



briefing notes - road safety issues

Kaipara 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 Kaipara District.

This report is the eighth road safety report for Kaipara District. All the material unless otherwise stated in this report applies to both local roads and to Transit New Zealand (Transit NZ) roads.

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 Kaipara 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 2002 to 2006.

We encourage local bodies to use their free access to the Ministry of Transport's Crash Analysis System to delve deeper into the highlighted issues.

Major road safety issues

Kaipara District

Bends
Alcohol
Speed
Road factors

Nationally

Speed
Alcohol
Failure to give way
Restraints

2006 road trauma

Casualties

Kaipara District

Deaths 5
Serious casualties 21
Minor casualties 115

Crashes

Kaipara District

Fatal crashes 5
Serious injury crashes 16
Minor injury crashes 74
Non-injury crashes 131

Overview

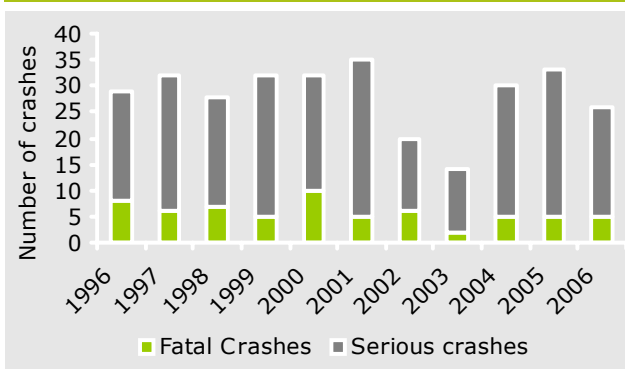
In 2006 on local roads in Kaipara District there were 43 injury crashes and 54 non-injury crashes. In addition there were 52 injury crashes and 77 non-injury crashes on Transit NZ roads, both as reported by the New Zealand Police.

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

Casualties by injury type 2006				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	3	20	97	120
Urban	2	1	17	20
Total	5	21	114	140

Fatalities and serious crashes have remained relatively steady over the last ten years except for the years 2002 and 2003.

Fatal and serious crashes 1996 to 2006



Fatal and serious crashes

Crash type or contributory cause 2002 to 2006	Percentage fatal or serious crashes of this type or contributory cause
Lost control at bend	58%
Lost control on straight	21%
Alcohol	30%
Too Fast	29%
Crashes in the dark	35%
Road factors	16%

Further information about 2002 to 2006 injury and non-injury crashes on local Kaipara District roads:

- Worst month December, best June
- Worst day Saturday, best Monday
- 25 percent on wet roads
- 27 percent at night
- 19 percent at intersections
- Social cost of crashes in 2006 \$18m
- 46 percent of at fault or part fault drivers held a full NZ licence

Further information about 2002 to 2006 injury and non-injury crashes on Transit NZ roads in Kaipara District:

- Worst month January, best September
- Worst day Saturday, best Wednesday
- 38 percent wet road
- 33 percent night time
- 19 percent at intersections
- Social cost of crashes in 2006 \$24m
- 70 percent of at fault or part fault drivers held 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 Kaipara District with as little as 48 percent of at fault drivers in injury crashes being the holder of a full driving licence.

Driver licence status 2006 Kaipara District	Percentage of total 'at fault' drivers (New Zealand 2006 value in brackets)
Full	48.2 (58.4) %
Learner	9.4 (9.5) %
Restricted	17.6 (17.6) %
Never licenced	2.3 (2.2) %
Disqualified	4.7 (1.7) %
Overseas	7.0 (4.2) %
Expired	2.3 (0.5) %
Other / unknown	8.2 (5.6) %

Crashes at bends

Between 2002 and 2006 fifty five percent of all injury crashes in Kaipara District occurred at bends.

These crashes resulted in 13 fatalities, 59 serious injuries and 237 minor injuries.

Over the last five years crash numbers have been trending upwards.

Crashes at bends 2002 to 2006				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2002	4	9	15	28
2003	0	6	25	31
2004	4	14	38	56
2005	3	9	33	45
2006	2	8	44	54
Total	13	46	155	214

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 Kaipara District were cliffs or banks (29), ditches (21) and fences (15) from a total of 212 objects struck.

