

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 Hurunui district.

In the last five years, 261 injury crashes and 320 non-injury crashes were reported on roads within the Hurunui district. As a result of these crashes, 17 people died, 92 were seriously injured and 152 received minor injuries. However, apart from a couple of years mid-decade when numbers rose slightly, generally the number of crashes per year has not changed greatly.

Of these crashes, all but one of the fatalities, 86 of the serious and 133 of the minor injuries occurred on rural roads. The crashes occurred most commonly on a bend, as a result of loss of control or collision with another vehicle.

The person most likely to be injured in a crash in the Hurunui district was a male aged between 20 and 24 years of age, who was either a driver or a passenger in a car or van.

Friday and Sunday were the days a crash was most likely to occur in the Hurunui district, and the summer months (December to February) had more crashes than other months of the year.

Major road safety issues:

Hurunui district

Loss of control and head-on collisions on bends

Speed

Friday and Sunday

Fatigue

Nationally

Speed

Alcohol

Failure to give way

Restraints



2001 road toll for Hurunui district



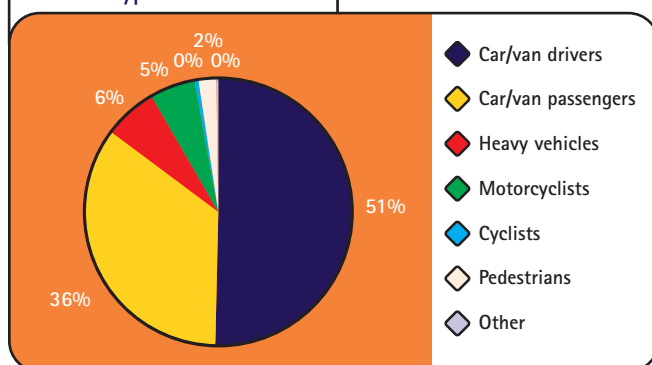
Deaths	3
Serious casualties	23
Minor casualties	52



Fatal crashes	3
Serious injury crashes	18
Minor injury crashes	31
Non-injury crashes	81

