

# road safety issues

July 2002

The Land Transport Safety Authority (LTSA) has prepared this Road Safety Issues Report. It is based on reported crash data and trends for the 1997–2001 period. The intent of the report is to highlight the key road safety issues and to identify possible ways to reduce the number of road deaths and injuries in the Waimakariri district.

Twenty people died, 147 were seriously injured and 350 people received minor injuries in the Waimakariri district during the five years 1997 to 2001. In addition, there were 247 non-injury crashes reported. The number of crashes and casualties has remained relatively constant over the last three years. However, urban and rural crashes have shown different trends during this period.

The most common crash types in Waimakariri involved a loss of control crash or head-on collision on a bend (26 percent), intersection crashes (24 percent) and loss of control or head-on collisions on straight roads (20 percent).

Around two thirds of injuries were sustained in crashes in the rural areas of the district.

The intersection crash continued to be the most common urban crash, representing over half of all urban crashes. Approximately two fifths of all rural injury crashes occurred in darkness.

Males were almost twice as likely to be injured in a crash in Waimakariri as females.

## Major road safety issues:

### Waimakariri district

Loss of control and head-on crashes

Intersections

Poor observation

Rural alcohol

### Nationally

Speed

Alcohol

Failure to give way

Restraints



## 2001 road toll for Waimakariri district

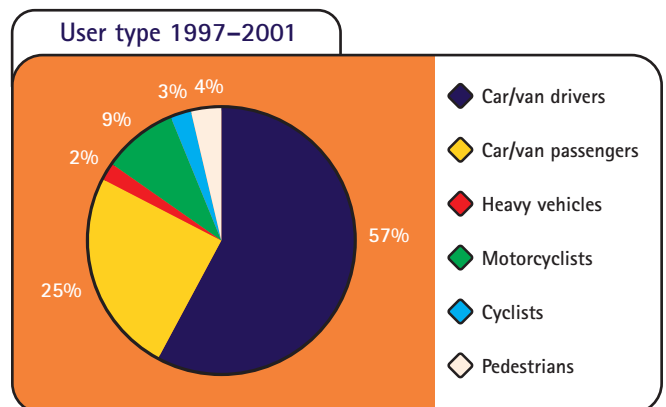


Deaths	3
Serious casualties	27
Minor casualties	69

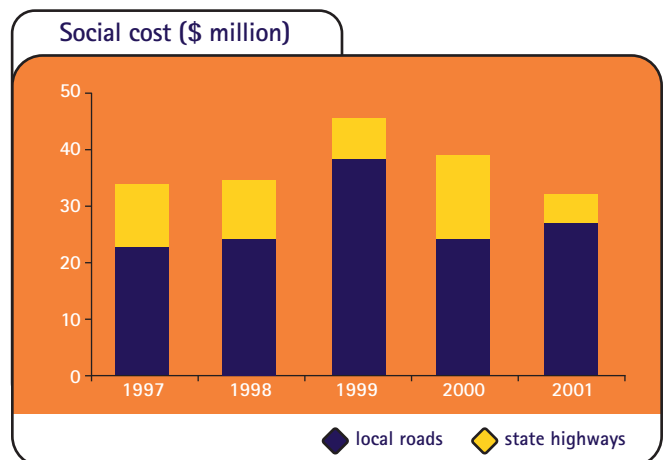


Fatal crashes	3
Serious injury crashes	21
Minor injury crashes	43
Non-injury crashes	117