Main characteristics of injury crashes at bends	
Crash characteristic	Percentage of crashes
Single vehicle	77 %
Alcohol	22 %
Excessive speed for the conditions	33 %
Road factors	27 %
Poor handling	33 %
Rural road	90 %
Wet road	39 %
Night time	32 %

At fault driver licence status 2006

Driver Licence status, bend related injury crashes, at fault drivers in Kaipara District	Percentage of total at fault drivers in bend related crashes (New Zealand value in brackets)
Full	49.0 (51.1) %
Learner	9.8 (10.7) %
Restricted	13.7 (17.9) %
Never licenced	2.0 (4.1) %
Disqualified	4.0 (2.8) %
Overseas	7.8 (5.6) %
Expired	4.0 (0.9) %
Other / unknown	9.8 (6.8) %

Further information about injury crashes on bends 2002 to 2006 on local roads in Kaipara District:

- 5 deaths, 23 serious injuries and 121 minor injuries
- 77 percent of at fault drivers were male
- Most common crash type "lost control turning right"
- Most common age group 15-19 years
- 27 percent of crashes involved alcohol
- Worst month December, best June
- Worst day of week Saturday
- Worst time period 3pm-6pm

Further information about injury crashes on bends in 2002 to 2006 on Transit NZ roads in Kaipara District:

- 8 deaths, 36 serious injuries and 116 minor injuries
- 70 percent of at fault drivers were male
- Most common crash type "lost control turning right"
- Most common age group 20-24 years
- 17 percent involved alcohol
- Worst month January, best September
- Worst day of week Saturday, best Monday
- Worst time period 3pm-6pm and 9pm-midnight

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 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 Kaipara District, alcohol was a factor in 18 percent of injury crashes in 2006, an increase from 2005. However 60% of the 2006 fatal crashes in the district involved alcohol.

There were 69 alcohol-related injury crashes reported in the last five years.

Alcohol crashes			
Crash year	Open road	Urban road	Total
2002	8	4	12
2003	8	4	12
2004	11	6	17
2005	10	1	11
2006	13	4	17
Total	50	19	69

The key crash location of alcohol related injury crashes occurring between 2002 to 2006 are shown in the map on the following page.

From the beginning of 2007 Land Transport NZ has been adding driver factor codes to all non-injury crashes entered into the crash system for the northern region.

This will allow the Police and other agencies to target alcohol related crashes with even more geographic accuracy than ever before.

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

As the 2006 Kaipara District sample is small it is not possible to drill down with any statistical reliability to a licence class level so the Kaipara District values in the table are for 2002-2006.

Driver licence status	
Driver Licence status, alcohol related injury crashes, at fault drivers in Kaipara District 2002 to 2006	Percentage of total at fault drivers in alcohol related crashes (New Zealand 2006 value in brackets)
Full	43.7 (41.6) %
Learner	9.3 (15.8) %
Restricted	14.0 (20.8) %
Never Licenced	4.7 (4.6) %
Disqualified	10.9 (6.2) %
Overseas	0.0 (1.0) %
Expired	6.2 (1.4) %
Other / unknown	10.9 (8.2) %

Further information about alcohol related injury crashes in Kaipara District on local roads (2002 to 2006):

- 4 deaths, 15 serious injuries and 40 minor injuries
- 85 percent of at fault drivers were male
- Most common crash type “loss of control on bend”
- 24 percent at intersections
- 34 percent urban
- 22 percent wet road
- 56 percent night time
- Worst months February and November, best April
- Worst day of week Saturday, best Tuesday

Further information about alcohol related injury crashes in Kaipara District on Transit NZ roads (2002 to 2006):

- 5 deaths, 10 serious injuries and 19 minor injuries
- 88 percent of at fault drivers were male
- Most common crash type “loss of control on bends”
- 14 percent at intersections
- 18 percent urban
- 21 percent wet road
- 75 percent night time
- Worst month February, best December
- Worst day of week Saturday, best Tuesday and Thursday

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, nationally 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 Kaipara District, excessive speed was a factor in 22 percent of all injury crashes in 2006.

There were 93 speed-related injury crashes reported in the last five years.

Speed related crashes					
Speed related injury crashes	2002	2003	2004	2005	2006
Urban	3	2	5	4	4
Rural	12	11	21	14	17
Total	15	13	26	18	21

Males represented 81 percent of at fault drivers in injury speed related crashes (2002-2006).

