



briefing notes - road safety issues

Waikato 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 Waikato District.

This report is the eighth road safety report for the Waikato District. The data in this report applies to local roads and State Highways in the Waikato District.

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 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 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 for 2006.

We encourage local authorities to use the Ministry of Transport's Crash Analysis System (CAS) to further investigate the highlighted issues.

Major Road Safety Issues

Waikato District

Intersections
Alcohol
Speed
Bends – Loss of Control

Nationally

Speed
Alcohol
Failure to give way
Restraints

2006 road trauma

Casualties

Deaths	14
Serious casualties	63
Minor casualties	202

Crashes

Fatal crashes	12
Serious injury crashes	50
Minor injury crashes	133
Non-injury crashes	349

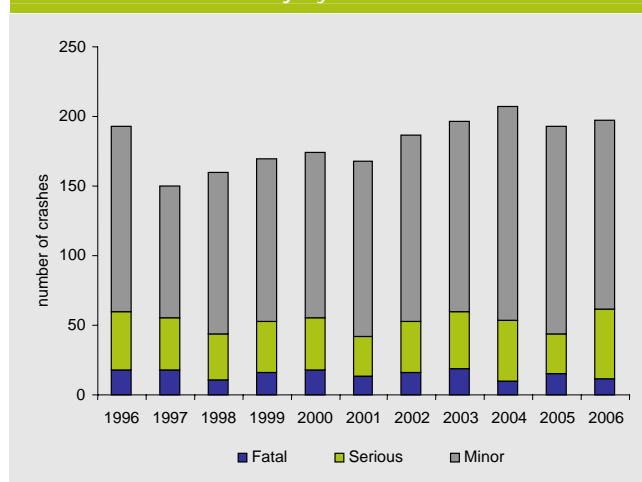
Overview of 2006

In 2006 on local roads in Waikato District there were 77 injury crashes and 132 non-injury crashes, in addition there were 118 injury crashes and 217 non-injury crashes on State Highways, as reported by the New Zealand Police.

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

	Fatalities	Serious injuries	Minor injuries	Total
Rural	13	55	159	227
Urban	1	8	43	52
Total	14	63	202	279

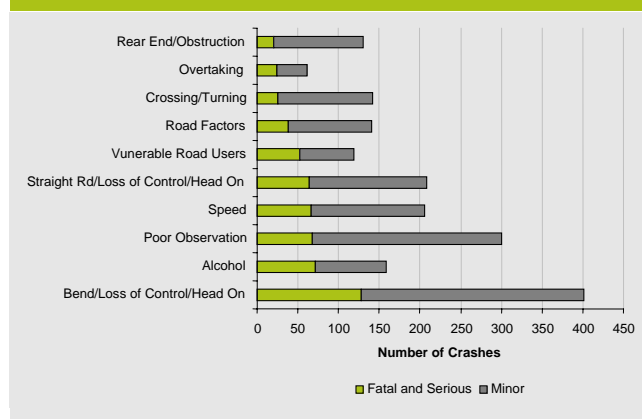
Waikato District injury crashes 1996 - 2006



Fatalities in the district have been fluctuating over the last 10 years.

Serious injuries have remained relatively steady over the last 10 years.

Main crash characteristics 2002 - 2006



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

- Worst month October (12), best January (12)
- Worst day Sunday (36), best Thursday (23)
- Wet road 34 percent
- Night time 40 percent
- Midblock 78 percent
- 70 percent of at fault drivers are male (injury crashes)
- 51 percent of at fault drivers in injury crashes have a full NZ licence

Further information about 2006 injury and non injury crashes on Transit roads

- Worst month October (18), best April (4)
- Worst day Friday (56) , best Monday (40)
- Wet road 35 percent
- Night time 35 percent
- Midblock 73 percent
- 72 percent of at fault drivers are male (injury crashes)
- 63 percent of at fault drivers in injury crashes have a full NZ licence

It has been observed nationally that there is 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 certainly true in Waikato District with only 58 percent of at fault drivers in injury crashes being the holder of a full driving licence.

Driver licence status (injury crashes, at fault drivers in the Waikato District)	Percentage of total at fault drivers (NZ value in brackets)
Full	58.1 (58.4) %
Learner	8.9 (9.5) %
Restricted	16.8 (17.6) %
Never Licenced	2.2 (2.2) %
Disqualified	1.7 (1.7) %
Overseas	5.0 (4.2) %
Expired	1.1 (0.5) %
Other / unknown	6.1 (5.6) %

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 Waikato District, excessive speed was a factor in 21 percent of injury crashes in 2006.