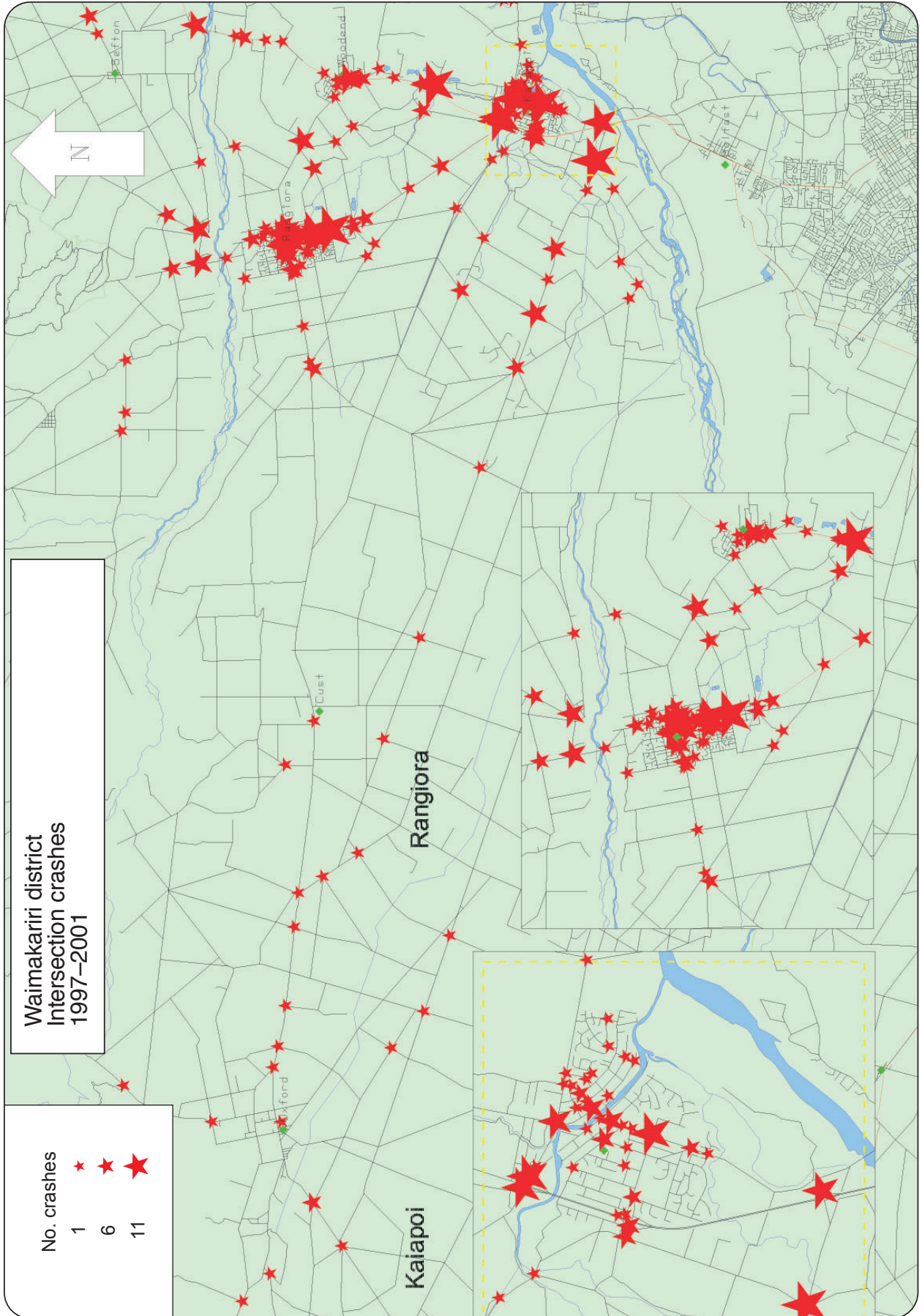
## Road user casualties 1997–2001



## Estimated social cost of crashes\*



\* 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 2001 prices.





## Loss of control and head-on crashes

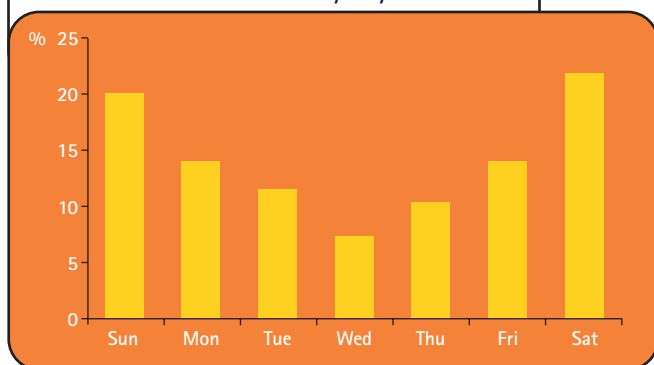
Nearly half of all injury crashes in the Waimakariri district involved loss of control or head-on collisions, either on a bend or straight road. These crashes were about 10 percent more likely to occur on bends than on straight roads. Most crashes occurred on the open road (85 percent), but only about a quarter on state highways. Of the state highway crashes, about three quarters were on State Highway 1.

