	13	2
SH 1 / Tainui Bridge	9	1
SH 1B / Tauwhare Rd	6	-
SH 1 / Glen Murray Rd	5	1
SH 2 / Kopuku Rd	-	4

Junction control Injury and non-injury crashes				
Junction control	Traffic signals	Nil	Give Way	Stop
Number of crashes	25	161	293	157

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	7	20
Tee	321	189
Cross (X)	43	33
Y	11	5
Other (includes driveways)	6	6

Further information about the 98 injury crashes at intersections on **local roads** in the Waikato district 2004 to 2008:

- 1 death, 14 serious injuries and 115 minor injuries
- 33 percent wet roads
- 29 percent night time
- Worst month March, best January & August (equal)
- Worst day of week Monday, best Tuesday & Wednesday (equal)
- Worst three hour time period 3pm to 6pm

Further information about the 141 injury crashes at intersections on **state highways** in the Waikato district 2004 to 2008:

- 10 deaths, 28 serious injuries and 190 minor injuries
- 33 percent wet roads
- 28 percent night time
- Worst month June, best May
- 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 the Waikato district alcohol was a factor in 22 percent of injury crashes in 2008.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2004	26	15	41
2005	25	1	26
2006	24	4	28
2007	39	4	43
2008	35	6	41
Total	149	30	179

(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 Waikato district.

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 42 non-injury alcohol related crashes reported by the Police in the Waikato district

Alcohol related injury crashes by location

Road (road lengths may differ)	Crash social costs 2004-2008
SH 1—700m north of Bern Rd	\$4,900,000
Te Ohaki Rd—8500m north of Harris St	\$950,000
River Rd—500m east of Driver Rd west	\$280,000
SH 1 / Island Block Rd intersection	\$190,000
SH 1—500m south of Island Block Rd	\$900,000

Further information about the 95 alcohol related injury crashes in the Waikato district on **local roads** 2004 to 2008:

- 12 deaths, 32 serious injuries and 83 minor injuries
- 80 percent of at fault drivers were male
- Most common crash type ‘Lost control on bend’
- 18 percent at intersections
- 25 percent urban
- 26 percent wet road
- 67 percent night time
- Worst three hour time period 9pm to midnight
- Worst month September, best June
- Worst day of week Sunday, best Monday & Wednesday (equal)

Further information about the 84 alcohol related injury crashes in the Waikato district on **state highways** 2004 to 2008:

- 11 deaths, 37 serious injuries and 77 minor injuries
- 85 percent of at fault drivers were male
- Most common crash type ‘Lost control on bend’
- 15 percent at intersections
- 7 percent urban
- 29 percent wet road
- 58 percent night time
- Worst three hour time period 3am to 6am
- Worst month October, best September,
- Worst day of week Sunday, best Wednesday

Bends – loss of control or head on

Between 2004 and 2008 forty two percent of all injury crashes in the Waikato district were loss of control or head on crashes at bends. These crashes resulted in 33 fatalities, 133 serious injuries and 400 minor injuries.

Crash numbers have fluctuated over the last 5 years.

Crashes at bends 2004 to 2008

Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2004	3	24	57	84
2005	9	15	64	88
2006	5	18	50	73
2007	7	27	57	91
2008	2	17	67	86
Total	26	101	295	422

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 Waikato district were fences (112), ditches (57), fences (53) and cliffs or banks (19) from a total of 455 objects struck.

Main characteristics of injury lost control or head on crashes at bends

Crash characteristic	Percentage of crashes
Single vehicle	77
Alcohol	23
Excessive speed for the conditions	37
Road factors	22
Poor handling	33
Rural road	90
Wet road	38
Night time	46

Further information about the 226 injury loss of control or head on crashes on bends on **local roads** in the Waikato district 2004 to 2008:

- 13 deaths, 62 serious injuries and 219 minor injuries
- 74 percent of at fault drivers were male
- Most common at fault driver age group was 15 to 19 years (20 percent of all at fault drivers)
- 28 percent of crashes involved alcohol
- 42 percent of crashes involved 'too fast for the conditions'
- Worst month December, best July
- Worst day of week Sunday, best Wednesday
- Worst three hour time period 3pm to 6pm

Further information about the 196 injury loss of control or head on crashes on bends on **state highways** in the Waikato district 2004 to 2008:

- 20 deaths, 71 serious injuries and 183 minor injuries
- 72 percent of at fault drivers were male
- Most common at fault driver age group was 30 to 39 years (22 percent of at fault drivers)
- 18 percent of crashes involved alcohol
- 32 percent of crashes involved 'too fast for the conditions'
- Worst month December, best September
- Worst day of week Sunday, best Monday & Tuesday (equal)
- Worst three hour time period 3pm to 6pm

Straight road – loss of control or head on

Between 2004 and 2008 20 percent of all injury crashes in the Waikato district involved loss of control or head on crashes on straight roads.