Speed related injury crashes	2002	2003	2004	2005	2006
Urban	8	6	9	8	8
Rural	24	37	38	35	33
Total	32	43	47	43	41

There were 206 speed-related injury crashes reported in the last five years.

Males are also highly represented as at fault drivers in speed related crashes, accounting for 74 percent of drivers

Drivers at fault or part fault in speed related injury crashes (2002-2006) *	Male	Female	Total
15- 19 years	32	13	45
20 - 24	26	18	44
25 - 29	17	4	21
30 - 39	31	5	36
40 - 49	25	6	31
50 - 59	10	3	13
60 - 69	4	3	7
70+	2	1	3
Total	147	53	200

* (note ranges are not equal)

The following table illustrates the licence status of at fault drivers in speed related crashes in Waikato District and all New Zealand (2006).

Driver licence status, speed related injury crashes, at fault drivers in Waikato District	Percentage of total at fault drivers in speed related crashes (NZ value in brackets)
Full	57.9 (43.0) percent
Learner	13.2 (15.3) percent
Restricted	18.4 (22.5) percent
Never Licenced	2.6 (4.5) percent
Disqualified	0 (4.1) percent
Overseas	0 (3.7) percent
Expired	2.6 (0.5) percent
Other / unknown	5.3 (6.2) percent

Further facts about speed related crashes in Waikato District (divided into local roads and Transit roads) (2002 -2006)

Local roads

- 17 deaths, 31 serious injuries, 119 minor injuries
- Male drivers 74 percent
- Most common crash type Bends – (lost control/head on)
- 80 percent at midblock
- 41 percent wet road
- 43 percent night time
- Worst month May, best July
- Worst day of week Saturday, best Monday

Transit roads

- 9 deaths, 28 serious injuries 75 minor injuries
- Male 73 percent
- Most common crash type Bends – (lost control/head on)
- 20 percent at intersections
- 51 percent wet road
- 36 percent night time
- Worst month October, best September
- Worst day Sunday, best Friday

Intersections

Crashes at intersections are the second most common crash type in both areas of Waikato District.

During the five year period 2002 to 2006 there were 237 injury crashes at intersections and 393 non-injury crashes. In these 15 people died, 41 received serious injuries and 316 received minor injuries.

Intersection crashes	2002	2003	2004	2005	2006
Injury crash	46	52	49	41	49
Non-injury crash	66	87	73	82	85
Total	112	139	122	123	135

The table below shows the locations of the five intersections with the highest number of crashes in Waikato District between 2002 and 2006.

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
SH 1 / Tainui Bridge Road	22	10	4
SH 1B / Holland Road	20	10	8
SH 1 / Newcastle Street	13	4	3
SH 1 / Pukete Road	13	5	2
SH 1 / Te Kauwhata Road	13	3	7

Crashes at Tee junctions in rural areas are the most common type of intersection crash reported, followed by crashes at Tee urban junctions.

Junction type	Rural	Urban
Roundabout	3	18
Tee	310	176
Cross (X)	46	31
Y	17	7
Other (includes driveways)	12	10

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

- Not checking properly
- Failure to stop and give way
- Too fast

Intersections present most drivers with one of their biggest driving challenges and as a result less experienced drivers are well represented in these crashes as illustrated in the table below showing licence class of at fault drivers.

Driver licence status, intersection related injury crashes, at fault drivers in Waikato District	Percentage of total at fault drivers in intersection related crashes (NZ value in brackets)
Full	62.9 (60.9) %
Learner	8.2 (9.4) %
Restricted	11.5 (14.8) %
Never licenced	2.1 (2.5) %
Disqualified	2.1 (1.6) %
Overseas	4.9 (3.7) %
Expired	0 (0.8) %
Other / unknown	8.2 (6.3) %

Further facts about intersection related crashes in Waikato District 2002 to 2006 (divided into local roads and Transit roads):

Local roads

- 1 death, 10 serious injuries, 104 minor injuries
- 70 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 9 percent alcohol over limit
- 33 percent urban
- 37 percent wet roads
- 27 percent night time
- Worst month July, best June
- Worst day of week Sunday, best Tuesday

Transit roads

- 14 deaths, 31 serious injuries, 212 minor injuries
- 70 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 5 percent alcohol over limit
- 30 percent urban
- 26 percent wet roads
- 28 percent night time
- Worst month October, best January
- Worst day of week Friday, best Monday

