

# road safety issues

July 2003

The Land Transport Safety Authority (LTSA) has prepared this road safety issues report. It is based on reported crash data and trends for the 1998–2002 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 Waimate District.

Two people died in road crashes in Waimate in 2002, both in 70 km/h areas. One was the driver of a southbound truck that lost control on the S bend at the south end of St Andrews. The other was a van driver who lost control when a rear tyre blew out just north of the Makikihi River bridge.

In 2002 there was a similar number of injury crashes but more non-injury crashes than in previous years. About three quarters of the injury crashes in 2002 happened on state highways. The social cost of crashes in 2002 on state highways was more than 10 times that for crashes on local roads. This is due to the more severe and higher number of crashes happening on state highways.

Over the five years nearly three quarters of the crashes happened on rural roads and about 70 percent of these were on state highways, with fatigue being the most common factor.

Poor observation was the most common factor in crashes on urban roads. About half of the urban crashes were on state highways and half on local roads.

## Major road safety issues

### Waimate District

Rural state highways
Rural local roads
Fatigue
Urban crashes

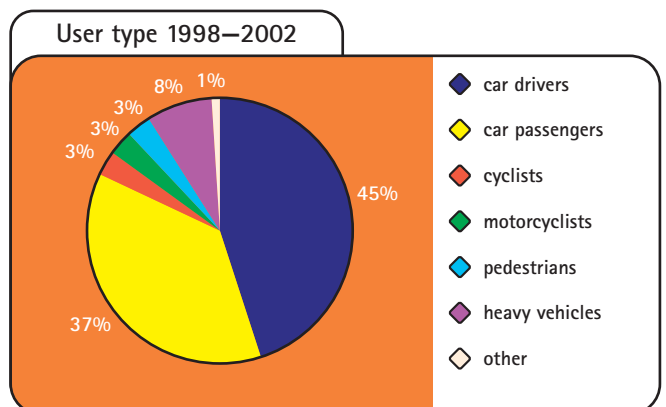
### Nationally

Speed
Alcohol
Failure to give way
Restraints

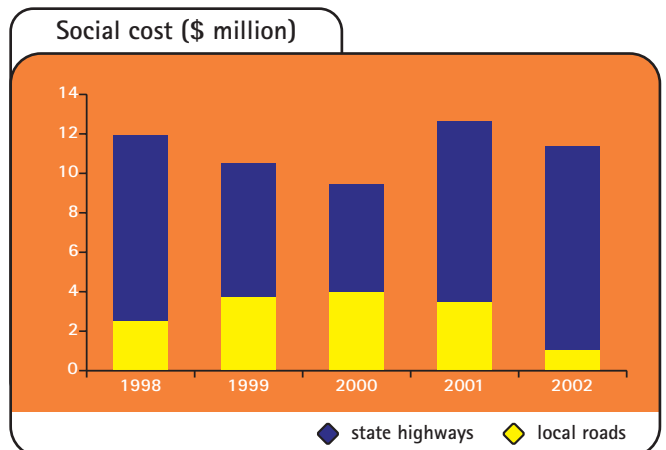
## 2002 road trauma for Waimate District

Deaths	2
Serious casualties	5
Minor casualties	29
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Fatal crashes	2
Serious injury crashes	5
Minor-injury crashes	12
Non-injury crashes	36

## Road casualties 1998–2002



## Estimated social cost of crashes\*



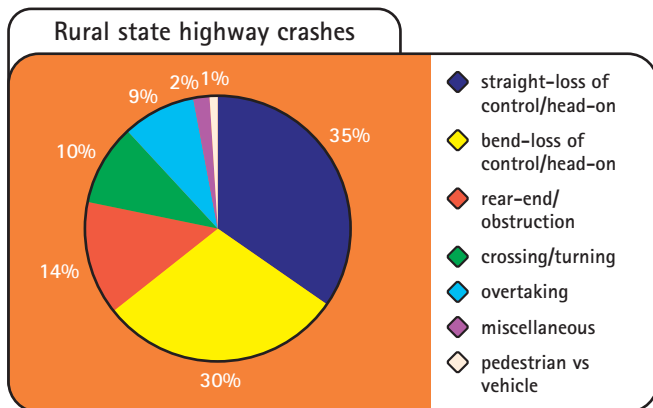
\* The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs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

# Rural state highways

Most of the crashes in Waimate happened on rural roads and over 70 percent of the rural crashes happened on state highways. The social cost of crashes on rural state highways in 2002 was \$3.9 million. In the last five years two people were killed, 29 were seriously injured and a further 70 received minor injuries in crashes on rural state highways.

