



# *briefing notes - road safety issues*

## *Western Bay of Plenty and Tauranga*

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 Western Bay of Plenty and Tauranga area.

This report is the eighth road safety report for the Western Bay of Plenty and Tauranga area. The data in this report applies to local roads and State Highways in the Western Bay of Plenty and Tauranga 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 Western Bay of Plenty and Tauranga 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.

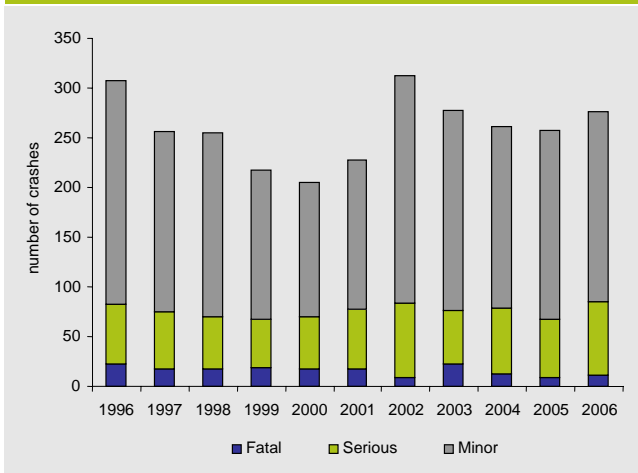
<b>Major Road Safety Issues</b>		<b>2006 road trauma</b>	
<b>Western Bay of Plenty and Tauranga</b>		<b>Casualties</b>	
Intersections		Deaths	14
Alcohol		Serious casualties	95
Speed		Minor casualties	280
Bends – Loss of Control			
<b>Nationally</b>		<b>Crashes</b>	
Speed		Fatal crashes	11
Alcohol		Serious injury crashes	75
Failure to give way		Minor injury crashes	191
Restraints		Non-injury crashes	977

## Overview of 2006

In 2006 on local roads in Western Bay of Plenty and Tauranga Districts there were 154 injury crashes and 617 non-injury crashes, in addition there were 121 injury crashes and 360 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).

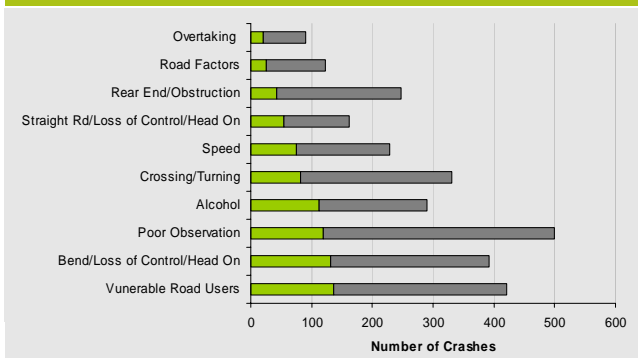
	Fatalities	Serious injuries	Minor injuries	Total
Rural	12	53	115	180
Urban	2	42	165	209
Total	14	95	280	389

Western Bay of Plenty and Tauranga injury crashes 2002 - 2006



Fatalities in the district have been fluctuating over the last 10 years. Serious injuries on the other hand have remained steady between 1996 and 1999 but now seem to be fluctuating.

Main crash characteristics 2002 - 2006



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

- Worst month June, best March
- Worst day Saturday, best Sunday
- Wet road 17 percent
- Night time 31 percent
- Mid block 59 percent
- 68 percent of at fault drivers are male (injury crashes)
- 57 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 March and May best October
- Worst day Saturday, best Wednesday
- Wet road 21 percent
- Night time 34 percent
- Mid block 60 percent
- 74 percent of at fault drivers are male (injury crashes)
- 65 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 Western Bay of Plenty and Tauranga 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 all Western Bay of Plenty and Tauranga roads)	Percentage of total at fault drivers (NZ value in brackets)
Full	60.9 (58.4) %
Learner	9.4 (9.5) %
Restricted	16.2 (17.6) %
Never Licenced	0.9 (2.2) %
Disqualified	3 (1.7) %
Overseas	1.7 (4.2) %
Expired	0.4 (0.5) %
Other / unknown	7.7 (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 Western Bay of Plenty and Tauranga Districts, excessive speed was a factor in 17 percent of injury crashes in 2006.