Drink-driving

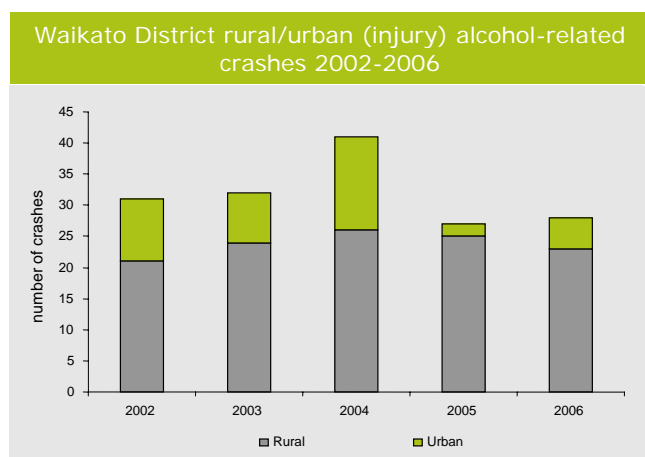
Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

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 Waikato District alcohol was a factor in 15 percent of injury crashes in 2006, an increase from 2005, and increasing in line with the national trend.

There were 160 alcohol-related injury crashes reported in the last five years.



Key locations

The following provides a breakdown of the key locations in the Waikato District at which drink-driving crashes occurred during the 2002 to 2006 period.

Waikato District
SH 1, 240m north of Fox Road
Driver Road, 700m west of Kainui Road
Te Ohaki Road, 8500m north of Harris Street
SH 1 / Fletcher Street intersection

The following table illustrates the licence status of at fault drivers in alcohol related crashes in Waikato District and all New Zealand (2006).

Driver licence status, alcohol related injury crashes, at fault drivers in the Waikato District	Percentage of total at fault drivers in alcohol related crashes (NZ value in brackets)
Full	42.3 (41.6) percent
Learner	7.7 (15.8) percent
Restricted	30.8 (20.8) percent
Never licenced	3.8 (4.6) percent
Disqualified	7.7 (6.2) percent
Overseas	0 (1.0) percent
Expired	0 (1.4) percent
Other / unknown	7.7 (8.2) percent

Further facts about alcohol related crashes in the Waikato District (divided into local roads and Transit roads) (2002 -2006)

Local roads

- 16 deaths, 29 serious injuries, 71 minor injuries
- Male driver 78 percent
- Most common crash type Bend – (lost control/head on)
- 85 percent at midblock
- 28 percent urban
- 27 percent wet road
- 71 percent night time
- Worst month September, best June
- Worst day of week Friday, best Wednesday

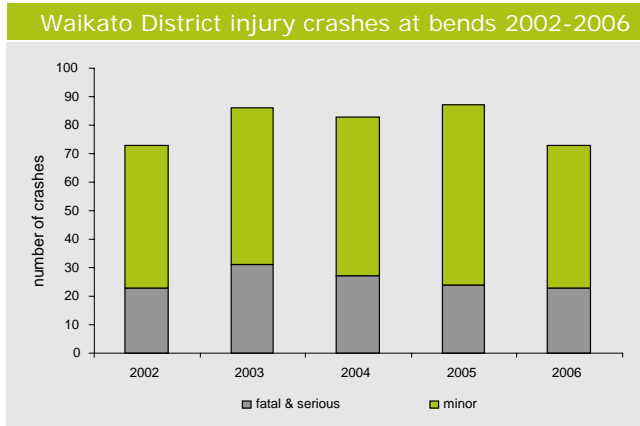
Transit roads

- 12 deaths, 38 serious injuries, 76 minor injuries
- Male drivers 82 percent
- Most common crash type Bend – (lost control/head on)
- 83 percent at midblock
- 21 percent urban
- 39 percent wet road
- 60 percent night time
- Worst month May, best September
- Worst day of week Sunday, best Monday

Crashes at bends

Between 2002 and 2006 41 percent of all injury crashes in Waikato District occurred at bends. These crashes resulted in 36 fatalities, 126 serious injuries and 399 minor injuries.

Crash numbers have remained fairly constant for the past 5 years.



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 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 three most common roadside hazards struck in injury crashes in Waikato District were fences (104), banks (74) and ditches (56) from a total of 411 objects struck.

The following table lists the main characteristics of these crashes.

Crash characteristic	Crashes
Single vehicle	75 percent
Alcohol	19 percent
Excessive speed for the conditions	39 percent
Road factors	35 percent
Poor handling	39 percent
Rural road	89 percent
Wet road	40 percent
Night time	35 percent

The following table illustrates the licence status of at fault drivers for crashes occurring at bends in Waikato District and all New Zealand (2006).