Analysis of these crashes for the five years shows:

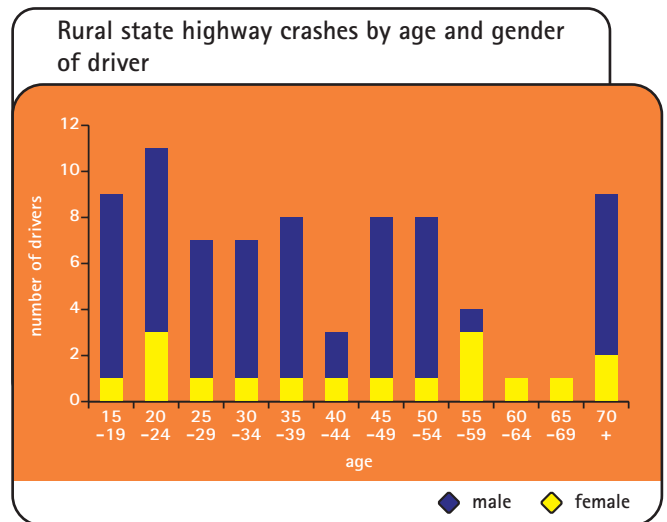
- 40 injury and 63 non-injury crashes were reported on SH 1; 22 injury and 11 non-injury crashes were reported on SH 82
- the most common crash types were loss of control on straight roads (35 percent) and on bends (30 percent)
- a high proportion (43 percent) occurred in twilight or darkness
- the most common driver factors contributing to the injury crashes were fatigue, poor observation and speed
- road factors, especially road slippery due to rain, frost or ice, also contributed to the crashes especially the loss of control crashes on bends.



Fatigue was the most common driver factor in these crashes and is highlighted as a separate issue later in this report. In these rural state highway crashes most of the fatigued drivers were males. Poor observation was the second most common factor in the rural crashes.

Poor observation includes drivers being inattentive or having their attention diverted, and drivers failing to see or look for other parties. Half of the drivers with these poor observation factors were over 60 years old. The other common driver factor was speed or travelling too fast for the conditions. This was a factor in eight of the injury crashes and mainly involved drivers under 25 years old (five males, two females).

Most of the drivers in the injury crashes were males. The following graph shows the age and gender of all drivers involved in injury crashes on rural state highways in Waimate.



## Recommended actions

### Education

- Encourage education campaigns aimed at improving rural driving skills, especially skills to retain control if a vehicle leaves the sealed roadway.
- Support campaigns on adjusting drivers' speed for different environment and road conditions.
- Encourage campaigns on the need to be fully alert when driving.
- Raise awareness of fatigue issues by community projects and continuing use of fatigue stops.

### Enforcement

- Support strategic enforcement campaigns targeting speed and alcohol on rural roads, especially over the weekends.

### Engineering

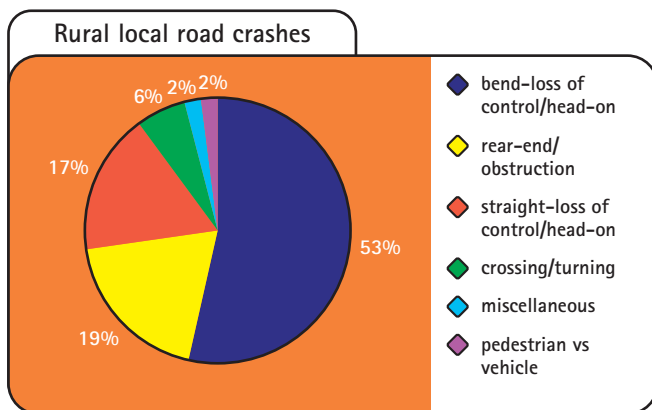
- Encourage shoulder widening to ensure roads are the appropriate width with good recovery areas for errant vehicles.
- Ensure advisory signs are appropriate, consistent and in the correct position. For local roads ensure consistency along routes.
- Maintain good road surfaces and drainage.
- Ensure roadside areas are kept clear of solid objects.
- Continue road realignment projects, where appropriate.

