

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 over the five-year period 1998–2002. 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 Far North District. Four significant road safety issues for the Far North District are listed below along with the four major national issues, which are also relevant for the Far North District.

During the 1998–2002 period, 73 people were killed in 63 fatal crashes in the Far North District. Overall the Police reported 1,799 crashes of which 556 involved injury.

The cost to the Far North community is high with crash costs reaching \$94 million in 2002 and \$423 million over the five-year period.

The social cost of crashes increased considerably in 2002, particularly on the local road network where costs due to crashes more than doubled.

Most crashes in the Far North District involved vehicles losing control on a curve and these crashes were common on both rural and urban roads.

The district has a high proportion of casualties involving vehicle passengers and there is an increasing number of pedestrians being injured with 35 casualties over five years and 12 injured in 2002.

Alcohol remains a contributing factor in crashes with an increase in 2002.

Driving too fast for conditions on the open road can contribute to loss of control crashes, and high speeds in urban areas can put pedestrians and cyclists at risk.

Major road safety issues

Far North District

- Loss of control on curves
- Alcohol
- Passenger casualties
- Road and environmental factors

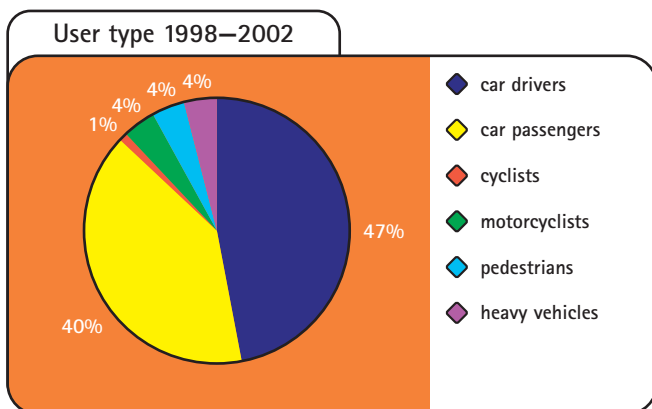
Nationally

- Speed
- Alcohol
- Failure to give way
- Restraints

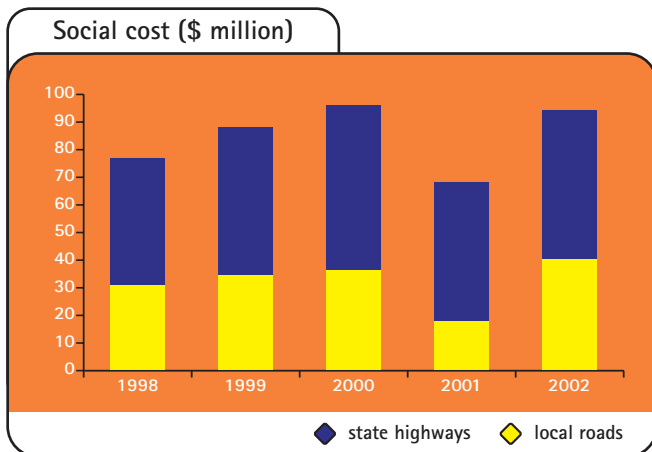
2002 road trauma for Far North District

Deaths	13
Serious casualties	65
Minor casualties	166
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Fatal crashes	12
Serious injury crashes	51
Minor-injury crashes	85
Non-injury crashes	307

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.



Loss of control on curves

The majority of crashes in the Far North District involved vehicles losing control on curves. They made up 55 percent of all injury crashes on open roads in the district and 32 percent on urban roads, much higher than in comparable districts and over twice the figure of 15 percent for urban areas in the rest of New Zealand. The most common contributing factors in these crashes at curves were road factors, alcohol and excessive speed for the conditions. Although excessive speed for conditions is usually a key factor in loss of control crashes, it has been reducing, particularly in open road crashes, from over 30 percent in 1999 down to 18 percent in 2002.