Alcohol featured in just over a quarter of loss of control crashes, while speed was a contributing factor in about a third. Around an eighth of loss of control and head-on crashes involved both alcohol and speed. Four fifths of crashes involved only one vehicle.

Crashes were equally as likely to occur in daylight as in darkness. The most common time was between noon and 8pm and crashes were more frequent at weekends than on weekdays.

Fifteen to 19 year-old male drivers were far more likely to be involved in a loss of control crash than any other age group, and nearly four times as likely as 15 to 19 year-old female drivers.

Loss of control crashes by day of week



## Recommended actions

- Support campaigns that inform and educate drivers to adjust speed to conditions for both road and environment.
- Ensure adequate delineation.
- Construct good shoulders that allow room for recovery when vehicles stray off the road.
- Enforce both speed and alcohol awareness.

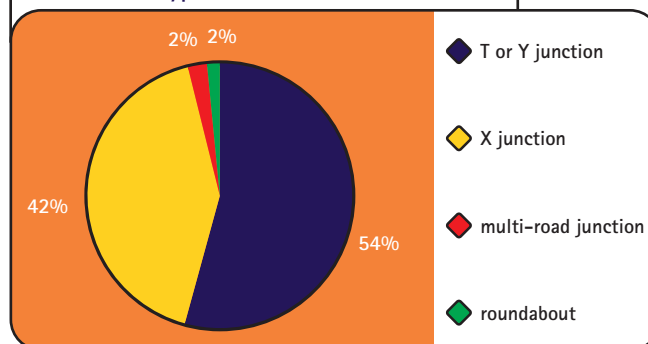


## Intersections

Three hundred and twenty-three out of 848 (38 percent) of all crashes in Waimakariri between 1997 and 2001 occurred at an intersection of some sort. Of these 323 crashes, 129 (about two fifths) resulted in injury. Four fifths occurred on local roads and just over half occurred on open roads. However, almost all the state highway intersection crashes included in this number occurred on rural roads, whereas slightly less than half of the local road intersection crashes occurred on the open road.

Crashes at T junctions were more common in non-injury crashes while injury crashes most commonly occurred at cross-intersections. Although more roundabouts are being constructed, very few crashes actually occurred at them.

Junction type for intersection crashes



Poor observation was by far the most common factor in intersection crashes, featuring in nearly 60 percent of injury intersection crashes. This can include inattention, being distracted by someone or not looking properly, as opposed to actually seeing the other party but misjudging the time available to clear the intersection (only 12 percent of crashes). Nearly a quarter of all intersection crashes involved only one vehicle and most commonly involved loss of control, often due to excess speed (speed was a factor in approximately one fifth of the intersection crashes).

Two thirds of intersection crashes occurred in daylight and about four fifths on dry roads. About one in seven crashes involved either alcohol or speed, but only one in 20 involved both. Young males (aged 15 to 19) were the most likely to have intersection crashes.

## Recommended actions

- Inform and educate drivers on the need to be alert when approaching and crossing intersections.
- Continue to conduct campaigns to make drivers more aware of the need to check and give way at intersections.
- Ensure vegetation is cleared back from rural intersections in particular.
- Check that parked vehicles are not obstructing visibility in urban situations.
- Continue with black and grey spot investigations at identified intersections.