23 percent of fatal and serious crashes in the district were of this type.

These 198 crashes resulted in 25 fatalities, 56 serious injuries and 223 minor injuries.

Loss of control — straight roads injury crashes 2004 to 2008			
Crash year	Fatal crashes	Serious crashes	Minor crashes
2004	5	8	27
2005	4	10	33
2006	4	13	25
2007	3	8	35
2008	2	6	15
Total	18	45	135

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 Waikato district were ditches (37), fences (46), cliffs or banks (22) and poles or posts (34) from a total of 205 objects struck.

Main characteristics of injury loss of control crashes— straight roads 2004 to 2008	
Crash characteristic	Percentage of crashes
Single vehicle	75
Alcohol	21
Excessive speed for the conditions	11
Road factors	14
Poor handling	25
Rural road	89
Wet road	24
Night time	39

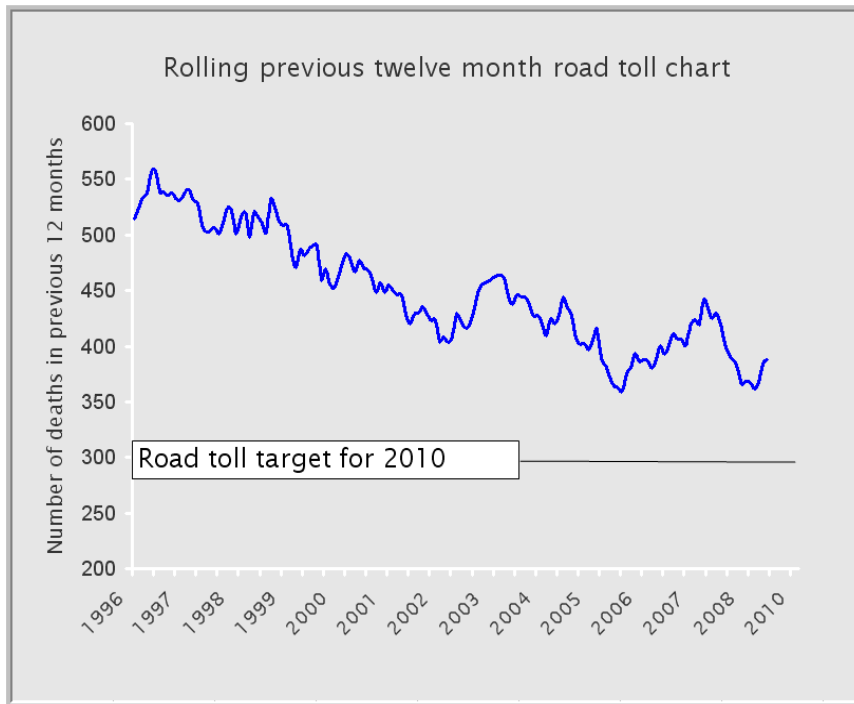
Further information about the 184 injury loss of control crashes on straights on **local roads** in the Waikato district 2004 to 2008:

- 9 deaths, 25 serious injuries and 81 minor injuries
- 62 percent of at fault drivers were male
- Most common crash type ‘off road to the left’
- Most common at fault driver age group was 40 to 49 years
- 25 percent of crashes involved alcohol
- 17 percent of crashes involved speed
- 14 percent involved ‘road factors’
- 18 percent involved fatigue
- 19 percent involved ditches as a struck object
- 26 percent in the wet
- 46 percent at night
- Worst month March, best January
- Worst day of week Sunday, best Monday
- 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 Waikato district 2004 to 2008:

- 16 deaths, 31 serious injuries and 142 minor injuries
- 67 percent of at fault drivers were male
- Most common crash type ‘off road to the left’
- Most common at fault driver age group was 30 to 39 years
- 18 percent of crashes involved alcohol
- 6 percent of crashes involved speed
- 13 percent involved “road factors”
- 38 percent involved fatigue
- 18 percent involved ditches as a struck object
- 25 percent in the wet
- 33 percent at night
- Worst month December, best April
- Worst day of week Thursday, best Tuesday
- Worst three hour time period 3pm to 6pm

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/>

Contacts

New Zealand Transport Agency

Regional Director (Waikato / Bay of Plenty)
Harry Wilson

Programme and Funding Manager
Andrew McKillop

Area Engineer State Highways
Gerhard van Blerk

Regional Communications Advisor
Julie Hannam

Private Bag 3081, Hamilton
Phone 07 958 7840

www.nzta.govt.nz

Local Authority

Road Safety Co-ordinator
Megan Jolly

Transportation Manager
Tony Peake

Waikato District Council
Private Bag 544
Ngaruawahia

Phone 07 824 8633

www.waikatodistrict.govt.nz

New Zealand Police

Inspector Leo Tooman
Road Policing Manager
New Zealand Police
Waikato
PO Box 3078
Hamilton

Phone 07 858 6200
www.police.govt.nz