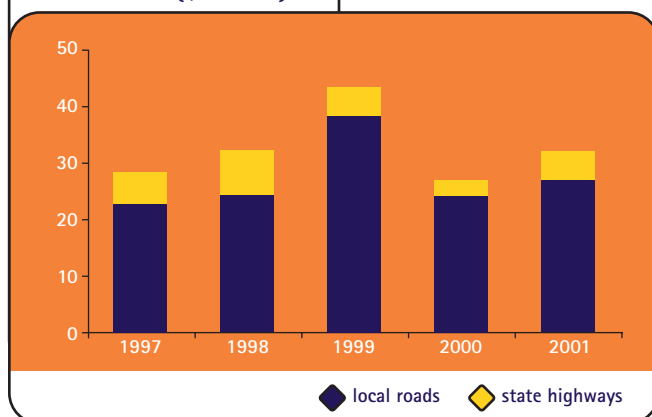
Road user casualties 1997–2001

User type 1997–2001

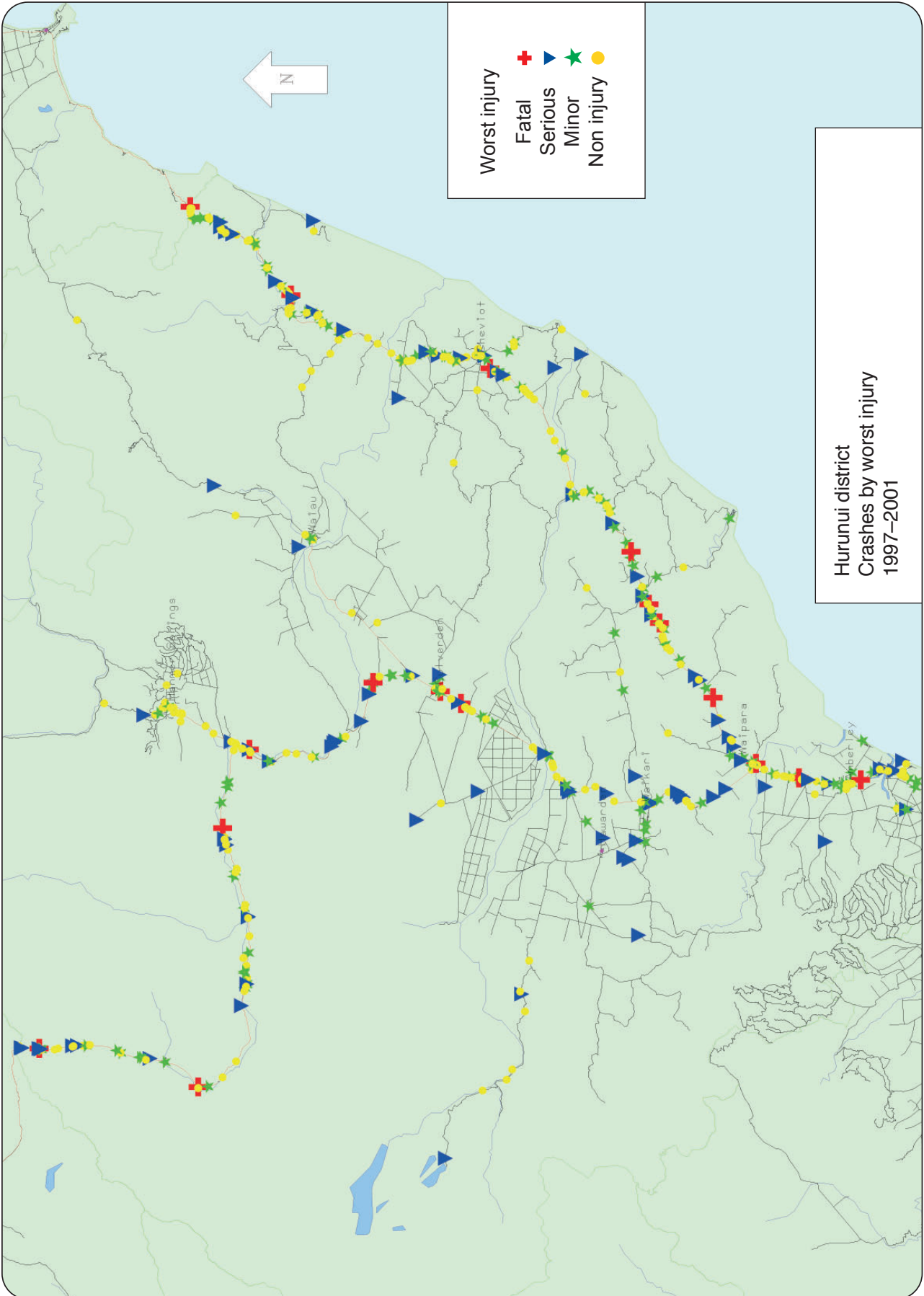


Estimated social cost of crashes*

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 2001 prices.





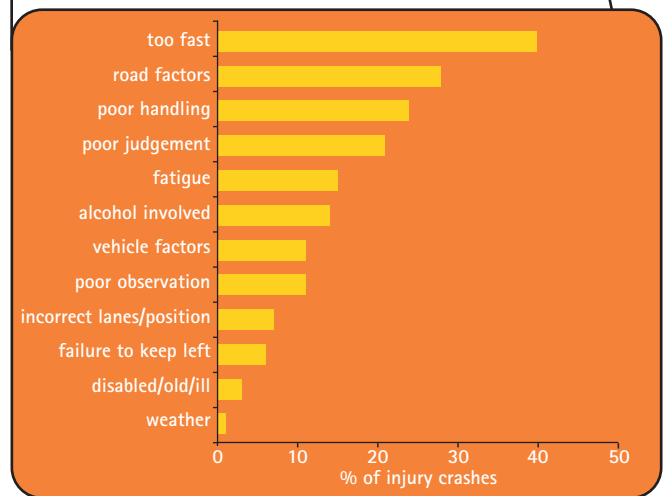
Loss of control and head-on collisions on bends

There has not been any significant change in the number of crashes on bends over the last five years. In rural areas the proportion of crashes occurring on bends has generally been slightly above that of similar authorities, and approximately 15 to 20 percent above the New Zealand rate. Just under a third occurred in darkness or twilight hours and the same for wet road crashes. Nearly four fifths occurred on state highways and almost all (97 percent) occurred on rural roads, ie high-speed environments.