Speed related injury crashes	2002	2003	2004	2005	2006
Urban	23	24	23	24	19
Rural	19	24	31	13	28
Total	42	28	54	37	47

There were 228 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 73 percent of drivers

Drivers at fault or part fault in speed related injury crashes (2002-2006) *	Male	Female	Total
	15- 19 years	55	25
20 - 24	40	12	<b>52</b>
25 - 29	21	4	<b>25</b>
30 - 39	21	3	<b>24</b>
40 - 49	19	9	<b>28</b>
50 - 59	7	3	<b>10</b>
60 - 69	3	4	<b>7</b>
70+	0	1	<b>1</b>
<b>Total</b>	<b>166</b>	<b>61</b>	<b>227</b>

\* (note ranges are not equal)

The following table illustrates the licence status of at fault drivers in speed related crashes in Western Bay of Plenty and Tauranga and all New Zealand (2006).

Driver licence status, speed related injury crashes, at fault drivers in Western Bay of Plenty and Tauranga	Percentage of total at fault drivers in speed related crashes (NZ value in brackets)
Full	47.8 (43.0) percent
Learner	13 (15.3) percent
Restricted	26.1 (22.5) percent
Never Licenced	0 (4.5) percent
Disqualified	4.3 (4.1) percent
Overseas	0 (3.7) percent
Expired	2.2 (0.5) percent
Other / unknown	6.5 (6.2) percent

Further facts about speed related crashes in Western Bay of Plenty and Tauranga (divided into local roads and Transit roads) (2002 -2006)

### Local roads

- 6 deaths, 38 serious injuries, 168 minor injuries
- Male drivers 73 percent
- Most common crash type, Bend – (lost control/head on)
- 69 percent at midblock
- 24 percent wet road
- 57 percent night time
- Worst month February, best July
- Worst day of week Saturday, best Tuesday

### Transit roads

- 14 deaths, 55 serious injuries, 108 minor injuries
- Male 74 percent
- Most common crash type, Bend – (lost control/head on)
- 79 percent at midblock
- 38 percent wet road
- 62 percent night time
- Worst month July, best August
- Worst day Saturday, best Wednesday

## Intersections

Crashes at intersections are the most common crash type in urban areas of the Western Bay of Plenty and Tauranga Districts.

During the five year period 2002 to 2006 there were 536 injury crashes at intersections and 2094 non-injury crashes. In these 5 people died, 136 received serious injuries and 582 received minor injuries.

Intersection crashes	2002	2003	2004	2005	2006
Injury crash	137	100	95	104	100
Non-injury crash	353	450	455	426	410
Total	490	550	450	530	510

The table below shows the locations of the five intersections with the highest number of crashes in Western Bay of Plenty and Tauranga between 2002 and 2006.

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
Domain Road	53	14	6
Maunganui Road	41	1	2
Totara St	35	2	13
Welcome Bay Road	33	2	9
Eleventh Avenue	28	9	3

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

Junction type	Rural	Urban
Roundabout	31	593
Tee	273	975
Cross (X)	50	531
Y	19	40
Other (includes driveways)	47	97

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 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 the Western Bay of Plenty and Tauranga	Percentage of total at fault drivers in intersection related crashes (NZ value in brackets)
Full	62.4 (60.9) %
Learner	10.6 (9.4) %
Restricted	13.2 (14.8) %
Never Licenced	1.4 (2.5) %
Disqualified	2.4 (1.6) %
Overseas	2.2 (3.7) %
Expired	0.4 (0.8) %
Other / unknown	7.5 (6.3) %

Further facts about Intersection related crashes in the Western Bay of Plenty and Tauranga 2002 to 2006 (divided into local roads and Transit roads):

### Local roads

- 2 deaths, 80 serious injuries, 352 minor injuries
- 61 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 21 percent alcohol over limit
- 92 percent urban
- 18 percent wet roads
- 30 percent night time
- Worst month May, best March
- Worst day of week Saturday, best Tuesday, Wednesday

### Transit roads

- 3 deaths, 56 serious injuries, 230 minor injuries
- 65 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 12 percent alcohol over limit
- 50 percent urban
- 79 percent wet roads
- 26 percent night time
- Worst month June, best March
- Worst day of week Friday, best Sunday

## Drink-driving

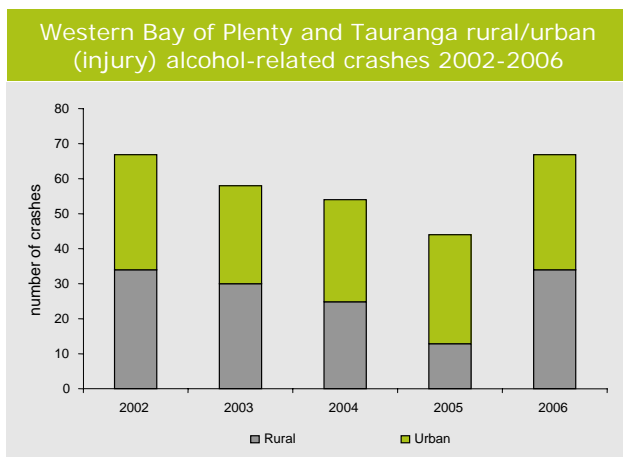
Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

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 Western Bay of Plenty and Tauranga Districts, alcohol was a factor in 24 percent of injury crashes in 2006, an increase from 2005, and increasing in line with the national trend.

