road safety issues

he Land Transport Safety Authority (LTSA) has prepared this road safety issues report. It is based on reported crash data and trends for the 1999–2003 period. The intent of the report is to highlight the key road safety issues in the Waimakariri District.

Four people died in the Waimakariri District in 2003 in four separate crashes. Three were Waimakariri residents, and one lived in Christchurch. Two involved head-on collisions, one a rear-end collision and one lost control while travelling too fast.

The social cost of crashes in 2003 was \$38.2 million, with most of this resulting from crashes on rural local roads. There were 87 injury and 94 non-injury crashes in 2003, of which approximately one third occurred on urban roads and two thirds on rural roads.

At first glance the crash numbers in the Waimakariri District appear to have climbed quite significantly in the past year. However, most of these were minor crashes. It is possible that the method of defining minor injuries, plus an increased reporting rate, may have contributed to this apparent increase (see first chart on next page).

The most common type of crash in urban parts of the Waimakariri District between 1999 and 2003 was the intersection type crash, while the highest proportion of rural injury crashes was loss of control. The main contributor to intersection crashes was poor observation, while loss of control crashes involved a higher than usual level of poor handling, speed and alcohol.

Major road safety issues

Waimakariri District

Intersections

Loss of control

Female drivers

Alcohol

Nationally

Speed

Alcohol

Failure to give way

Restraints

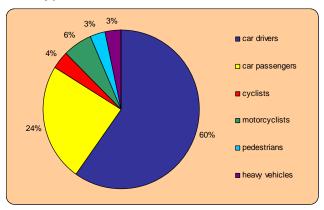
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2003 road trauma for Waimakariri District

\mathbf{O}	Deaths	4
¥	Serious casualties	23
	Minor casualties	102
	Fatal crashes	4
	Serious injury crashes	20
	Minor injury crashes	63
	Non-injury crashes	94

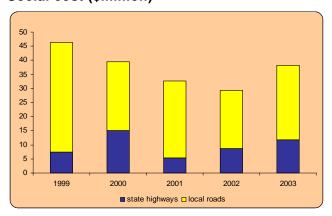
Road casualties 1999-2003

User type 1999-2003



Estimated social cost of crashes*

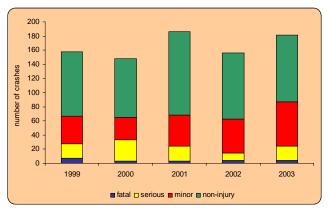
Social cost (\$million)



*The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are expressed at June 2002 prices.



Crash severity by year



Males in the 15 to 19 year age group still dominate the crash statistics, but the proportion of females involved in crashes has been increasing over the last couple of years.

Rural alcohol-related crashes, after dropping to their lowest level in the last 10 years, continued to climb although at a slightly slower rate than prior to 2002. Over the last five years, 16 percent of injury crashes in the Waimakariri District involved alcohol (approximately 10 percent of urban crashes and 20 percent of rural crashes).

The worst day for crashes in the Waimakariri District was Saturday and the most common time was between 4 pm and 8 pm.

The maps in the centre of this report show locations of crashes by severity and loss of control.

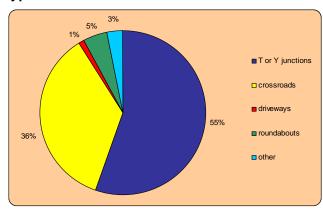
Intersections

Crashes at intersections continue to be one of the major problems on Waimakariri District roads, particularly on urban roads. Between 1999 and 2003, just over half of all urban crashes in the Waimakariri District occurred at intersections. The most common type of crash involved some form of crossing or turning (just over half of all intersection crashes and around 60 percent of injury crashes), while nearly a quarter involved loss of control.

The crashes were fairly evenly spread through the week, with Monday and Tuesday being the quietest days for these types of crashes. Around 30 percent of intersection crashes occurred between 4 pm and 8 pm. May was the worst month for injury crashes at intersections.

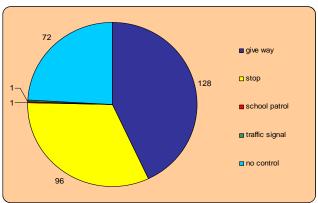
Approximately 15 percent involved alcohol, while speed was a factor in around 10 percent of intersection crashes.

Injury and non-injury crashes by intersection type 1999–2003



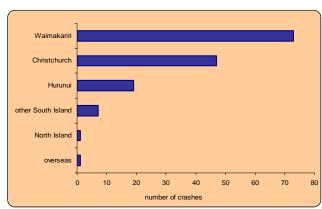
Eighty percent of intersection crashes occurred on local roads. Over half of all intersection crashes occurred at T junctions, as shown in the above graph. The control sign is shown in the chart below.