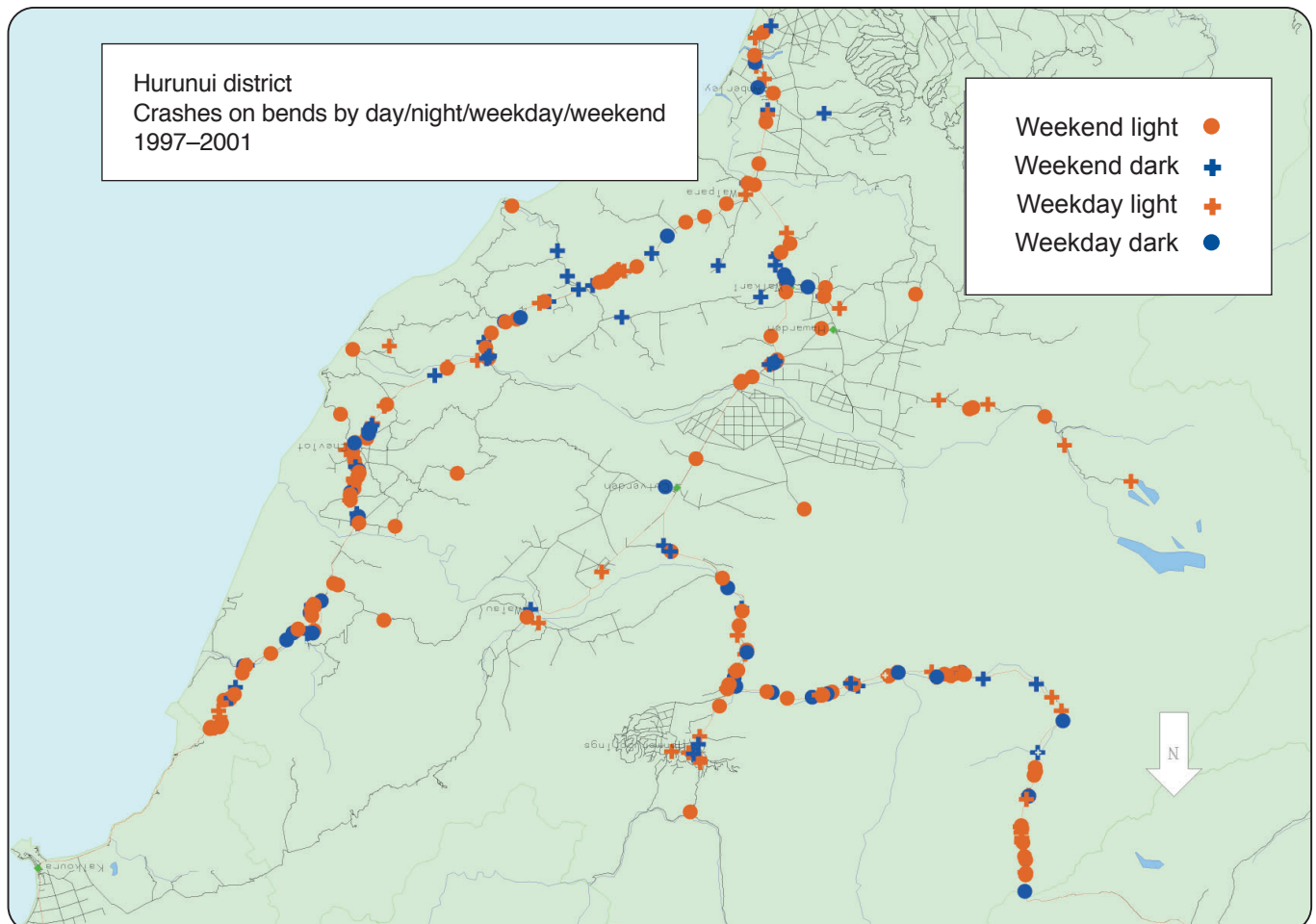
Four fifths of loss of control crashes on bends involved only one vehicle.