Age and sex of at fault drivers			
Drivers at fault in speed related injury crashes (2002- 2006) (note ranges are not equal)	Male	Female	Total
15- 19 years	21	5	26
20 - 24	15	3	18
25 - 29	8	1	9
30 - 39	12	4	16
40 - 49	12	2	14
50 - 59	4	1	5
60 - 69	0	1	1
70+	3	0	3
Total	75	17	92

At fault driver licence status	
Driver Licence status, speed related injury crashes, at fault drivers. Kaipara District (2002 to 2006)	Percentage of total at fault drivers in speed related crashes (New Zealand 2006 value in brackets)
Full	47.8 (43.0) %
Learner	13.8 (15.3) %
Restricted	14.9 (22.5) %
Never Licenced	6.4 (4.5) %
Disqualified	4.2 (4.1) %
Overseas	2.1 (3.7) %
Expired	2.1 (0.5) %
Other / unknown	8.5 (6.2) %

Further information about speed related injury crashes in Kaipara District on local roads (2002 to 2006):

- 3 deaths, 9 serious injuries and 40 minor injuries
- 78 percent of at fault drivers are male
- Most common crash type "lost control on bend"
- 75 percent mid-block
- 15 percent wet road
- 20 percent night time
- Worst month November
- Worst day of week Saturday, best Tuesday

Further information about speed related injury crashes in Kaipara District on Transit NZ roads (2002 to 2006):

- 5 deaths, 18 serious injuries and 52 minor injuries
- 83 percent of at fault drivers are male
- Most common crash type "lost control on bend"
- 77 percent mid-block
- 53 percent wet road
- 45 percent night time
- Worst month February
- Worst day Saturday, 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 Kaipara District, "road factors" were a contributing factor in 10 percent of injury crashes in 2006. Between 2002 and 2006 they were a factor in 16 percent of fatal and serious crashes.

There were 86 road factor related injury crashes reported in the last five years.

Road factors are predominantly a rural issue in the Kaipara District as illustrated in the table below.

Road factor crashes					
Road factor related injury crashes	2002	2003	2004	2005	2006
Urban	2	2	0	0	3
Rural	8	13	24	14	20
Total	10	15	24	14	20

Road factor crashes are spread across the district however the following is a list of key locations:

- State Highway One between Ross Road and a little north of State Highway 12
- State Highway 14 between Tangowahine Settlement East Road and Paradise Road
- State Highway 14 between Bob Taylor Road and the boundary with Whangarei District

Road factors in injury crashes

Number of occasions NZ Police reported this factor 2002 to 2006	Local road	Transit NZ road
Slippery road	14	37
Road surface in poor condition	22	8
Road obstructed	2	3
Visibility limited	10	3
Signs or signals (needed or faulty)	2	1
Street lighting	1	0

Further information about road factor related injury crashes in Kaipara District on local roads (2002 to 2006):

- No deaths, 8 serious injuries and 54 minor injuries
- Most common crash type, loss of control at a bend
- 10 percent at intersections
- 9 percent urban
- 26 percent wet road
- 21 percent night time
- Best month July

Further facts about road factor related crashes in Kaipara District on Transit NZ roads (2002 to 2006):

- 1 death, 7 serious injuries and 61 minor injuries
- Most common crash type loss of control at bend
- 14 percent at intersections
- 7 percent urban
- 82 percent wet road
- 27 percent night time
- Worst month June, best March and September

National issues

This section contains some brief information on the key national road safety issues as measured in Kaipara District. They may have been covered elsewhere in this document or not be a specific issue.

Speed

“Too fast” was recorded in 24 percent of injury crashes in the district in the last five years resulting in 8 deaths and 119 injuries. Speed as a factor in crashes is not reducing in the district.

Seventy six percent of speed-related crashes were “loss of control at a bend” crashes. Alcohol and poor handling were the other driver factors often associated with speed.

At fault male drivers aged 15 to 19 were the most highly represented of the five year age bands in speed-related crashes.

Alcohol

Alcohol was involved in 18 percent of injury crashes in the district in the last five years resulting in 9 deaths and 81 other injuries. The number of injury crashes involving alcohol is increasing.

Twenty seven percent of alcohol crashes were in urban areas of the district.

Speed and poor handling were the other factors often associated with alcohol.

Failure to give way

Failure to give way or stop was reported in just ten percent of all reported injury crashes for the last five years resulting in no deaths and 61 injuries.

Sixty five percent of at fault drivers were male.

Restraints

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a regional level, and may not be fully appropriate to a Territorial Authority. The results are obtainable from the Ministry of Transport website.

<http://www.transport.govt.nz/belts-index/>

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