



briefing notes - road safety issues

East Waikato

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 East Waikato area.

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

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 East Waikato area 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.

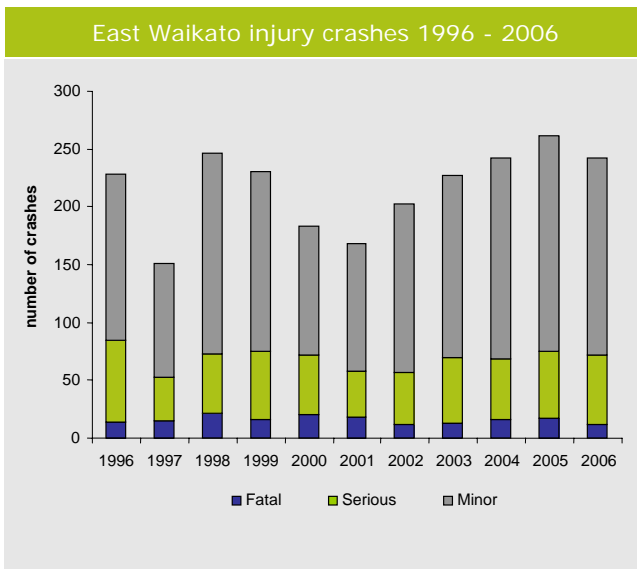
Major Road Safety Issues		2006 road trauma	
East Waikato		Casualties	
Intersections		Deaths	15
Alcohol		Serious casualties	75
Speed		Minor casualties	268
Bends – Loss of Control			
Nationally		Crashes	
Speed		Fatal crashes	12
Alcohol		Serious injury crashes	60
Failure to give way		Minor injury crashes	170
Restraints		Non-injury crashes	508

Overview of 2006

In 2006 on local roads in the East Waikato area there were 93 injury crashes and 190 non-injury crashes; in addition there were 149 injury crashes and 318 non-injury crashes on State Highways, as reported by the New Zealand Police.

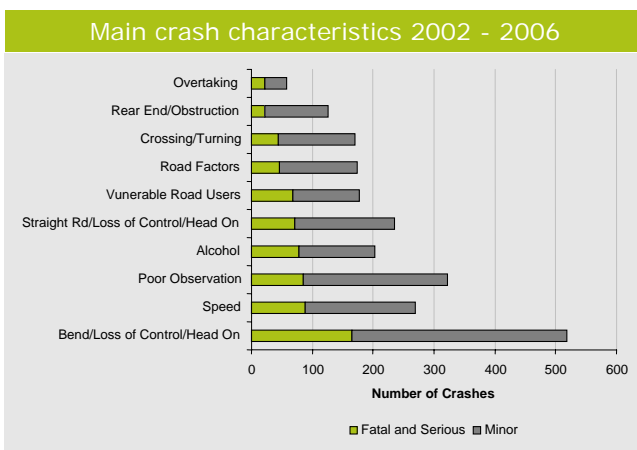
The table below shows the number of injuries resulting from 2006 crashes by rural or urban areas for both local and Transit roads (rural is defined as an area with a speed limit of 80km/h or more).

	Fatalities	Serious injuries	Minor injuries	Total
Rural	13	63	200	276
Urban	2	12	68	82
Total	15	75	268	358



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

Serious injuries on the other hand fell between 1999 and 2001 but now seem to be steady.



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

- Worst month November (32), best September (17)
- Worst day Friday (47), best Tuesday (31)
- Wet road 25 percent
- Night time 35 percent
- Midblock 67 percent
- 69 percent of at fault drivers are male (injury crashes)
- 67 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 January (59), best May (26)
- Worst day Sunday (77), best Tuesday (47)
- Wet road 34 percent
- Night time 28 percent
- Midblock 76 percent
- 67 percent of at fault drivers are male (injury crashes)
- 60 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 East Waikato area with only 61 percent of at fault drivers in injury crashes being the holder of a full driving licence.

Driver licence status (injury crashes, at fault drivers East Waikato area roads)	Percentage of total at fault drivers (NZ value in brackets)
Full	61.3 (58.4) %
Learner	7.5 (9.5) %
Restricted	20.8 (17.6) %
Never Licenced	1.4 (2.2) %
Disqualified	0.5 (1.7) %
Overseas	2.8 (4.2) %
Expired	0 (0.5) %
Other / unknown	5.7 (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 East Waikato area, excessive speed was a factor in 23 percent of injury crashes in 2006

Speed related injury crashes	2002	2003	2004	2005	2006
Urban	18	11	5	16	6
Rural	29	40	49	39	56
Total	47	51	54	55	62

There were 269 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 76 percent of drivers

Drivers at fault or part fault in speed related injury crashes (2002-2006) *	Male	Female	Total
15- 19 years	56	20	76
20 - 24	33	19	52
25 - 29	23	2	25
30 - 39	39	14	53
40 - 49	28	5	33
50 - 59	12	1	13
60 - 69	8	4	12
70+	2	0	2
Total	201	65	266