The most common driver factors involved in crashes on bends were travelling too fast for conditions (a factor in 40 percent of all injury crashes on bends), poor handling and judgement, fatigue and alcohol (see accompanying graph). Road factors (wet road, loose material on seal and ice) featured in between a quarter and a third of injury bend crashes.

Loss of control or head-on collisions on bends



Extensive work has been carried out on State Highway 1 in northern Hurunui in the last couple of years in the Hawkswood /Siberia Ford areas. These areas should be monitored to ensure crashes have in fact been eliminated and not simply migrated to the adjacent unchanged road.



➡ Recommended actions

- Introduce visible enforcement, particularly on straight stretches of roads prior to bends.
- Ensure grit is removed promptly from seal, and surface treatments are kept up to date.
- Ensure correct and easily visible delineation (chevrons and road marker posts).
- Ensure values are correct for advisory curve signs.
- Conduct awareness for driver campaigns on the need to adjust speed for the road and environmental conditions.

80 Speed

Eighty-five percent of all speed-related injury crashes in the Hurunui district involved losing control and/or colliding with another vehicle on a bend. The most common causes for this were poor handling, poor judgement and alcohol (just under a fifth). Nearly a quarter involved some sort of road factor, ranging from debris or water on the road to poor geometric design. Approximately 90 percent were single vehicle crashes.

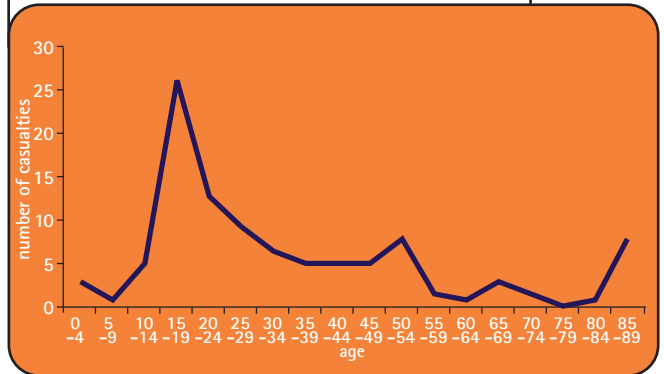
Around a third of all speed-related injury crashes occurred at the weekend, predominately Friday or Sunday afternoon. Approximately twice as many speed-related crashes occurred on state highways as on local roads and almost all were on rural roads.

Just over a third of the casualties in speed-related crashes were female. Casualty numbers were highest in the 15 to 19 year age group.

Speed-related crashes are not necessarily related to exceeding the speed limit. However, they do involve speed too fast for the conditions, whether difficult geometry (tight bends or steep hills) or slippery roads.

Targeting the straight stretches of road preceding winding country roads may act as a deterrent for drivers who tend to travel too fast in any environment, but only exceed the legal limit on straight roads.

Age of casualties in speed-related crashes



➡ Recommended actions

- Introduce visible enforcement, especially at peak traffic and target times.
- Ensure super-elevation is appropriate for radii of curves.
- Make sure there is good delineation.
- Participate in and support regional and national speed advertising.
- Create an awareness of the dangers of excessive speed and speed too fast for conditions.