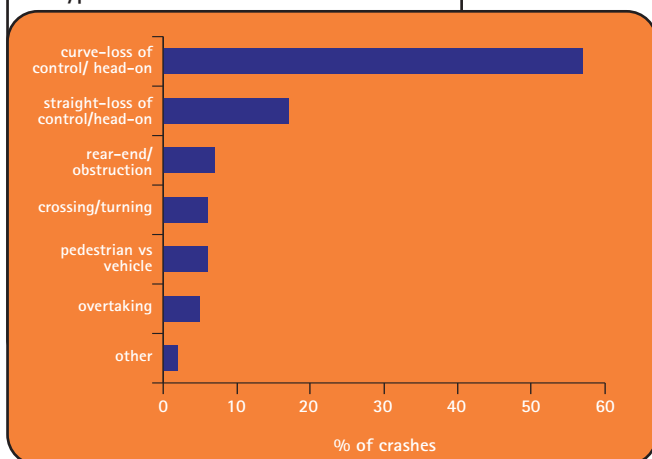
A higher proportion of loss of control on curve crashes occur in spring and early summer between October through to January with noticeably fewer crashes occurring over the winter months. However, in the winter months, over half of the crashes occur on wet roads. A slippery road is often cited as one of the contributing factors in the crashes. The proportion of night crashes also rises over the winter months from April through August.

The most common time for loss of control crashes on curves is mid and late afternoon, particularly on Sundays. Late Saturday night and early Sunday morning are also common times for crashes, corresponding with the peak times for alcohol-related crashes.

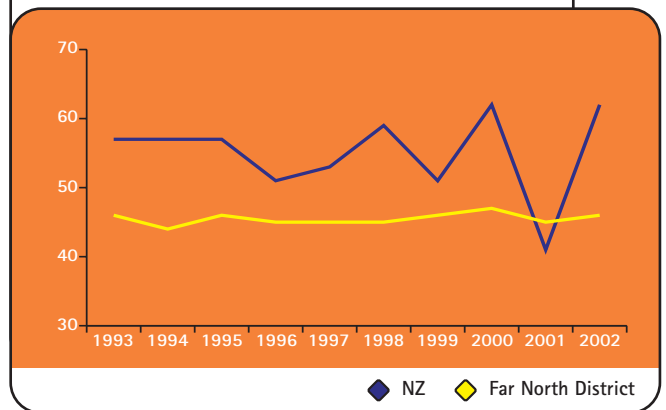
Most of the loss of control crashes in the district involved a single vehicle and many involved a collision with a roadside object which can increase the severity of injuries.

The age of the drivers involved in these crashes was spread over a wide range, mostly in the 15 to 45 year range.

Types of fatal and serious crashes



Rural road loss of control crashes on curves



Recommended actions

- Develop a priority list of sites that can be investigated for specific remedial action.
- Work to improve driver behaviour using education campaigns, billboards and pamphlets, ensuring that a wide range of organisations provide input.
- Continue enforcement of speed limits and increase police visibility on local road routes, targeting high-risk and identified routes.
- Develop a hierarchy of routes and provide high and consistent levels of lighting, delineation, surface friction and road markings on the routes at the top of the hierarchy.
- Provide clear zones or guard railing along identified routes to reduce the severity of injuries sustained in loss of control crashes.