## Rural local roads

Nearly two thirds of the crashes on local roads in Waimate were in rural areas. The social cost of the rural local road crashes in 2002 was \$0.33 million. There have been no deaths in rural local road crashes but 14 people have been seriously injured and 18 have received minor injuries in the last five years.

Analysis of these crashes for the five years shows:

- 11 serious, 10 minor and 26 non-injury crashes were reported on rural local roads
- about a third of the crashes were on unsealed roads
- over half the crashes were loss of control/head-on on bends. Most of these were on moderate or easy curves and only seven on severe curves
- a high proportion (47 percent) happened in twilight or darkness
- the most common driver factors contributing to the injury crashes were speed and poor handling
- road factors also contributed to loss of control crashes, especially on unsealed roads with road width and surface condition the most common road factors.



The poor handling factors included loss of control when turning, under heavy braking, when returning to seal from unsealed shoulder and at the end of seal. These indicate drivers are travelling too fast for the conditions. Too fast for the conditions and too fast entering corners were the speed factors recorded in the crashes.

## Recommended actions

### Education

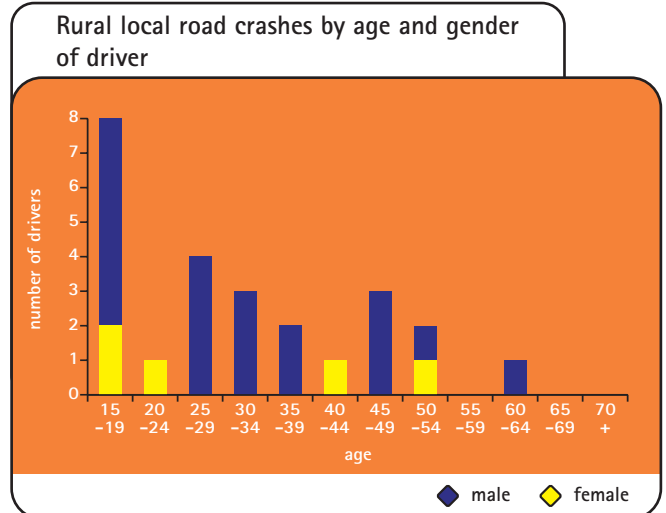
- Encourage education campaigns aimed at improving rural driving skills, especially skills to retain control if a vehicle leaves the sealed roadway.
- Support campaigns on adjusting speed for different environment and road conditions.
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- Raise awareness of fatigue issues by community projects and continuing use of fatigue stops.

### Enforcement

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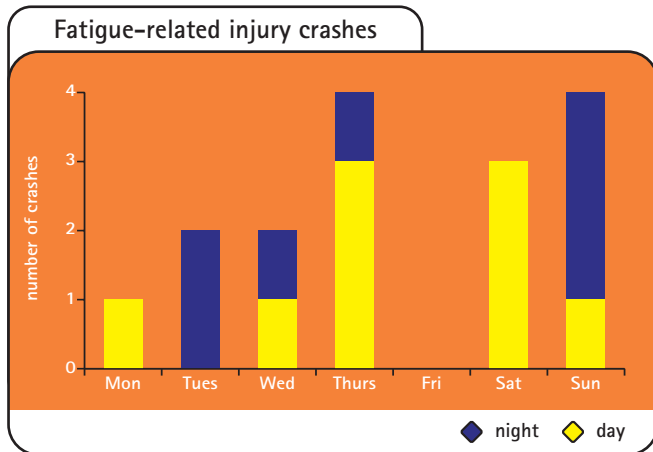
### Engineering

- Encourage shoulder widening to ensure roads are the appropriate width with good recovery areas for errant vehicles.
- Ensure advisory signs are appropriate, consistent and in the correct position. For local roads ensure consistency along routes.
- Maintain good road surfaces and drainage.
- Ensure roadside areas are kept clear of solid objects.
- Continue road realignment projects, where appropriate.



# Zzzz Fatigue

Fatigue was the biggest driver factor contributing to rural injury crashes in the Waimate District. Over the last five years 10 serious and six minor-injury crashes involved drivers who were tired or fell asleep.



Most of these crashes were on SH 1. The four that were on local roads were all on bends and all at night. A quarter of the fatigued drivers were also affected by alcohol. All except two of the fatigue crashes were single vehicle loss of control crashes.