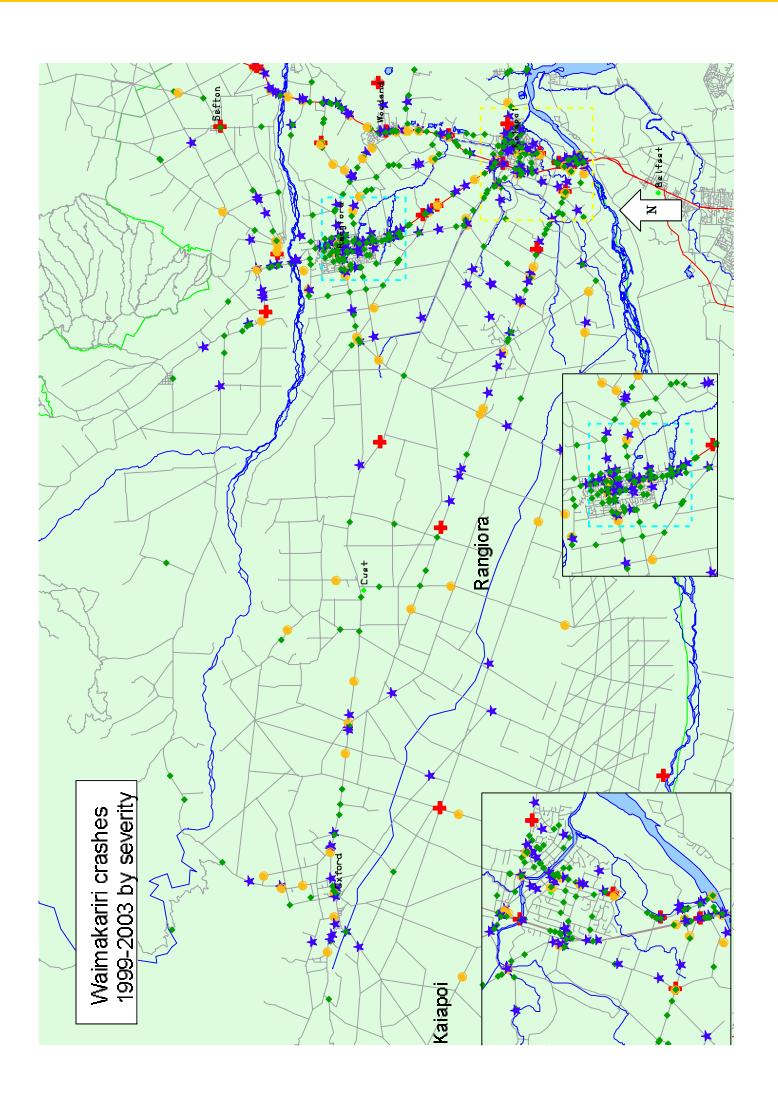
Number of injury and non-injury intersection crashes by control type

