road safety issues

The 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 key road safety issues in the Far North District.

The annual cost of road crashes in the Far North District is significant at around $90 million each year. In 2003, the social cost of crashes was $94.2 million (about $1.8 million for each week of the year). Efforts to improve reporting have resulted in an increase in the number of crashes reported in 2003 and comparisons with previous years will be difficult. Therefore, this report will concentrate on data for the five-year period rather than identifying emerging problems in 2003.

Between 1999 and 2003, the main crash type was drivers losing control on curves. Factors that were over-represented in crashes included alcohol, travelling too fast for the conditions, road conditions and pedestrian factors. Car drivers were the main group of casualties followed by car passengers. However, pedestrians are a group that have more than the expected share of casualties. Males are more commonly injured but females still make up around 40 percent of the casualties. From the information available, Maori make up about 45 percent of casualties in open road crashes and 58 percent in urban crashes.

The peak time of the year for crashes in the district was December and January with a smaller peak in April and May. Crashes occurred more often on Fridays and Saturdays as well as a peak on Wednesday afternoons.

Major road safety issues

Far North District

Loss of control on curves
Alcohol
Passenger casualties
Road and environment factors

Nationally

Speed
Alcohol
Failure to give way
Restraints

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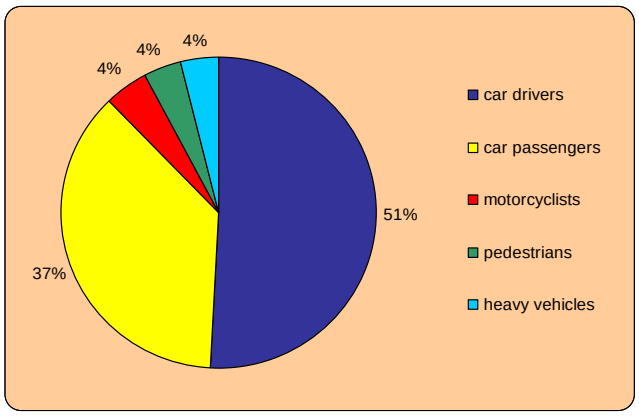
2003 road trauma for Far North District

Deaths	10
Serious casualties	63
Minor casualties	277
Fatal crashes	9
Serious injury crashes	45
Minor injury crashes	184
Non-injury crashes	348

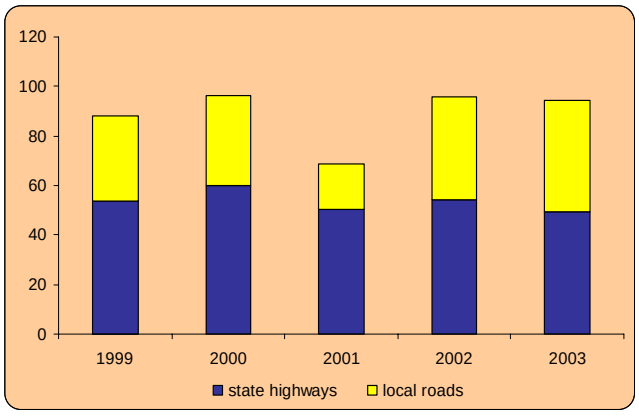
Road casualties 1999–2003

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.

LAND transport safety AUTHORITY

Factors that cause crashes or increase the severity of injuries in crashes need to be addressed as road safety issues. For instance, lack of restraint wearing can dramatically increase the possibility of serious injury to vehicle occupants.

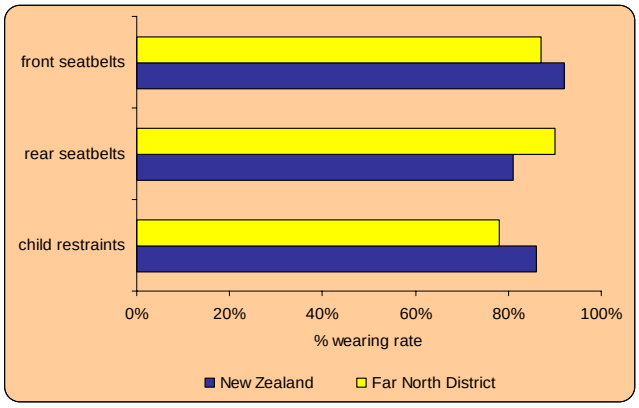
The severity of injuries sustained by passengers in vehicles (not including the drivers) for each of the last five years in Far North District is shown in the table below.