Thirty-eight people were injured in the fatigue crashes. Eight drivers and five passengers were seriously injured and nine drivers and 16 passengers received minor injuries.

All except three of the fatigued drivers were males and all were driving cars or vans.

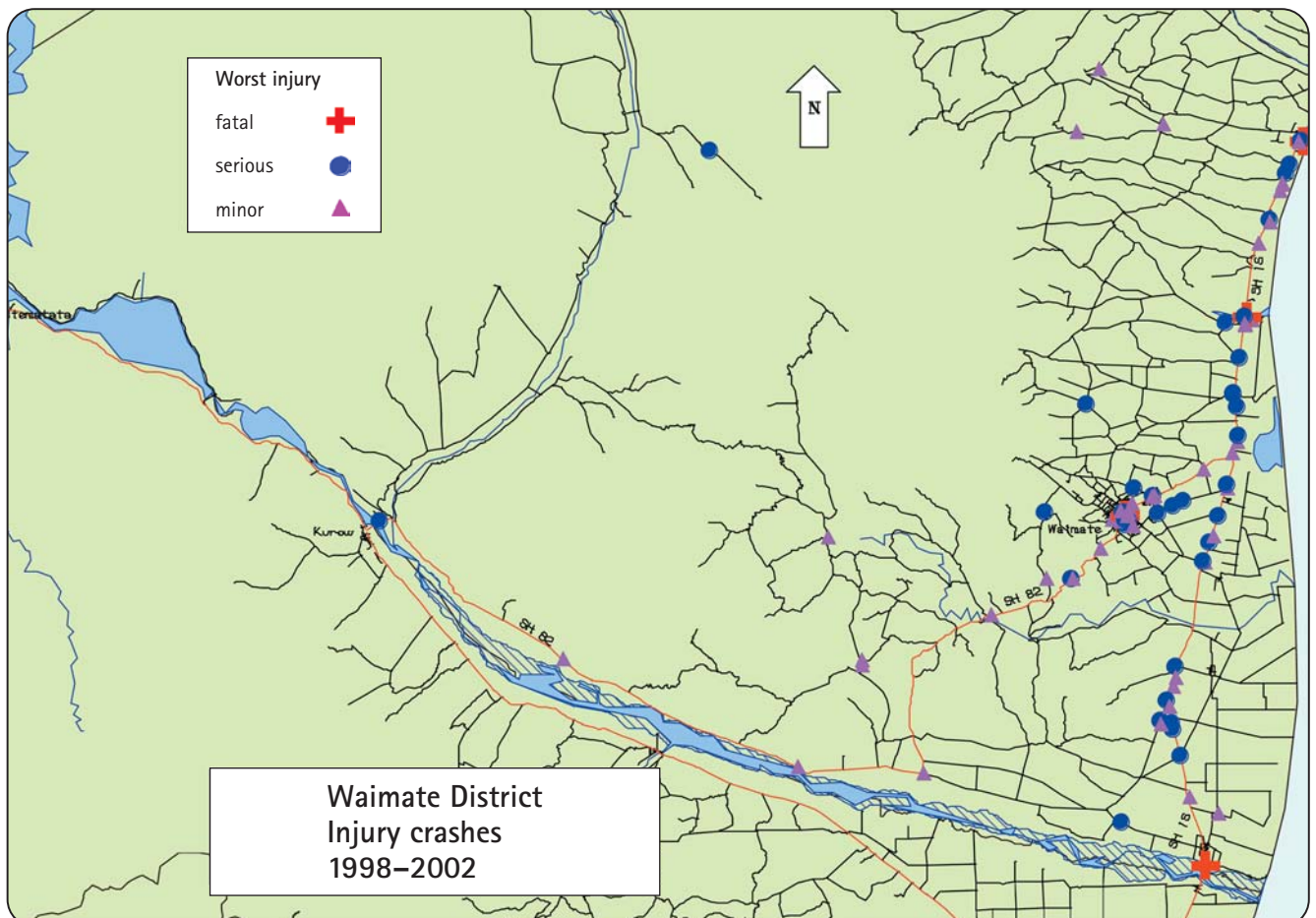
## Recommended actions

### Education

- Raise awareness of fatigue issues by community projects and continuing use of fatigue stops.
- Encourage drivers travelling on holiday to travel after a night's sleep.
- Use billboards to raise awareness on the road.