There were 290 alcohol-related injury crashes reported in the last five years.



## Key locations

The following provides a breakdown of the key locations in Western Bay of Plenty and Tauranga at which drink-driving crashes occurred during the 2002 to 2006 period.

Western Bay of Plenty and Tauranga
Cameron Road / Eleventh Avenue intersection
Henderson Crescent East / Alverstoke Road intersection
Cameron Road / Kauri Street intersection
SH 29, 100m west of Belk Road

The following table illustrates the licence status of at fault drivers in alcohol related crashes in Western Bay of Plenty and Tauranga and all New Zealand (2006).

Driver licence status, alcohol related injury crashes, at fault drivers in the Western Bay of Plenty and Tauranga	Percentage of total at fault drivers in alcohol related crashes (NZ value in brackets)
Full	38.7 (41.6) percent
Learner	12.9 (15.8) percent
Restricted	19.4 (20.8) percent
Never Licenced	0 (4.6) percent
Disqualified	9.7 (6.2) percent
Overseas	3.2 (1.0) percent
Expired	3.2 (1.4) percent
Other / unknown	12.9 (8.2) percent

Further facts about alcohol related crashes in Western Bay of Plenty and Tauranga (divided into local roads and Transit roads) (2002 -2006)

### Local roads

- 1 deaths, 15 serious injuries 51 minor injuries
- Male driver 77 percent
- Most common crash type, Bend – (lost control/head on)
- 32 percent at intersections
- 68 percent urban
- 15 percent wet road
- 78 percent night time
- Worst month May, best February
- Worst day of week Saturday, best Tuesday

### Transit roads

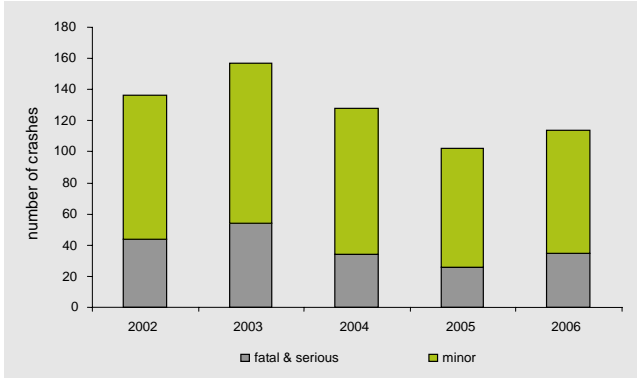
- 4 deaths, 15 serious injuries 23 minor injuries
- Male drivers 100 percent
- Most common crash type, Bend – (lost control/head on)
- 19 percent at intersections
- 19 percent urban
- 27 percent wet road
- 85 percent night time
- Worst month January, best May
- Worst day of week Saturday, best Tuesday

## Crashes at bends

Between 2002 and 2006, 28 percent of all injury crashes in the Western Bay of Plenty and Tauranga area occurred at bends. These crashes resulted in 42 fatalities, 152 serious injuries and 444 minor injuries.

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

Western Bay of Plenty and Tauranga injury crashes at bends 2002-2006



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 Western Bay of Plenty and Tauranga were banks (72), fences (70) and trees (50) from a total of 520 objects struck.

The following table lists the main characteristics of these crashes.

Crash characteristic	Crashes
Single vehicle	67 percent
Alcohol	37 percent
Excessive speed for the conditions	40 percent
Road factors	14 percent
Poor handling	27 percent
rural road	64 percent
Wet road	26 percent
Night time	53 percent

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

Driver licence status, bend related injury crashes, at fault drivers in the Western Bay of Plenty and Tauranga area	Percentage of total at fault drivers in bend related crashes (NZ value in brackets)
Full	48.8 (51.1) percent
Learner	11.2 (10.7) percent
Restricted	19.0 (17.9) percent
Never Licenced	2.9 (4.1) percent
Disqualified	4.7 (2.8) percent
Overseas	2.3 (5.6) percent
Expired	1.3 (0.9) percent
Other / unknown	9.9 (6.8) percent

Further information about crashes on bends in Western Bay of Plenty and Tauranga:

### Local roads

- 5 deaths, 62 serious injuries, 243 minor injuries
- Male drivers 69.5 percent
- Most common crash type, Bend – (lost control/head on)
- Most common age group 15-19 years
- 43 percent alcohol over limit
- Worst month February, best June
- Worst day of week Saturday, best Tuesday and Wednesday

### Transit roads

- 37 deaths, 90 serious injuries, 201 minor injuries
- Male drivers 75.8 percent
- Most common crash type, Bend – (lost control/head on)
- Most common age group 15-19 years
- 33 percent over alcohol limit
- Worst month December, best May, August and October
- Worst day of week Saturday, best Tuesday

## Vulnerable road users

Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore susceptible to severe injuries.