Friday and Sunday

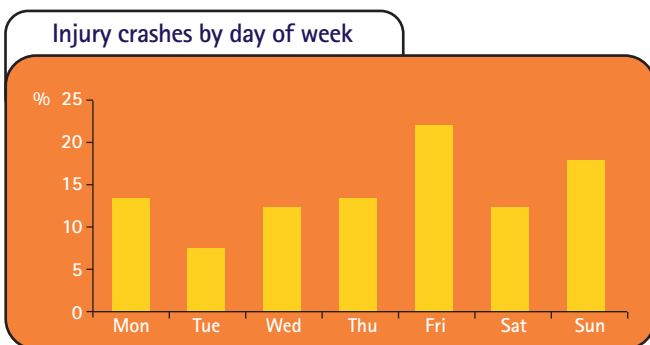
Friday and Sunday, particularly in the afternoon, were the most common days for crashes in the Hurunui district. Between 1997 and 2001 there were 72 injury and 95 non-injury crashes in the district. Casualties included four fatalities, 34 serious injuries and 70 minor injuries.

Saturday was not included in this analysis because of the lower number of crashes. Also it was felt that the Saturday driver, who might be driving for a short outing, would be different from a Friday or Sunday driver who could be driving long-distance for the weekend, or returning home from a trip away.

Of the injury crashes, three quarters occurred on state highways and nearly 90 percent on rural roads. Over half were loss of control or head-on crashes on bends, followed by loss of control on straight roads (about 15 percent) and miscellaneous other factors. Approximately one third of the crashes involved more than one vehicle, three fifths were single vehicle crashes and the remaining few involved collisions with a cyclist or pedestrian.

The most common factors involved in crashes included speed, (just under a quarter of all injury crashes on Friday and Sunday), inadequate check (approximately one quarter), poor judgement and poor handling (about a fifth each). Road factors such as wet road, loose shingle on the road and frosty conditions occurred in approximately a quarter of the crashes on these two days.

The 15 to 19 year age group had the highest number of casualties. More than a third of all casualties were female.



Recommended actions

- Introduce enforcement targeting peak travel time.
- Promote advertisement warnings of the dangers of speed, especially targeted to 15 to 19 year olds.

Fatigue

Three people were killed, 15 seriously injured and 24 received minor injuries in fatigue-related crashes in the Hurunui district in the last five years.

These crashes tended to be single vehicle loss of control crashes occurring on bends, straight roads, state highways and rural roads. Forty percent occurred in dark or twilight conditions, but most were on dry roads. Alcohol was the largest contributor to fatigue-related crashes (a contributing factor in just over a quarter of all fatigue-related crashes).

Just over half of all fatigue-related crashes occurred on State Highway 1, one third on State Highway 7 and the remainder on local roads.

Fatigue crashes did not feature as much during the weekend as other crashes, such as speed-related or loss of control crashes. Over the last five years they showed up more in the midnight to 8am period, followed by noon to 4pm. However, numbers were very small, making it difficult to form a definite comparison with other groups.

Twenty to 24 year-old males were the most common group injured, while females made up just under a third of all casualties.

Reporting is also a problem with fatigue-related crashes. A driver may not realise he or she nodded off before crashing, or may choose another excuse rather than admit to not being in a fit state to drive. Therefore, the actual number of fatigue-related crashes is likely to be higher than the number reported to the police.

Recommended actions

- Promote and support fatigue stops.
- Erect billboards to warn people of fatigue dangers.
- Ensure there are adequate pull-off points in areas away from urban fatigue stops.
- Promote strategies to avoid driver fatigue.

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 Hurunui district.

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

Project	Funding	Police hours
Road safety co-ordinator	\$11,000	
Community alcohol action programme	\$5,000	70
Speed	\$2,000	
Safe with age	\$1,000	
Restraints	\$1,500	90
A & P shows	\$1,500	

The Hurunui 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 160 police hours to support community projects, a further 6,850 hours will be delivered by police in the Hurunui 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 Hurunui 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 Hurunui 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 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

Tony Francis
PO Box 12-255, Christchurch
Phone 03 332 2722

New Zealand Police

Strategic Traffic Manager
Inspector Derek Erasmus
PO Box 2109, Christchurch
Phone 03 363 7417

Hurunui District Council

Manager Engineering Services
Bruce Yates
PO Box 13, Amberley
Phone 03 314 8816

Transit New Zealand

North Canterbury 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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