

# briefing notes - road safety issues

# **New Plymouth**

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 New Plymouth district.

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

<b>Major Road Safety Issues</b>	2006 road trauma	
New Plymouth	Casualties	
Intersections	Deaths	7
Alcohol	Serious casualties	34
Speed	Minor casualties	251
Crashes at bends		

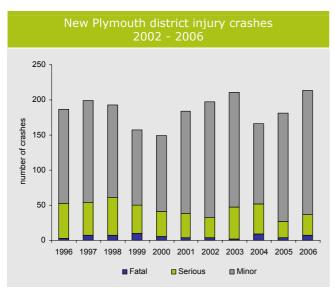
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Nationally	Crashes	
Speed	Fatal crashes	7
Alcohol	Serious injury crashes	30
Failure to give way	Minor injury crashes	176
Restraints	Non-injury crashes	409

# **Overview of 2006**

In 2006 on local roads in the New Plymouth district there were 95 injury crashes and 189 non-injury crashes, in addition there were 118 injury crashes and 220 non-injury crashes on State Highways, as reported by the New Zealand Police.

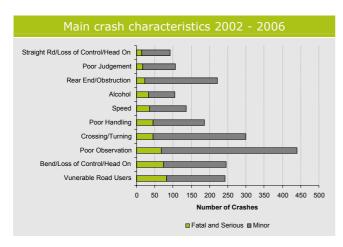
The table below shows the number of injuries resulting from 2006 crashes by rural or urban areas for both local and Transit roads (rural is defined as an area with a speed limit of 80km/h or more).

	Fatalities	Serious injuries	Minor injuries	Total
Rural	6	21	101	128
Urban	1	13	150	164
Total	7	34	251	292



Fatalities in the district fell between 1999 and 2003 and have fluctuated over the last 3 years.

Serious injuries also fell between 1998 and 2002 and have fluctuated over the last few years



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

- Worst month October, best July
- Worst day Thursday, best Monday
- · Wet road 23 percent
- Night time 34 percent
- Mid block 58 percent
- 60 percent of at fault drivers are male (injury crashes)
- 45 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, best August
- Worst day Tuesday, best Monday
- Wet road 27 percent
- Night time 30 percent
- Mid block 53 percent
- 67 percent of at fault drivers are male (injury crashes)
- 62 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 the New Plymouth district with only 54 percent of at fault drivers in injury crashes being the holder of a full driving licence.

Driver licence status	Percentage of total
(injury crashes, at fault	at fault drivers (NZ
drivers all New Plymouth	value in brackets)
district roads)	
Full	54.2 (58.4) %
Learner	10.4 (9.5) %
Restricted	23.1 (17.6) %
Never Licenced	2.3 (2.2) %
Disqualified	1.4 (1.7) %
Overseas	1.4 (4.2) %
Expired	0.9 (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 New Plymouth district, excessive speed was a factor in 15 percent of injury crashes in 2006.

Speed related injury crashes	2002	2003	2004	2005	2006
Urban	8	17	12	17	14
Rural	4	16	20	11	17
Total	12	33	32	28	31

There were 136 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 70 percent of drivers

Drivers at fault or part fault in seed related injury crashes (2002-2006) *	Male	Female	Total
15- 19 years	37	21	58
20 - 24	21	8	29
25 - 29	27	10	37
30 - 39	2	1	3
40 - 49	4	2	6
50 - 59	1	0	1
60 - 69	1	0	1
70+	6	1	7
Total	99	43	142

<sup>\* (</sup>note ranges are not equal)

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

Driver licence status, speed related injury crashes, at fault drivers in New Plymouth district	Percentage of total at fault drivers in speed related crashes (NZ value in brackets)
Full	27.6 (43.0) percent
Learner	13.8 (15.3) percent
Restricted	37.9 (22.5) percent
Never Licenced	6.9 (4.5) percent
Disqualified	6.9 (4.1) percent
Overseas	0 (3.7) percent
Expired	0 (0.5) percent
Other / unknown	6.9 (6.2) percent

Further facts about speed related crashes in New Plymouth district (divided into local roads and Transit roads) (2002 -2006)

#### Local roads

- 3 deaths, 21 serious injuries, 111 minor injuries
- Male drivers 79 percent
- Most common crash type, Bend (lost control/head on)
- 61 percent at midblock
- 28 percent wet road
- 42 percent night time
- Worst month March, best February
- Worst day of week Friday, best Monday

- 3 deaths, 18 serious injuries, 53 minor injuries
- Male 57 percent
- Most common crash type, Bend (lost control/head on)
- 73 percent at midblock
- 47 percent wet road
- 42 percent night time
- Worst month September, best August
- Worst day Thursday, best Tuesday

# **Intersections**

Crashes at intersections are the most common crash type in urban areas of the New Plymouth district.