	Fatal	Serious	Minor
1999	7	18	55
2000	3	18	86
2001	2	19	63
2002	7	27	66
2003	2	18	86
Total	**21**	**100**	**356**

Overall, the use of restraints has improved markedly in the Northland Region, particularly in the use of child restraints. The Far North District has lagged behind but is also showing improvement.

There are a number of community programmes underway that work with people to ensure that they or their children always use restraints when travelling in a vehicle. The road safety co-ordinator is involved in these programmes. In addition, the Police are rigorously enforcing lack of restraint wearing and have moved to a 'no more warnings' regime.

Restraint wearing rates



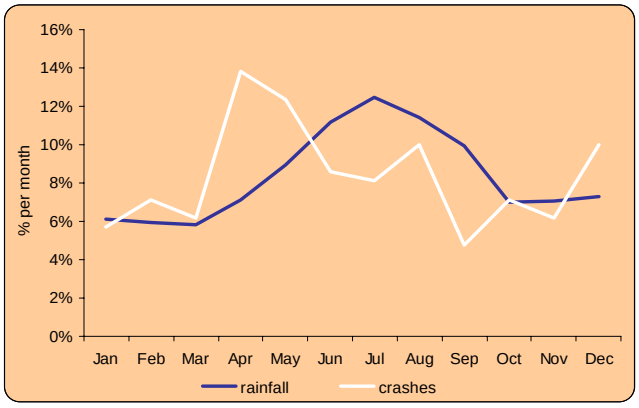
Road and environment factors

Road and environmental factors often contribute to the problem of loss of control crashes, particularly on curves.

Road factors are common in the Far North District in both urban and open road crashes and are the second most common contributing factor in open road crashes.