## Poor observation

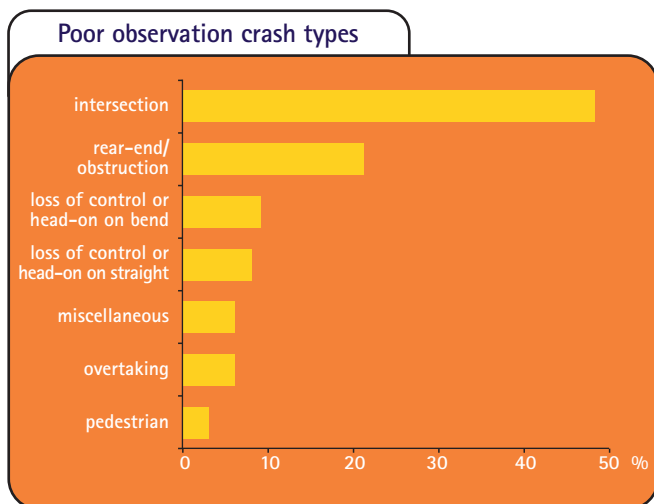
The most common cause for crashes in the Waimakariri district between 1997 and 2002 was poor observation – not paying sufficient attention or being distracted – which featured in nearly 40 percent of all injury crashes.

The most common crash type caused by poor observation was some form of intersection crash (just under a half), followed by rear-end or obstruction crashes (approximately 20 percent). Local road crashes of this type were evenly divided between urban and rural crashes, while most of those on the state highways occurred in rural areas. Overall, slightly more occurred on rural roads than urban ones. Crashes tended to occur fairly equally at T or X junctions and were slightly more common at Give Way than at Stop signs. Nearly two thirds of injury crashes failed to notice the other party until too late, whereas just under half failed to notice the intersection or intentions of the other party until it was too late to react.

Alcohol and speed did not appear to be significant factors in crashes caused by poor observation, nor did external factors such as the road condition or weather.

Poor observation crashes were also spread fairly evenly over the week, occurring slightly more frequently on Wednesday than on other days of the week and more commonly during normal daylight hours.

Fifteen to 19 year-old males were the most highly featured group of drivers in this crash type followed by 50 to 54 year olds.



## Recommended actions

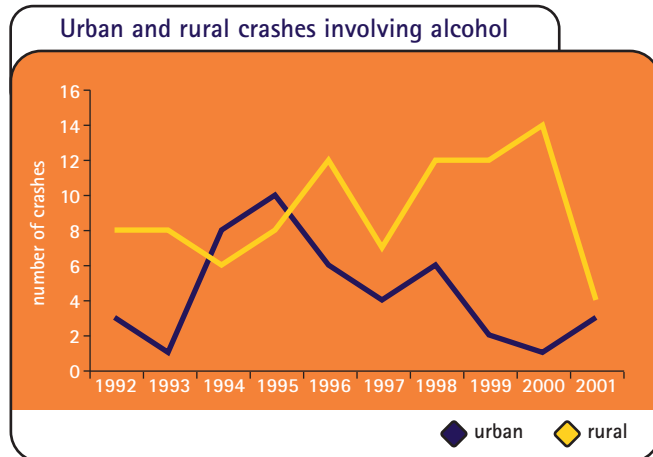
- Conduct advertising campaigns to remind people to stay alert.
- Carry out engineering improvements to black spot intersections.
- Examine locations to see if particular groups or time of crash stand out.

## Rural alcohol

Just under a fifth of all injury crashes in the Waimakariri district between 1997 and 2001 involved alcohol. Although actual numbers were fairly low, significant effort is put into keeping these numbers down and they should be regularly monitored to see that the programmes and deterrents are having an effect. Recorded crashes have indicated that generally the number of alcohol-involved urban crashes has decreased, while the rural crashes have increased slowly. However, this situation was reversed in 2001. This could be a one-off statistical oddity, or the beginning of a change in trend, and monitoring will determine which case is correct. Meanwhile, efforts should be continued to maintain the current low numbers, or decrease them even further. Analysing the data helps to determine who, when and where to target. Due to higher numbers of crashes over the last five years compared with urban areas, rural alcohol has been targeted in this issue.