During the five year period 2002 to 2006 there were 446 injury crashes at intersections and 881 non-injury crashes. In these 11 people died, 74 received serious injuries and 539 received minor injuries.

Intersection crashes	2002	2003	2004	2005	2006
Injury crash	96	103	72	85	90
Non-injury crash	186	158	162	187	188
Total	282	261	234	272	278

The table below shows the locations of the five intersections with the highest number of crashes in the New Plymouth district between 2002 and 2006.

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
SH 3 / Mangati Rd	32	15	3
SH 3 / SH 45	25	9	7
SH 3 / Mangorei Rd	24	7	3
SH 3 / Princess St	21	8	6
SH 3 / Smart Rd	20	8	4

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

Junction type	Rural	Urban
Roundabout	-	12
Tee	150	390
Cross (X)	77	617
Υ	8	37
Other (includes driveways)	3	29

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

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

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,	Percentage of total
intersection related injury	at fault drivers in
crashes, at fault drivers in	intersection related
the New Plymouth district	crashes (NZ value in
2002-2006	brackets)
Full	61.9 (60.9) %
Learner	10.9 (9.4) %
Restricted	16.9 (14.8) %
Never Licenced	1.3 (2.5) %
Disqualified	1.3 (1.6) %
Overseas	1.6 (3.7) %
Expired	1.3 (0.8) %
Other / unknown	4.7 (6.3) %

Further facts about Intersection related crashes in the New Plymouth district 2002 to 2006 (divided into local roads and Transit roads):

#### Local roads

- 4 deaths, 37 serious injuries, 211 minor injuries
- 62 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 14 percent alcohol over limit
- 94 percent urban
- 27 percent wet roads
- 27 percent night time
- Worst month March, best January
- Worst day of week Wednesday, best Sunday

- 7 deaths, 37 serious injuries, 328 minor injuries
- 65 percent of at fault drivers are male
- Most common crash type, crossing/turning
- 6 percent alcohol over limit
- 74 percent urban
- 26 percent wet roads
- 23 percent night time
- Worst month July, best September
- Worst day of week Thursday, best Sunday

# **Drink-driving**

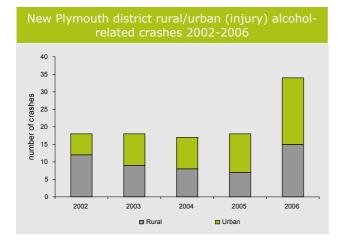
Alcohol effects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

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 New Plymouth district, alcohol was a factor in 16 percent of injury crashes in 2006, an increase from 2005, and increasing in line with the national trend.

There were 105 alcohol-related injury crashes reported in the last five years.



#### **Key locations**

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

#### New Plymouth district

SH 3 / Johns Road intersection

SH 3, 130m south of Onaero Bridge

Mangorei Road, 570m north of Baker Road

SH 3 / Rugby Road intersection

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

Driver licence status, alcohol related injury crashes, at fault drivers in the New Plymouth district	Percentage of total at fault drivers in alcohol related crashes (NZ value in brackets)
Full	34.4 (41.6) percent
Learner	12.5 (15.8) percent
Restricted	31.3 (20.8) percent
Never Licenced	6.3 (4.6) percent
Disqualified	6.3 (6.2) percent
Overseas	0 (1.0) percent
Expired	3.1 (1.4) percent
Other / unknown	6.3 (8.2) percent

Further facts about alcohol related crashes in the New Plymouth district (divided into local roads and Transit roads) (2002 -2006)