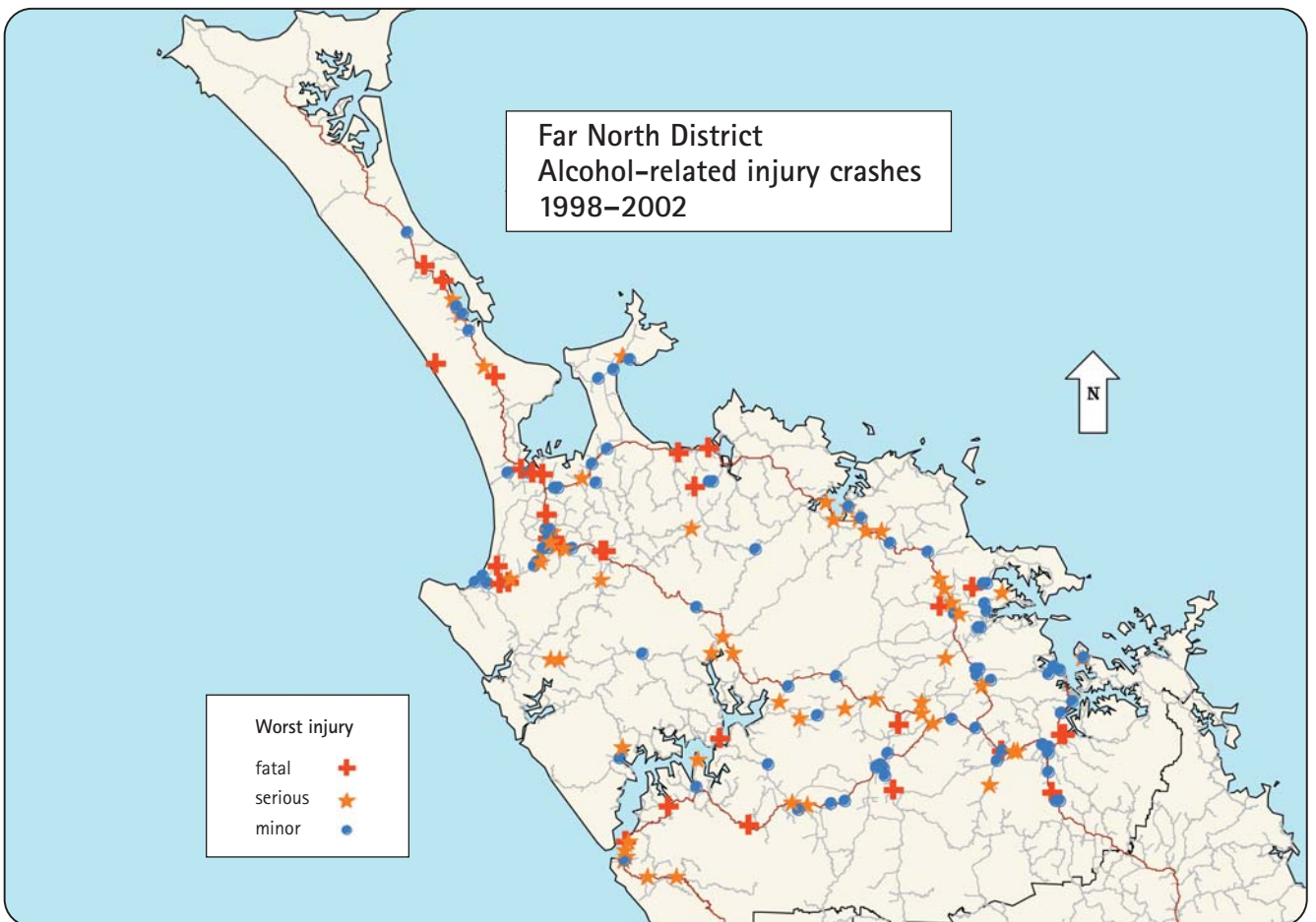