Driver licence status, bend related injury crashes, at fault drivers in the Waikato District	Percentage of total at fault drivers in bend related crashes (NZ value in brackets)
Full	52.0 (51.1) percent
Learner	11.6 (10.7) percent
Restricted	15.1 (17.9) percent
Never licenced	3.1 (4.1) percent
Disqualified	3.5 (2.8) percent
Overseas	3.8 (5.6) percent
Expired	1.2 (0.9) percent
Other / unknown	9.8 (6.8) percent

Further information about crashes on bends in Waikato District:

Local roads

- 13 deaths, 54 serious injuries, 229 minor injuries
- Male drivers 73 percent
- Most common crash type - lost control/head on
- Most common age group 20 - 24
- 21 percent alcohol over limit
- Worst month May, best July
- Worst day of week Sunday, best Wednesday

Transit roads

- 23 deaths, 72 serious injuries, 170 minor injuries
- Male drivers 75 percent
- Most common crash type - lost control/head on
- Most common age group 30 - 39
- 18 percent over alcohol limit
- Worst month October, best February
- Worst day of week Sunday, best Thursday

Road factors

A safe road environment incorporates numerous design principles, appropriate geometric design standards, good delineation under all conditions, adequate surface skid resistance and a roadside free of unforgiving hazards. It should also serve the safety needs of all vehicles and road users.

Road factors that contribute to crashes include those that affect the way a driver reacts to the driving conditions, such as:

- a slippery road surface
- obstructions on the road, such as slips
- limited visibility
- signs, signals and/or road markings being damaged or in poor condition.

Nationally, road factors were a contributing factor in 12 percent of injury crashes in 2006, with slippery road surfaces being the key factor.

In the Waikato District, road factors were a factor in 16 percent of injury crashes in 2006, an increase from 2005.

There were 141 road factor related injury crashes reported in the last five years.

Road factors were predominantly a rural issue in the Waikato District in 2006 (rural is defined as an area with a speed limit of 80km/h or more).

Road factor related injury crashes	2002	2003	2004	2005	2006
Urban	4	5	3	0	4
Rural	25	23	25	24	28
Total	29	28	28	24	32

Key locations

The following provides a list of the key locations at which road factor crashes occurred during the 2002 to 2006 period.

Waikato District
SH 1B / Tauwhare Road intersection
Waverley Road / Seddon Road intersection
SH 21 at Narrows Bridge

The following table shows various road factors involved in injury crashes for the Waikato District during the period 2002-2006.

Number of occasions Police reported this factor 2002 to 2006	Local road	Transit road
	Slippery road	53
Road surface in poor condition	26	17
Road obstructed	5	2
Visibility limited	15	10
Signs or signals (needed or faulty)	7	1
Markings (needed or faulty)	-	2

Further facts about road factor related crashes in the Waikato District (2002 -2006) by local and Transit roads.

Local roads

- 3 deaths, 14 serious injuries, 97 minor injuries
- Most common crash type Bend - (lost control/head on)
- 18 percent at intersections
- 15 percent urban
- 62 percent wet road
- 27 percent night time
- Worst month May, best September

Transit roads

- 3 deaths, 23 serious injuries, 62 minor injuries
- Most common crash type Bend - (lost control/head on)
- 14 percent at intersections
- 5 percent urban
- 59 percent wet road
- 27 percent night time
- Worst month April, best September

Partnerships

Land Transport NZ works closely with many road safety partners at national, regional and local levels. These include government departments, enforcement agencies, territorial local authorities, health authorities and local service providers.

Some of the key road safety partners in the Waikato District include:

New Zealand Police

Waikato District Road Policing Manager
Inspector Leo Tooman
PO Box 3078
Hamilton
Phone 07 850 7063

Road Safety Co-ordinator

Waikato
Megan Jolly
1 Galbraith Avenue
Hamilton
Phone 07 850 5059

Local Authority Engineers

Waikato District Council
Tony Peake
Private Bag 544
Hamilton
Phone 07 824 8633

Accident Compensation Corporation

Waikato Area
ACC Injury Prevention Consultant
Lisa Taylor
PO Box 952
Hamilton
Phone 07 957 5826

Transit New Zealand Area Engineer

Gerhard Van Blerk
PO Box 973
Hamilton
Phone 07 957 5826

Contacts

Land Transport New Zealand

Rosalie Orr
Partnership Manager - Midlands
See contact details at end.

Andrew McKillop
Manager Programmes – Waikato/Bay of Plenty/Taranaki
See contact details at end.



Midland Regional Office

183 Collingwood Street
Private Bag 3081
HAMILTON

Telephone 07 958 7840
Fax 07 958 7866

www.landtransport.govt.nz