* (note ranges are not equal)

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

Driver licence status, speed related injury crashes, at fault drivers in the East Waikato area	Percentage of total at fault drivers in speed related crashes (NZ value in brackets)
Full	44.3 (43.0) percent
Learner	14.8 (15.3) percent
Restricted	31.1 (22.5) percent
Never Licenced	1.6 (4.5) percent
Disqualified	0 (4.1) percent
Overseas	3.2 (3.7) percent
Expired	0 (0.5) percent
Other / unknown	4.9 (6.2) percent

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

Local roads

- 7 deaths, 32 serious injuries, 116 minor injuries
- Male drivers 77 percent
- Most common crash type Bend – (lost control/head on)
- 76 percent at midblock
- 30 percent wet road
- 43 percent night time
- Worst month January, best September
- Worst day of week Friday, best Monday

Transit roads

- 17 deaths, 52 serious injuries, 197 minor injuries
- Male 75 percent
- Most common crash type Bend – (lost control/head on)
- 87 percent midblock
- 46 percent wet road
- 37 percent night time
- Worst month November, best September
- Worst day Sunday, best Tuesday

Intersections

Crashes at intersections are the most common type in urban areas of the East Waikato area.

During the five year period 2002 to 2006 there were 286 injury crashes at intersections and 676 non-injury crashes. In these 15 people died, 75 received serious injuries and 352 received minor injuries.

Intersection crashes	2002	2003	2004	2005	2006
Injury crash	48	63	65	55	55
Non-injury crash	99	142	142	146	147
Total	147	205	207	201	202

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

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
SH 25 / SH 26	19	9	1
SH 2 / SH 25	18	7	3
SH 26 / Piako Road	14	1	6
SH 27 / Hinuera Road	13	3	1
MacKay Street / Richmond Street	13	2	7

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

Junction type	Rural	Urban
Roundabout	3	27
Tee	229	306
Cross (X)	80	223
Y	21	33
Other (includes driveways)	12	27

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

- Not checking properly
- Failure to stop and give way
- Alcohol

Intersections present most drivers with one of their biggest driving challenges and as a result less experienced drivers are highly 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 the East Waikato area	Percentage of total at fault drivers in intersection related crashes (NZ value in brackets)
Full	62.8 (60.9) %
Learner	10.0 (9.4) %
Restricted	11.9 (14.8) %
Never Licenced	1.8 (2.5) %
Disqualified	2.2 (1.6) %
Overseas	4.5 (3.7) %
Expired	1.1 (0.8) %
Other / unknown	5.6 (6.3) %

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

Local roads

- 5 deaths, 26 serious injuries, 135 minor injuries
- 63 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 21 percent alcohol over limit
- 60 percent urban
- 16 percent wet roads
- 28 percent night time
- Worst month December, best October
- Worst day of week Friday, best Monday

Transit roads

- 10 deaths, 49 serious injuries, 217 minor injuries
- 67 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 15 percent alcohol over limit
- 49 percent urban
- 21 percent wet roads
- 31 percent night time
- Worst month December, best June
- Worst day of week Sunday, best Tuesday

Drink-driving

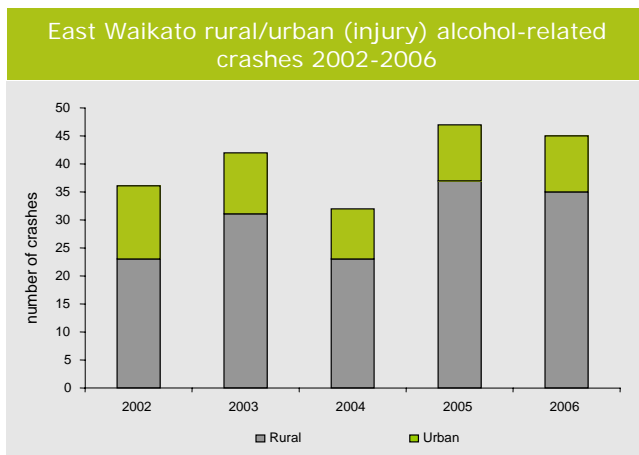
Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

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 East Waikato area alcohol was a factor in 19 percent of injury crashes in 2006, an increase from 2005, and increasing in line with the national trend.

There were 202 alcohol-related injury crashes reported in the last five years.