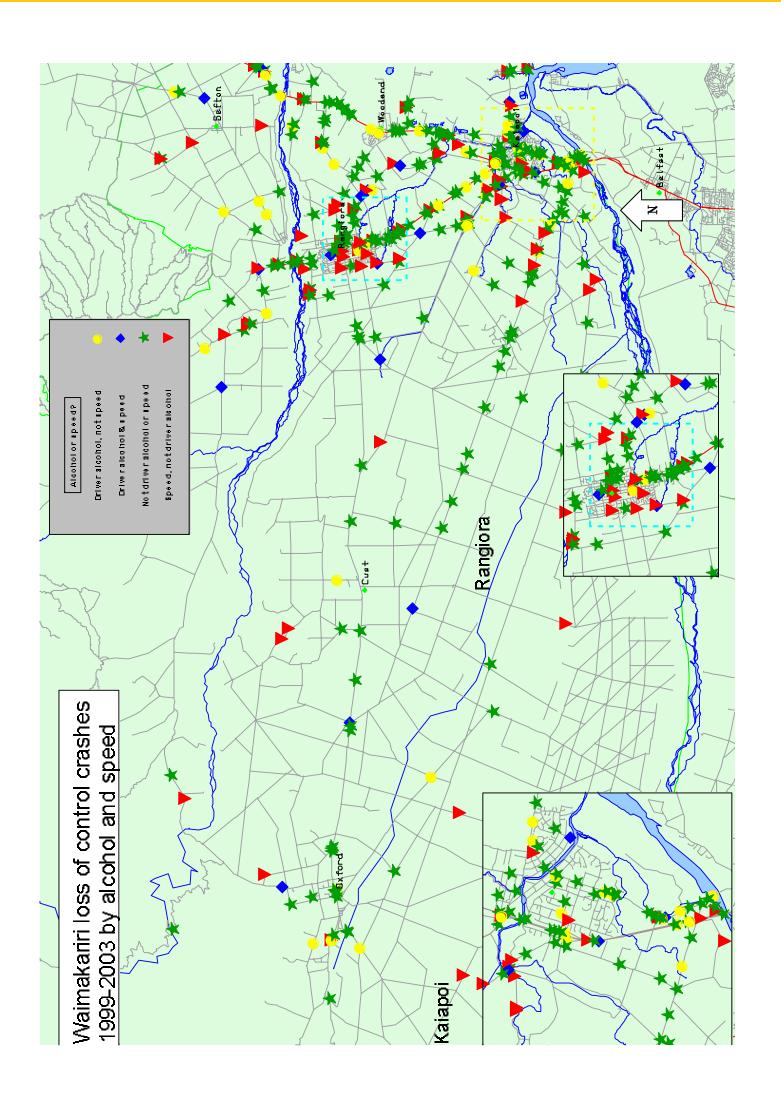


Most drivers involved in injury crashes were local residents or came from Christchurch which also has a high incidence of intersection crashes.

Home location of drivers involved in injury crashes at intersections 1999–2003





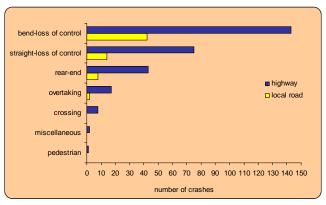




Loss of control

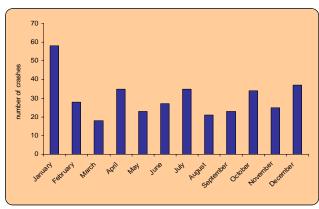
Just under half of all injury crashes in the Waimakariri District between 1999 and 2003 involved loss of control. Most tended to be single vehicle crashes on rural local roads. Eighty-one percent of loss of control crashes involved only one vehicle and 87 percent occurred on rural local roads. The most common factor in loss of control crashes was excessive speed for the conditions, followed by alcohol, poor handling, poor judgement and poor observation.

Crash types by local road/state highway 1999–2003



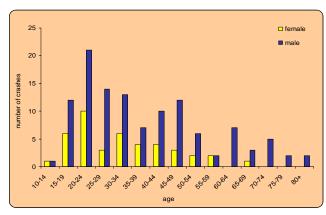
Loss of control crashes happen more frequently during school holiday periods than at other times, particularly during the Christmas break.

Month for loss of control crashes on bends 1999–2003



Drivers involved in loss of control on bend crashes tended to be slightly older than those involved in other types of crashes, where the 15 to 19 year age group usually dominated.

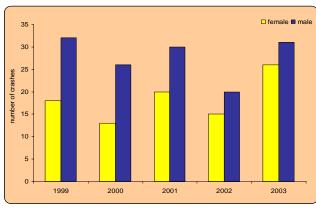
Age and gender of drivers involved in loss of control on bend crashes 1999–2003



Female drivers

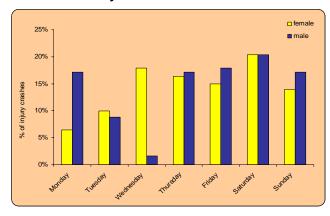
While the proportion of females to males involved in crashes has not changed greatly, an increasing number of females are being injured.

Male/female crash casualties



While female involvement in crashes is increasing, the pattern of days when these crashes occur differs from that for males.

Gender and day of week for crash casualties

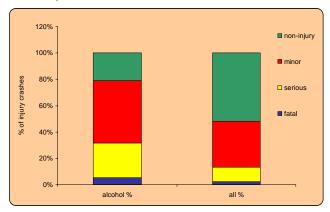




Alcohol

Alcohol-related injury crashes have been slowly creeping up in the last few years, as shown in the graph below.

Severity of alcohol-related crashes 2003



Of the alcohol-related crashes:

- over three quarters involved losing control of the vehicle.
- just over 80 percent occurred on local roads
- just under 80 percent occurred on rural roads
- the largest age group involved in these crashes was 20 to 24 year olds
- males outnumbered females in alcohol-related crashes by three to one.

Back issues

Road safety issues reports have been produced since 2000. In the previous reports some issues keep recurring while others disappear, occasionally to resurface. The following is a summary of issues in the Waimakariri District since 2000.

2001 Loss of control on bends

Intersections

Alcohol

Poor observation

2002 Intersections

Poor observation

Rural alcohol

2003 Intersections

Loss of control

Collisions with objects

School road safety

Some of these issues continue as a problem year after year and often are a reflection of the physical limitations of the area. However, attempts must still be made to minimise the effects. Others disappear for a year or two, only to reappear, either because of statistical variations or because an effective programme has been run and discontinued and the effects have worn off. It is important to examine engineering, enforcement or education programmes to determine whether they are still meeting current needs.

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