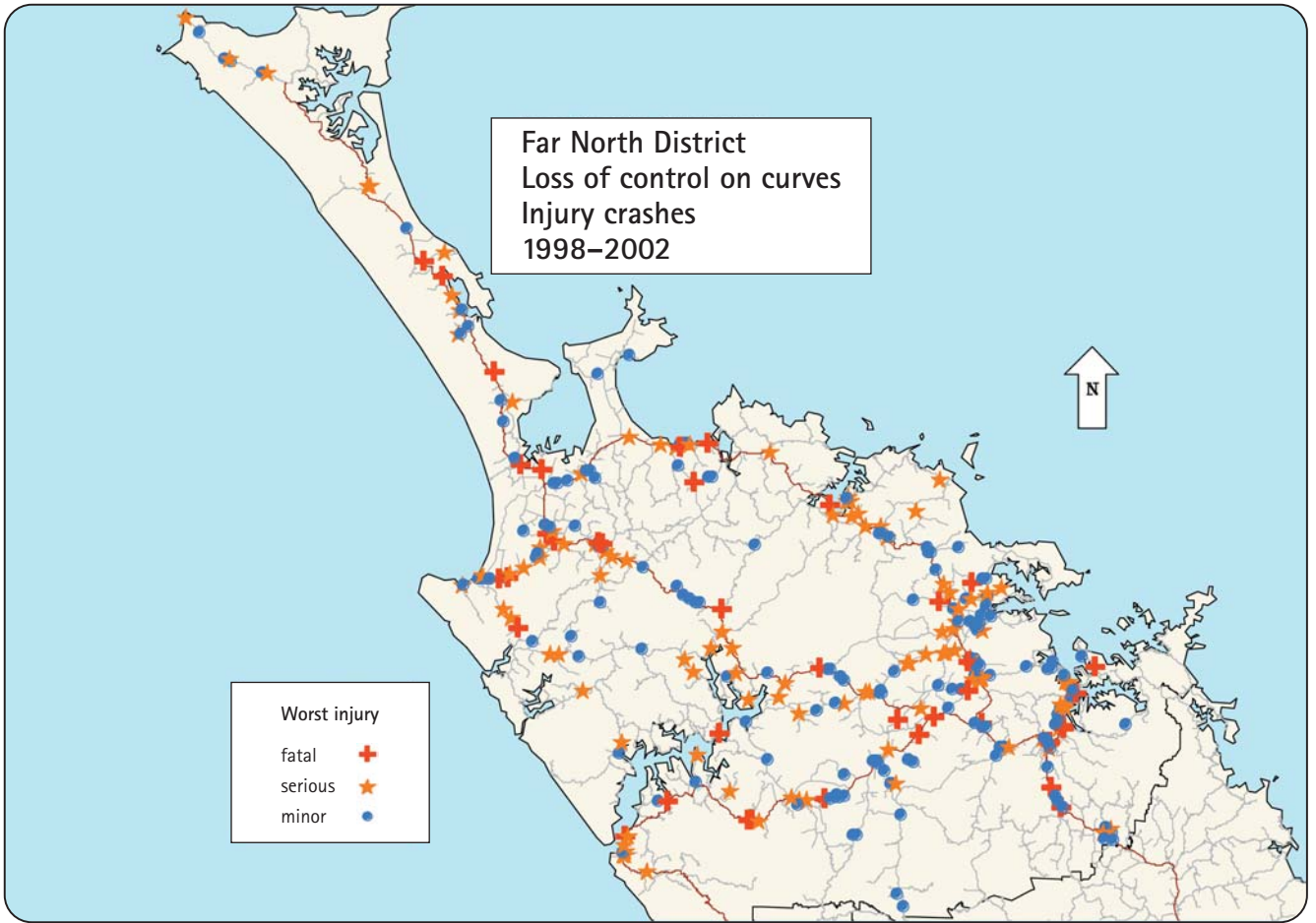
Alcohol