### Engineering

- Investigate the use of textured edge lines (rumble strips) on long straight sections of state highways.
- Provide consistent rural road environments with no surprises.
- Ensure an appropriate standard of delineation and curve warning on local rural roads.



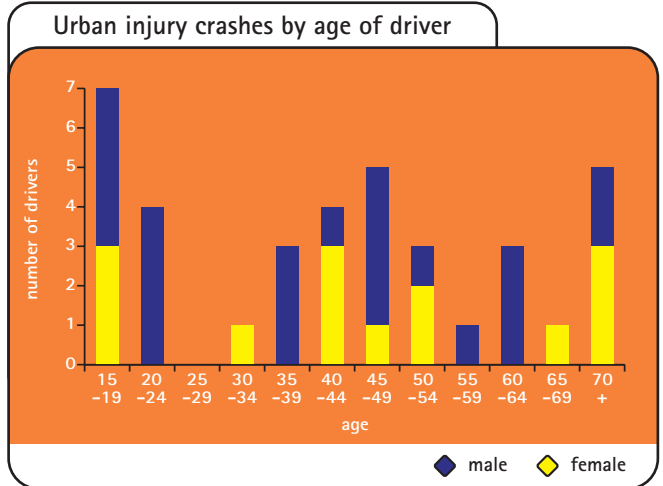
# Urban crashes

The two fatalities in the district in 2002 were both in 70 km/h urban areas. There were also two serious and two minor-injury urban crashes in 2002. The social cost of the 2002 urban crashes was \$7.1 million.

In the last five years there have been three fatal, six serious, 18 minor injury and 32 non-injury crashes reported in urban areas in the district. All except 11 of these were in Waimate township. About half the urban crashes were at intersections and the most common crash movement types were rear-end/obstruction or crossing/turning collisions.

The rear-end/obstruction crashes included collisions with parked vehicles, collisions with vehicles in queues or stopped to turn right, collisions with U turning vehicles and other miscellaneous manoeuvring collisions. Most of the crossing/turning crashes were right angle crossing collisions at crossroads with Stop or Give Way controls.

Drivers of all ages were involved in the injury urban crashes with relatively high numbers of male drivers under 25 years old and female drivers over 60 years old. Drivers are typically not seeing or looking for other road users until too late and are failing to give way.



## Recommended actions

### Education

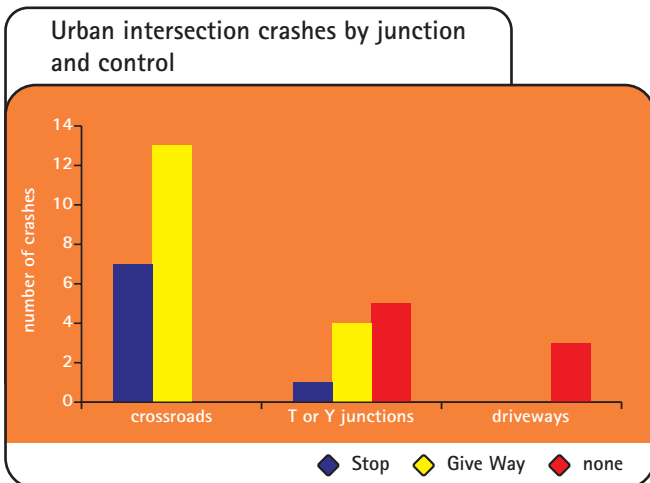
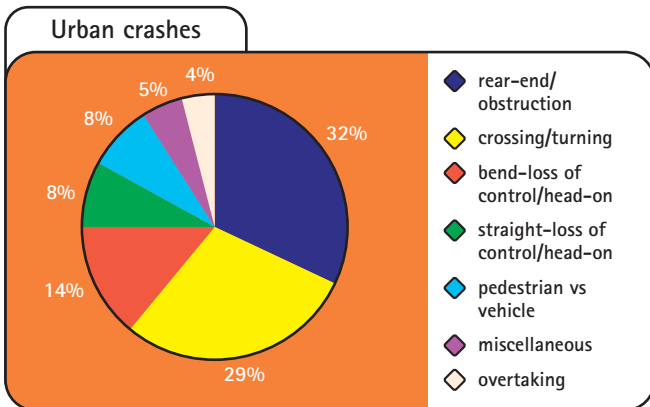
- Initiate and support campaigns on the need to give way at intersections.
- Support education and advertising campaigns on the right of way rules.
- Encourage education programmes to address driving at an appropriate speed, keeping a safe distance, signalling intentions and choosing a safe gap.