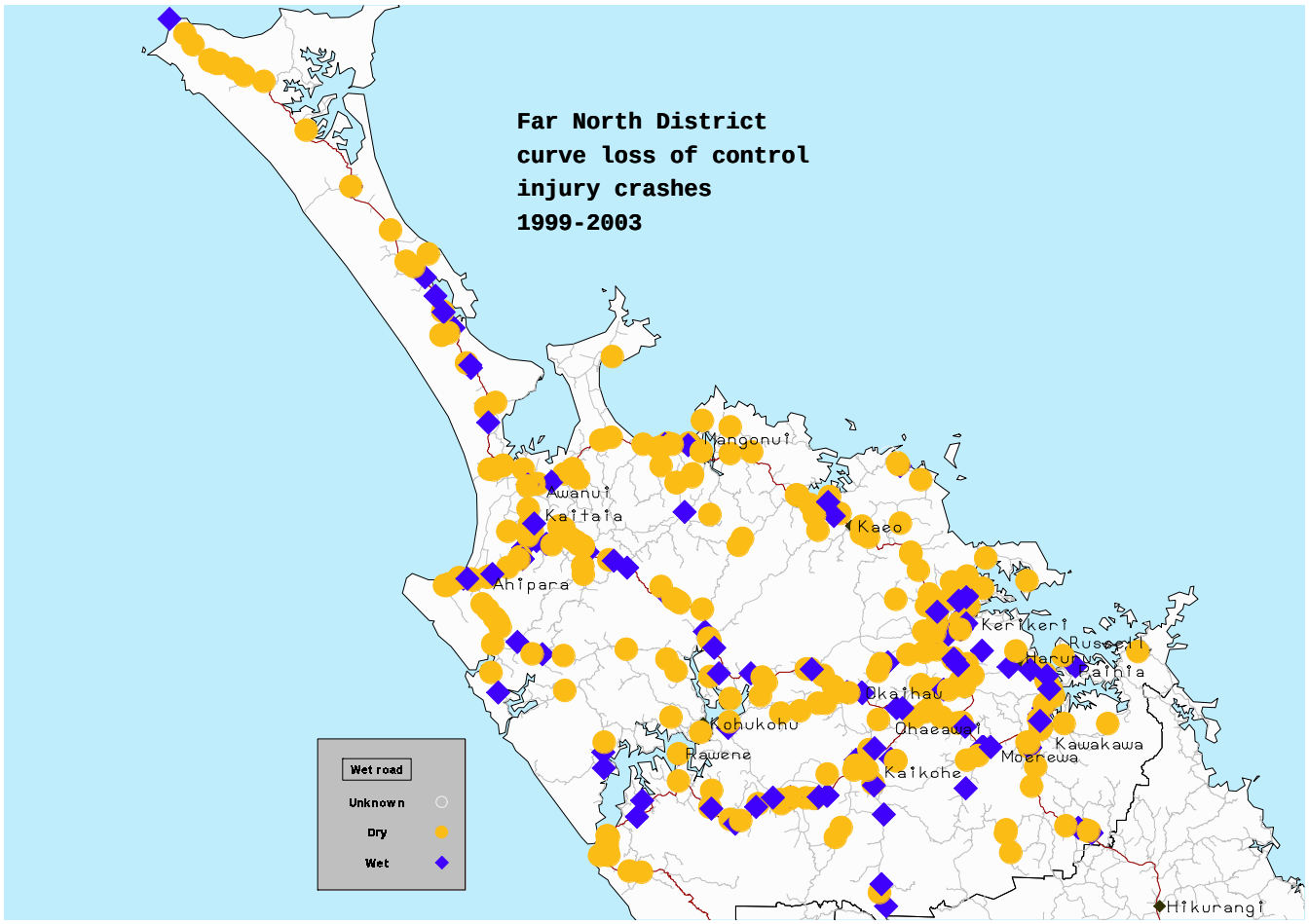
The most common road factor is where the road surface is slippery due to loose material on the sealed surface, an unsealed road surface, a worn or polished surface or mud, oil or other contaminants on the road making it slippery. This usually becomes evident during wet weather and is often more pronounced when wet weather follows a long dry spell when stone chips become polished and contaminants have built up on the surface without being regularly washed away.