Northland as a region still has a clear problem with alcohol-related crashes and the work being done to combat drinking and driving must be sustained over the long term. Despite ranking ninth out of 14 New Zealand regions in terms of population and seventh in terms of road length, Northland ranks second from the top in the proportion of alcohol-related crashes on the open road and fifth on urban roads.

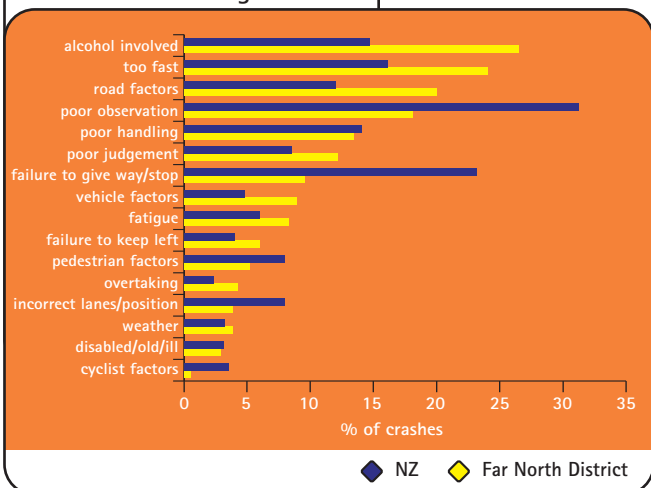
This is noticeable in the Far North District where alcohol-related crashes were higher in 2002 than in previous years. It was particularly evident on the open road where the number jumped from 18 in 2001 to 29 in 2002 – the highest tally for seven years.

The Far North District has 30 percent of urban crashes involving alcohol-impaired drivers; more than twice the national average of 14 percent. Drinking drivers are also contributing to crashes on the open road, with 25 percent involving alcohol-impaired drivers compared with a New Zealand average of 16 percent.

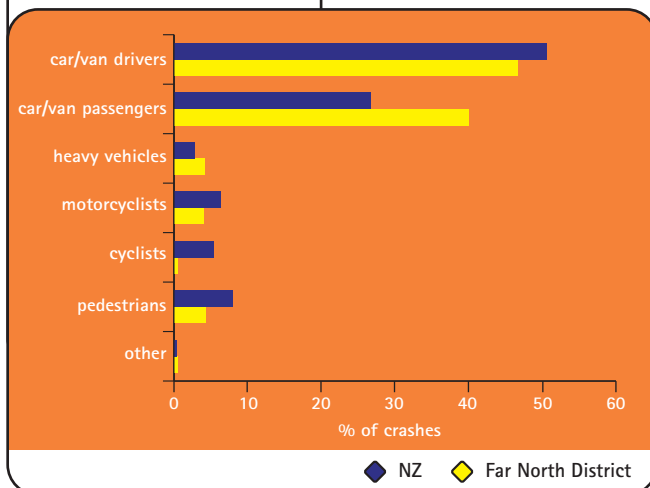
Driver age in alcohol-related crashes is again evident over a wide age group with the bulk of the alcohol-affected drivers aged between 15 and 45 years.



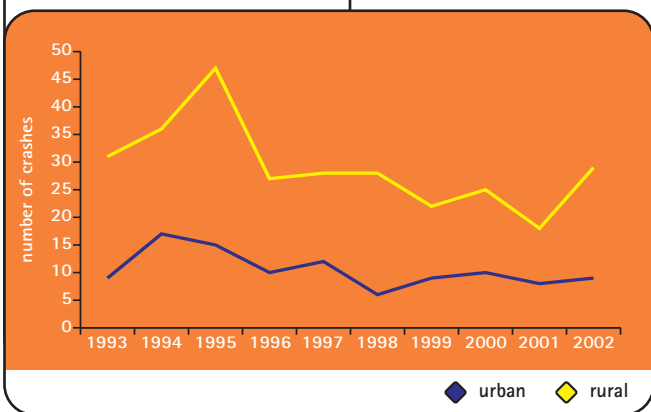
Crash contributing factors



Road-user casualties



Alcohol-related crashes



Recommended actions

- Continue with active and sustained alcohol enforcement.
- Expand the enforcement focus to include more rural parts of the district.
- Identify and target high-risk locations.
- Target the repeat drink-drivers.
- Promote sober drivers through community groups, sports clubs and schools.
- Support community initiatives that aim to reduce alcohol involvement.

Passenger casualties

In New Zealand, passengers make up 26 percent of road-user casualties and are the second biggest group of road users injured in crashes after drivers. In the Far North District, they make up 40 percent of casualties, nearly as many as driver casualties. Over 85 percent of passenger casualties occur in open road crashes.