Typically, Friday, Saturday and Sunday were the most common days for alcohol-related rural crashes, with crashes occurring more commonly between 4pm and midnight (two thirds of all rural alcohol-related injury crashes occurred in darkness). More happened on local roads than on state highways (around two thirds) and when the crash ended in a collision with an object it was most commonly a fence (around one fifth). One tenth of rural alcohol-related crashes involved a motorcycle.

Fifteen to 19 and 25 to 29 year-old males featured more often in rural alcohol-related crashes than other age groups.



## Recommended actions

- Support local police drink-driving campaigns that target the older driver.
- Promote the sober driver message over weekend periods to target the younger driver.
- Support the activities of Students Against Driving Drunk (SADD) groups in secondary schools.



# New Zealand Road Safety Programme

Reducing trauma involves a multi-pronged approach, which includes education, engineering and enforcement. The New Zealand Road Safety Programme (NZRSP) provides funding to educate road users to change their behaviour through projects delivered by road safety co-ordinators and community groups. The programme also funds the New Zealand Police for their targeted enforcement activities and support of community road safety projects. Transfund New Zealand provides funding to local authorities for roading projects through its National Land Transport Programme.

## Community projects

Community funding of road safety projects aims to encourage local involvement and ownership of issues, and target local resources and effort to local risks. Central to community programmes is the need to develop and motivate local partnerships in road safety to help reduce the number of deaths and injuries in the Waimakariri district.

Funding for community projects in the Waimakariri district from the NZRSP for the 2002/2003 year has been confirmed as follows:

Project	Funding	Police hours
Road safety co-ordinator	\$27,000	
Community alcohol action programme	\$5,000	50
Speed	\$3,000	
Safe with age	\$1,000	
Restraints	\$1,500	
A & P shows	\$1,000	
Intersection safety	\$3,000	50
Safe cycling	\$500	
Young driver	\$2,000	
Trees in winter	\$10,000	
Walking bus	\$500	

The Waimakariri district will also be involved this year in regionally funded projects to target the high-risk issues of speed, alcohol, restraints and pedestrians. These projects have been funded as follows:

Project	General funding	Advertised funding
Regional road safety co-ordinator	\$38,000	–
Speed	\$60,000	\$20,000
Intersection safety	\$50,000	\$8,000
Fatigue	\$20,000	\$29,510
Pedestrian safety	\$10,000	\$10,000
A & P show displays	\$20,000	–
Development of safe driving policies	\$3,500	–
Regional billboard project	–	\$11,000

## Police enforcement

In addition to the 100 police hours to support community projects, a further 6,850 hours will be delivered by police in the Waimakariri district as follows:

Project	Hours
Strategic – alcohol/drugs, speed, restraint and visible road safety enforcement	5,770
Traffic management including crash attendance, incidents, emergencies and events	760
School road safety education	200
Police community services	120

## Road environment

The Waimakariri district has an allocation for minor safety projects on local roads in Transfund New Zealand's National Land Transport Programme 2002–2003.

## Where to get more information

For more specific information relating to road crashes in the Waimakariri district please refer to the 1997 to 2001 Road Safety Data Report or the Land Transport Safety Authority Accident Investigation System, or contact the people or organisations listed below:

### Land Transport Safety Authority

Regional Manager  
Dennis Robertson  
Phone 03 363 5661

Regional Education Advisor  
Bob Clements  
Phone 03 363 5677

Area Road Safety Engineer  
Yvonne Warnaar  
Phone 03 363 5642

### Road Safety Co-ordinator

Chris Neason  
Waimakariri District Council  
215 High Street  
Private Bag 1005, Rangiora  
Phone 03 313 6136

### New Zealand Police

Inspector Derek Erasmus  
New Zealand Police  
PO Box 2109, Christchurch  
Phone 03 363 7417

### Waimakariri District Council

George Jasonsmith  
Waimakariri District Council  
Private Bag 1005, Rangiora  
Phone 03 313 6136

### Transit New Zealand

Area Engineer  
Barry Stratton  
PO Box 1479, Christchurch  
Phone 03 366 4455

Christchurch Regional Office  
Level 5, BNZ House, 129 Hereford Street  
PO Box 13-364, Christchurch  
Phone 03 363 5666, Fax 03 363 5655  
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