Key locations

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

East Waikato
SH 25, 500m north of Tiki Quarry Road
SH 26, 200m south of Hubbard Road
SH 26 / Mill Road intersection
SH 26, 200m south of Miles Road
SH 2, 80m north of Fisher Road

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

Driver licence status, alcohol related injury crashes, at fault drivers in the East Waikato area	Percentage of total at fault drivers in alcohol related crashes (NZ value in brackets)
Full	56.8 (41.6) percent
Learner	11.4 (15.8) percent
Restricted	20.5 (20.8) percent
Never Licenced	2.3 (4.6) percent
Disqualified	0 (6.2) percent
Overseas	0 (1.0) percent
Expired	0 (1.4) percent
Other / unknown	9.1 (8.2) percent

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

Local roads

- 7 deaths, 29 serious injuries, 93 minor injuries
- Male driver 86 percent
- Most common crash type, Bend – (lost control/head on)
- 29 percent at intersections
- 39 percent urban
- 23 percent wet road
- 84 percent night time
- Worst month December, best October
- Worst day of week Friday, best Monday

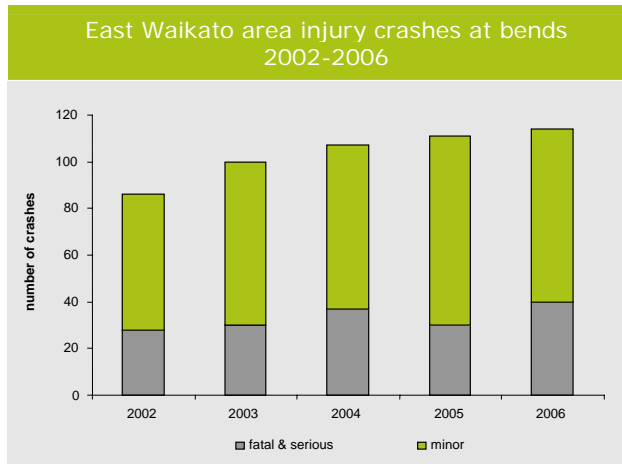
Transit roads

- 12 deaths, 41 serious injuries, 107 minor injuries
- Male drivers 76 percent
- Most common crash type, Bend – (lost control/head on)
- 22 percent at intersections
- 17 percent urban
- 27 percent wet road
- 71 percent night time
- Worst month November, best December
- Worst day of week Saturday, best Monday

Crashes at bends

Between 2002 and 2006, 44 percent of all injury crashes in East Waikato area occurred at bends. These crashes resulted in 46 fatalities, 165 serious injuries and 538 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 East Waikato area were banks (118), fences (89) and ditches (69) from a total of 488 objects struck.

The following table lists the main characteristics of these crashes.

Crash characteristic	Crashes
Single vehicle	75 percent
Alcohol	22 percent
Excessive speed for the conditions	52 percent
Road factors	24 percent
Poor handling	28 percent
Rural road	86 percent
Wet road	40 percent
Night time	64 percent

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

Driver licence status, bend related injury crashes, at fault drivers in the East Waikato area	Percentage of total at fault drivers in bend related crashes (NZ value in brackets)
Full	57.7 (51.1) percent
Learner	8.9 (10.7) percent
Restricted	15.9 (17.9) percent
Never Licenced	3.0 (4.1) percent
Disqualified	1.2 (2.8) percent
Overseas	5.2 (5.6) percent
Expired	1.0 (0.9) percent
Other / unknown	7.1 (6.8) percent

Further information about crashes on bends in East Waikato area:

Local roads

- 6 deaths, 40 serious injuries, 161 minor injuries
- Male drivers 75 percent
- Most common crash type, lost control/head on
- Most common age group 15 - 19
- 33 percent alcohol over limit
- Worst month January, best October
- Worst day of week Friday, best Monday

Transit roads

- 40 deaths, 125 serious injuries, 377 minor injuries
- Male drivers 71 percent
- Most common crash type, lost control/head on
- Most common age group 40 - 49
- 19 percent over alcohol limit
- Worst month January, best July
- Worst day of week Sunday, best Tuesday

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 East Waikato area, road factors were a factor in 15 percent of injury crashes in 2006, an increase from 2005.

There were 174 road factor related injury crashes reported in the last five years.

Road factors were predominantly a rural issue in the East Waikato area 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	6	4	2	6	7
Rural	22	26	42	25	34
Total	28	30	44	31	41

Key locations

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

East Waikato area
SH 27, 50m south of Mangawhero Road
SH 26 / SH 27 intersection
SH 2 / Waitawheta Road intersection

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

Number of occasions Police reported this factor 2002 to 2006 in the East Waikato area	Local road	Transit road
	Slippery road	35
Road surface in poor condition	13	27
Road obstructed	-	2
Visibility limited	11	13
Signs or signals (needed or faulty)	1	-
Markings (needed or faulty)	1	1
Street lighting	2	1

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

Local roads

- 2 deaths, 16 serious injuries, 58 minor injuries
- Most common crash type, Bend – (lost control/head on)
- 23 percent at intersections
- 32 percent urban
- 49 percent wet road
- 20 percent night time
- Worst month December, best May
- Worst day of week Wednesday, best Thursday

Transit roads

- 4 deaths, 35 serious injuries, 135 minor injuries
- Most common crash type, Bend - (lost control/head on)
- 8 percent at intersections
- 6 percent urban
- 72 percent wet road
- 36 percent night time
- Worst month December, best May
- Worst day of week Saturday, best Tuesday

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 East Waikato area include:

New Zealand Police

Waikato District Road Policing Manager
Inspector Leo Tooman
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Road Safety Co-ordinator

East Waikato Area
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