The age of passengers injured in the Far North District peaks at 15 to 19 years as it does in other parts of New Zealand but the younger age group is over-represented in Far North District casualties.

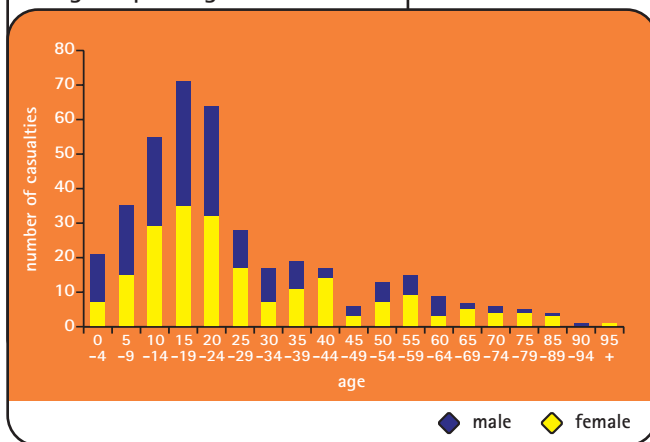
During the 1998–2002 period, 114 children under 15 were killed or injured, which is 28 percent of all passenger casualties and well above the rest of the country. Injuries are more likely to be severe or fatal amongst older passengers.

More of the males injured are in the younger age groups and more females are in the older age groups. Unlike other casualty types where males are over-represented, female passengers make up more than half of the passenger casualties in the district.

The severity of injuries is likely to be high if the vehicle occupants are not wearing safety belts.

It is important to improve the level of restraint wearing across Northland, particularly for children and rear seat passengers. Northland ranks below many other regions in the country for child restraint wearing.

Age of passengers in crashes



Recommended actions

- Continue with education campaigns and publicity to improve wearing rates of front and rear safety belts using expertise from a wide range of agencies and community groups.
- Continue with education and publicity to increase the use of child restraints.
- Conduct ongoing enforcement campaigns targeting restraint wearing and high-risk locations and times, especially for children who may be unrestrained.
- Identify high-risk drivers of vehicles where passengers are put at risk and use education and enforcement to target these drivers.
- Remove or protect roadside objects along hazardous routes to minimise injury severity.

Road and environmental factors

As previously mentioned, many crashes in the Far North District involved loss of control and many of these occurred on wet roads or at night. This is especially evident over the winter months when crash numbers reduce but the effect of the road environment increases. There is a high proportion of unsealed roads in the Far North District and with 14 percent of crashes on unsealed roads, this is double the national figure.

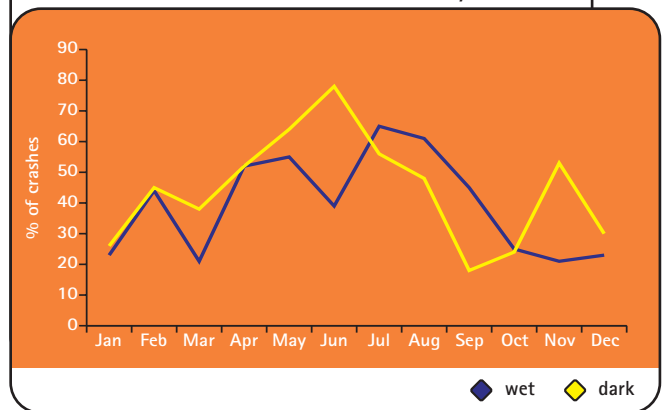
Northland is a difficult environment in which to build and maintain roads. Heavy rain and unstable geology mean that road repairs are often necessary.

Road factors are one of the highest contributing factors to crashes in the district, behind speed and alcohol, and the highest factor in loss of control crashes on curves.

On average, about 40 percent of crashes occurred at night, and in curve crashes this jumps to over 80 percent in the winter months. On urban roads, the proportion of crashes at night is high. On the local urban roads the number is increasing and, at nearly 50 percent, remains well above the national average.