#### Local roads

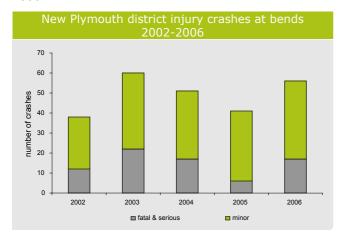
- 2 deaths, 20 serious injuries 81 minor injuries
- Male driver 73 percent
- Most common crash type, Bend (lost control/head on)
- 34 percent at intersections
- 77 percent urban
- 31 percent wet road
- 75 percent night time
- Worst month June, best November
- Worst day of week Sunday, best Monday

- 4 deaths, 13 serious injuries 45 minor injuries
- Male drivers 74 percent
- Most common crash type, Bend (lost control/head on)
- 45 percent at intersections
- 49 percent urban
- 25 percent wet road
- 77 percent night time
- Worst month December, best January
- Worst day of week Saturday, best Monday

# Crashes at bends

Between 2002 and 2006, 25 percent of all injury crashes in the New Plymouth district occurred at bends. These crashes resulted in 15 fatalities, 84 serious injuries and 268 minor injuries.

Fatal and serious crash numbers fell between the years 2003 and 2005 with minor injury crashes remaining relatively steady over the period 2003 to 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 the New Plymouth district were fences (64), banks (42) and posts or poles (37) from a total of 272 objects struck.

The following table lists the main characteristics of these crashes.

Crash characteristic	Crashes
Single vehicle	78 percent
Alcohol	24 percent
Excessive speed for the conditions	38 percent
Road factors	21 percent
Poor handling	41 percent
Rural road	67 percent
Wet road	37 percent
Night time	46 percent

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

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Driver licence status, bend related injury crashes, at fault drivers in the New Plymouth district	Percentage of total at fault drivers in bend related crashes (NZ value in brackets)
Full	40.0 (51.1) percent
Learner	9.1 (10.7) percent
Restricted	29.1 (17.9) percent
Never Licenced	5.4 (4.1) percent
Disqualified	1.8 (2.8) percent
Overseas	3.6 (5.6) percent
Expired	0 (0.9) percent
Other / unknown	10.9 (6.8) percent

Further information about crashes on bends in the New Plymouth district (2002 – 2006):

#### Local roads

- 5 deaths, 38 serious injuries, 157 minor injuries
- Male drivers 72 percent
- Most common crash type, lost control/head on
- Most common age group 15-19 years
- 31 percent alcohol over limit
- Worst month June, best September
- Worst days of week Friday and Sunday, best Monday

- 10 deaths, 46 serious injuries, 111 minor injuries
- Male drivers 64 percent
- Most common crash type, lost control/head on
- Most common age group 15-19 years
- 16 percent over alcohol limit
- Worst month September, best August
- Worst day of week Sunday, best Wednesday

# Vulnerable road users

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

# **Pedestrians**

In the New Plymouth district for the period 2002 to 2006 pedestrian injuries represent 6 percent of all injuries, and 7 percent of all fatalities

Pedestrian injuries	2002	2003	2004	2005	2006
Fatal	-	-	-	-	2
Serious	7	4	10	7	3
Minor	18	10	4	3	8
Total	25	14	14	10	13

Most (44 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
North Street, 50m south of Leslie Street	2
Barriball Street, 20m west of Richmond Street	2
SH 45 / Gover Street intersection	2
Lairdet Street / Devon Street (east) intersection	2

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 (28 percent).
- Worst month February, best September
- Worst day of week Monday, best Saturday
- Number of at fault drivers 24

- The most common crash type was for a pedestrian crossing the road being hit by a driver approaching from their right (59 percent).
- · Worst month March, best April
- Worst days of week Wednesday and Saturday, best Tuesday
- Number of at fault drivers 15

# **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 Taranaki area include:

#### **New Zealand Police**

Central District Road Policing Manager Neil Wynne Cuba Street Palmerston North Phone 06 351 3600

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

Taranaki Marion Webby Private Bag 902 Hawera Phone 06 278 0555

#### **Local Authority Engineers**

New Plymouth District Council Stephen Bowden Private Bag 2025 New Plymouth Phone 06 759 6060

#### **Accident Compensation Corporation**

Taranaki Area ACC Injury Prevention Consultant Kath Forde Private Bag New Plymouth Phone 06 759 0730

#### **Transit New Zealand**

Roger McLeay PO Box 345 Wanganui Phone 06 345 4173

# **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