### Enforcement

- Support strategic enforcement campaigns aimed at crossroads and known problem intersections.
- Encourage enforcement campaigns targeting drivers who fail to stop or give way.
- Encourage increased enforcement of speed limits in 70 km/h urban areas.

### Engineering

- Conduct a safety audit/survey of intersection controls and visibility.
- Improve visibility at intersections.
- Research reasons why vehicles are failing to notice and give way to other vehicles.



# New Zealand Road Safety Programme

Reducing road trauma involves a multi-pronged approach, which includes education, engineering and enforcement. The New Zealand Road Safety Programme (NZRSP) is the primary planning and funding programme for road safety activity undertaken by the New Zealand Police, LTSA and community groups. Transfund New Zealand provides funding to Transit New Zealand and local authorities for roading projects through its National Land Transport Programme.

## Community projects

Through the Community Road Safety Programme (CRSP) the NZRSP provides funding for community development and community programmes to support road safety and to bring about positive and sustainable changes in community attitudes and behaviours. CRSP funding of community initiatives aims to encourage local involvement and ownership of road safety issues, and to target local resources and effort to local risks. This year's review of the programme initiates a re-focus of effort and funding into community development. This involves working with and within different communities of people to assist them in becoming aware of their own local road safety issues and developing solutions to achieve better road safety outcomes.

Funding from the CRSP for community initiatives in South Canterbury for the 2003/2004 year has been confirmed as follows. This funding is for joint South Canterbury projects in the Waimate, Mackenzie and Timaru Districts and includes the salary subsidy for the employment of a road safety co-ordinator.

Project	Funding
CAAP	\$30,000
Intersections/poor observation	\$18,000
Speed	\$15,500
Rural driving	\$7,000
Restraints	\$6,000
Driver fatigue	\$5,500
Safe With Age	\$3,320

In addition to project funding, a further \$77,300 has been allocated to the Canterbury Region for advertising to support community road safety initiatives. This funding is held by the LTSA and carries application criteria that must be met. Road safety co-ordinators can advise the criteria.

The Waimate District will also be involved this year in regionally funded projects as follows:

Project	General funding
Regional road safety co-ordinator	\$42,000
Small project fund	\$76,720
Fatigue	\$40,000
A & P show displays	\$24,000
Regional billboard project	\$18,000

## Road policing

Police enforcement hours to support community projects are now allocated to police community services hours rather than to individual projects. The delivery of these hours to support community projects will need to be negotiated by the road safety co-ordinator.

In 2003/2004 the Police are funded to deliver 4,330 hours of road policing in the Waimate District (the same as in 2002/2003) as follows:

Project	Police hours
Strategic – alcohol/drugs, speed, restraints and visible road safety enforcement	3,410
Traffic management including crash attendance, incidents, emergencies and events	590
School road safety education	80
Police community services	250

## Road environment

Transfund New Zealand's National Land Transport Programme 2003–2004 has allocations for minor safety projects on local roads and state highways in the Waimate District.

## Where to get more information

For more specific information relating to road crashes in the Waimate District please refer to the 1998 to 2002 Road Safety Data Report, or one of the contacts listed below:

### Contacts

Land Transport Safety Authority Regional Manager Dennis Robertson Phone 03 363 5661	New Zealand Police Strategic Traffic Manager Derek Erasmus PO Box 2109, Christchurch Phone 03 363 7417
Regional Education Advisor Bob Clements Phone 03 363 5677	Waimate District Council Rob Moffat PO Box 122, Waimate Phone 03 689 6874
Road Safety Engineer Steve Parry Phone 03 363 5677	Transit New Zealand Area Engineer Colin Hey PO Box 1479, Christchurch Phone 03 366 4455
Road Safety Co-ordinator Cat Marvin South Canterbury Road Safety Charitable Trust PO Box 522, Timaru Phone 03 684 8199 Mobile 027 438 6285	

Christchurch Regional Office  
Level 5, BNZ House, 129 Hereford Street  
PO Box 13364, Christchurch  
Phone 03 363 5666, Fax 03 363 5655  
[www.ltsa.govt.nz](http://www.ltsa.govt.nz)

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