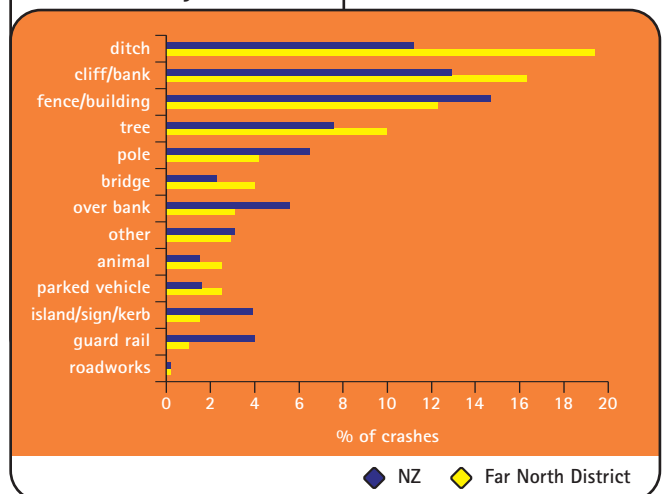
About 30 percent of crashes occurred on wet roads but, again for loss of control on curve crashes, the proportion is higher and climbs to over 50 percent in April, May, July and August despite there being generally fewer crashes in the district over the winter months.

Curve crashes on wet or dark roads by month



A roadside object is hit in over 65 percent of open road crashes. The roadside environment in the Far North District can be unforgiving, with ditches, fences, trees and poles close to the carriageway giving little opportunity for recovery. The severity of a crash can be influenced by factors such as whether obstacles in the roadside environment are struck and what type of object it was.

Roadside object struck



Recommended actions

- Improve roadmarking and delineation especially along high-priority and high-risk routes.
- Upgrade streetlighting along main routes.
- Monitor the skid resistance of roads and reseal before surface friction deteriorates.
- Prioritise routes for sealing based on reported crashes and supplementing with data from locally reported safety issues.
- Improve sight distance and position of new and existing driveways.
- Set up a programme to move poles and other roadside obstacles away from the carriageway at high-risk locations.
- Install guard rails on bridges and at other structures or hazards.
- Increase awareness of the need for drivers to take account of the changing road and weather conditions.

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 Road Safety Programme

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.

CRSP funding for the 2003–2004 year in the Northland Region has been confirmed as follows.

Project	Funding
Community development	\$234,250
Community programmes	\$134,750

Community initiatives across the region will be delivered to address the high-risk issues of alcohol speed, restraints (with emphasis on child and rear seat passengers) and young driver behaviour. Other local road safety issues can also be addressed at a community level using this programme.

In addition, an allocation of advertising funding to support community initiatives is also available. This separate funding is administered by the LTSA and specific application criteria must be met. The funding criteria can be supplied by the regional education advisor at the address provided below.

Road policing

In the 2003–2004 year 16,875 hours will be delivered by police in the Far North District as follows:

Project	Police hours
Strategic – alcohol/drugs, restraints, speed and visible road safety enforcement	12,565
Traffic management – crash attendance events, incidents, emergencies and disasters, traffic flow supervision	2,830
School road safety education	800
Police community services	680

Road environment

The LTSA's crash reduction monitoring database shows that works implemented as a result of crash reduction studies have reduced crashes at the study sites by 38 percent in the Far North District (38 percent at state highway sites and 40 percent at local road sites).

Recommendations from recent studies should be implemented and further studies undertaken to consider mass action or local area traffic management to reduce crash problems in the district.

References

Far North District Road Safety Report 1998–2002

LTSA Crash Analysis System

Where to get more information

For more specific information relating to road crashes in the Far North District, please refer to the 1998 to 2002 Road Safety Data Report or the Land Transport Safety Authority Crash Analysis System, or contact the people or organisations listed below:

Contacts

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