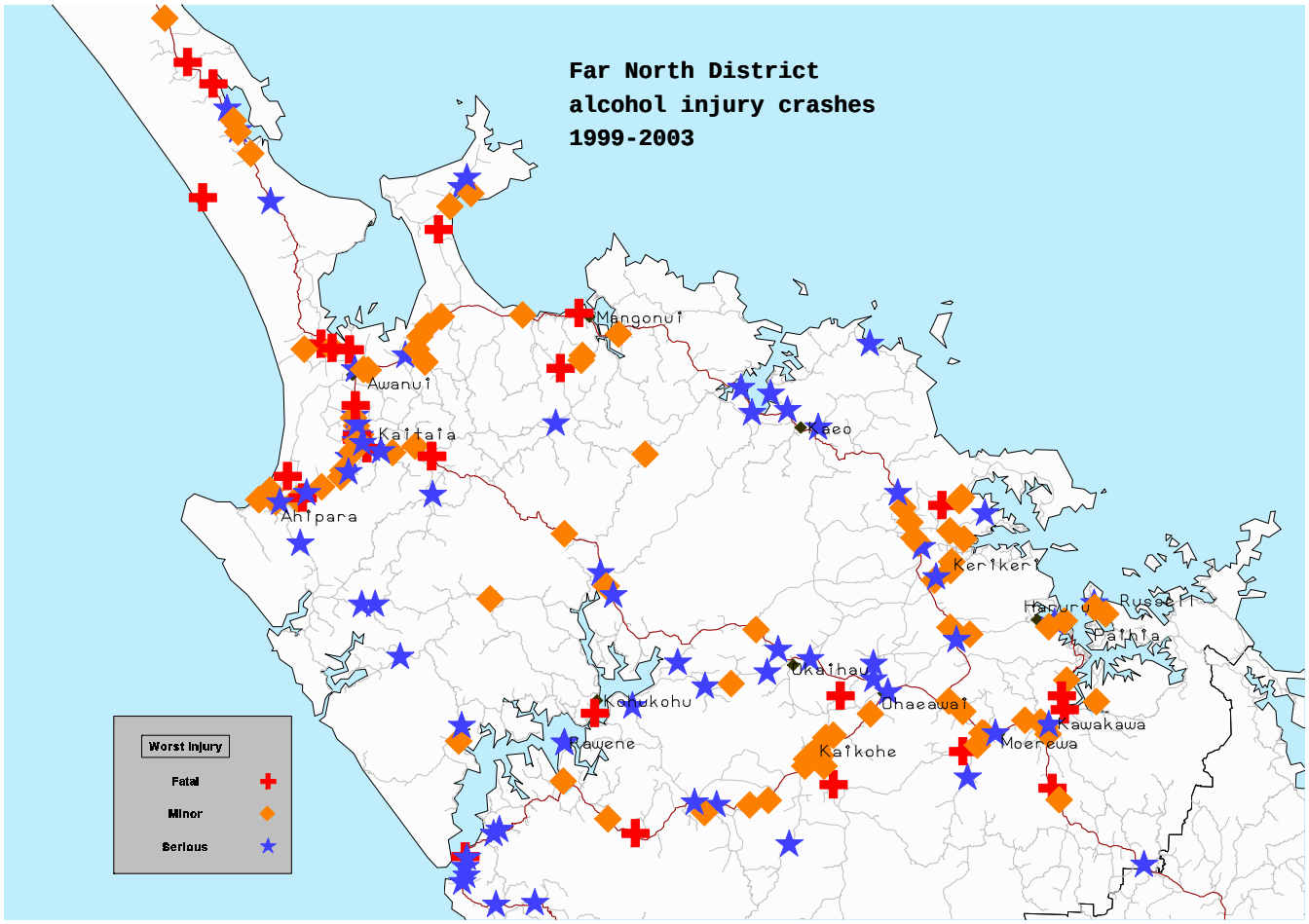
Wet road crashes by month



Roadwork sites can be unsealed or slippery. It is important that roadwork sites are signposted to warn of the presence of a specific hazard. It is also important that roadworks are only signposted when there are hazards present. If not, the signs and associated speed limits will soon lose credibility with motorists.

Traffic management plans of roadwork sites and temporary speed limits must be submitted to the road controlling authority for approval before the job is commenced.


Far North District
curve loss of control
injury crashes
1999-2003
Wet road
Unknown
Dry
Wet
Mangonui
Awanui
Kaitaia
Kaeo
Ahipara
Kerikeri
Russell
Paihia
Okaihau
Kohukohu
Ohaeawai
Kawakawa
Rawene
Moerewa
Kaikohe
Hikurangi

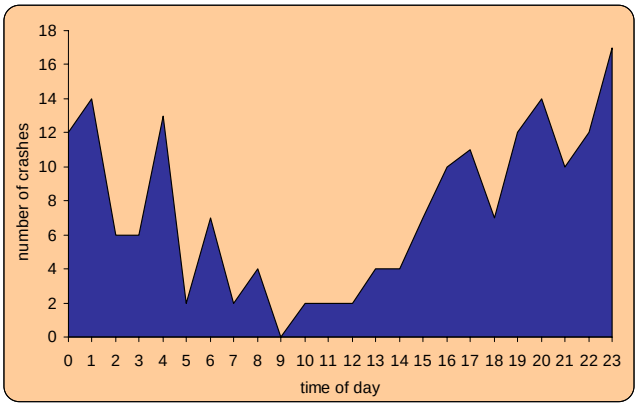

Far North District
alcohol injury crashes
1999-2003
Worst Injury
Fatal
Minor
Serious
Mangonui
Awanui
Kaitaia
Kaeo
Ahipara
Kerikeri
Russell
Paihia
Okaihau
Kohukohu
Ohaeawai
Kawakawa
Rawene
Moerewa
Kaikohe

Alcohol

The influence of alcohol has traditionally been a common problem in Northland Region crashes where 34 percent of serious injury and fatal crashes are alcohol-related compared with a national figure of 21 percent.