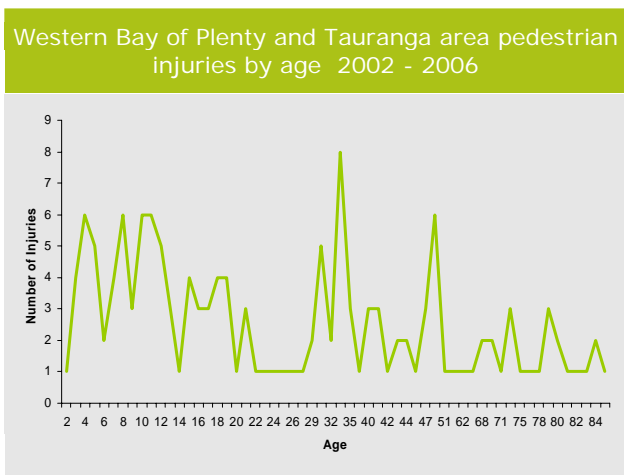
### Pedestrians

Although pedestrian injuries do not feature highly in the total road injury picture in Western Bay of Plenty and Tauranga Districts, representing only 8 percent of all injuries, they make up 14 percent of all fatalities.

Pedestrian injuries	2002	2003	2004	2005	2006
Fatal	2	3	3	1	2
Serious	11	7	4	12	9
Minor	20	33	20	21	12
Total	33	43	27	34	23

Most (52 percent) pedestrian crashes occur on urban roads away from intersections and during daylight hours.

There is a very strong bias toward the afternoon.



Young people are the most commonly injured in pedestrian crashes. This may be because they walk more than other age groups. However many of them may not be mature enough to make the correct road crossing decisions. For example young children have difficulty in judging the speed and distance of approaching vehicles. They are also easily distracted and unable to focus on multiple events at a time, so when they want to cross a road their attention can be easily distracted by say, a friend shouting out from across the street, a dog coming towards them or a noisy car passing by.

Road designers and motorists alike need to understand that children do not think like “mini adults” when they are walking and playing near the road. The road environment needs to be made as safe as possible to mitigate against the unpredictable actions that children take.

The recent decision by Police to enforce a lower speed tolerance around schools is a strong step in creating a safer lower speed environment for young pedestrians.

Pedestrian crashes are concentrated on arterial and collector roads. The top five locations (on the basis of fatal and serious injuries) are shown in the table below.

Location	Number of pedestrian injury crashes
Cameron Rd between Chadwick Rd and Cornwall St	3
Otumoetai Rd/Bellevue Rd intersection	3
Cameron Rd between 10th and 11th Ave	4
Fraser St between Oxford St and Knesteven Ave	3

Further information regarding 2002 -2006 pedestrian injury crashes:

#### Local roads

- The most common crash type was for a pedestrian crossing the road being hit by a driver approaching from their right (58 percent).
- Worst month May, best April and November
- Worst day of week Thursday, best Sunday
- Number of at fault drivers 41

#### Transit roads

- The most common crash type was for a pedestrian crossing the road being hit by a driver approaching from their right (52 percent).
- Worst month September, best October
- Worst day of week Friday, best Tuesday
- Number of at fault drivers 5



## 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 Western Bay of Plenty/Tauranga area include:

### **New Zealand Police**

Bay of Plenty District Road Policing Manager  
Kevin Taylor  
PO Box 741  
Rotorua  
Phone 07 349 9554

### **Road Safety Co-ordinator**

Western Bay of Plenty/Tauranga  
Lynette Hines  
PO Box 1121  
Tauranga  
Phone 07 576 3280

### **Local Authority Engineers**

Western Bay of Plenty District Council  
Alex Finn  
Private Bag 12803  
Tauranga  
Phone 07 571 8008

Tauranga City Council  
Martin Parkes  
Private Bag 12022  
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Phone 07 577 7185

### **Accident Compensation Corporation**

Western Bay of Plenty/Tauranga Area  
ACC Injury Prevention Consultant  
Carole Fleming  
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### **Transit New Zealand Area Engineer**

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