Northland, Bay of Plenty and Gisborne stand out as regions with high alcohol involvement in crashes. Every other identified road safety issue will be aggravated by the involvement of alcohol.

Alcohol-related crashes by time of day



Alcohol-related crashes in the Far North District have been reducing in the last five years but there is still a long way to go. Police have set up a Northland-based traffic alcohol group and are working to increase the enforcement presence in the Far North District. Alcohol involvement in urban crashes has reduced but alcohol in open road crashes is not improving and the severity is made worse by the higher speeds involved.

Common areas for alcohol-related crashes are around Kaitaia, Ahipara, Awanui and Houhora. The 43 km section of highway from Paparore Road to Ngataki has been identified as a problem route in recent studies where 71 percent of fatal crashes and 39 percent of injury crashes were alcohol-related. Other areas with high alcohol-related crash numbers are around Kaingaroa, Waipapa, Kaikohe and Omapere. It is important that communities take responsibility for reducing the level of drink-driving amongst their families, friends and neighbours.

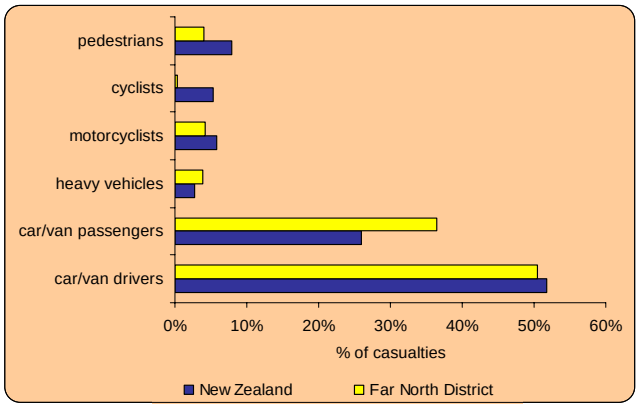
Alcohol-related crashes occur over a broad time period but more often before 5 am and after 4 pm. They occur more often on Saturdays or Sundays and more alcohol-related crashes occur in October and November.

Alcohol-affected drivers causing crashes in the Far North District are predominantly 16 to 18 years old. However, there is no significant reduction in the age of alcohol-affected drivers until after the mid-40s age group.

Passenger casualties

Passengers injured in crashes are more common in the Far North District than in the Whangarei or Kaipara Districts. On rural roads they make up 39 percent of road user casualties and on urban roads 28 percent. The number of passengers killed in crashes is high in the Northland Region. They make up nearly a third (31 percent) of road users killed, compared with the Auckland Region where passengers make up less than a quarter (22 percent) of road users killed.

Road user casualties

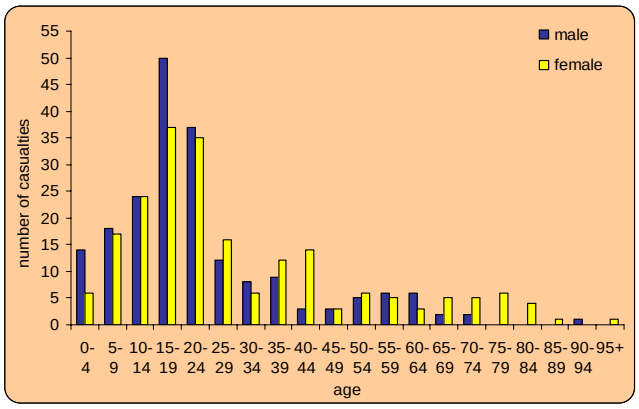


Passengers are injured in the types of crashes that are common in the district such as loss of control on curves. If passengers are in a vehicle with an alcohol-affected driver or a driver that is speeding, then they are likely to be killed or injured in a crash.

Adults can choose not to travel with these drivers but children often do not have that choice.

Passengers injured in crashes in the Far North District are mostly aged between 15 and 25 years but children under 14 years old are more common as casualties than in other parts of the country.

Age and gender of injured passengers



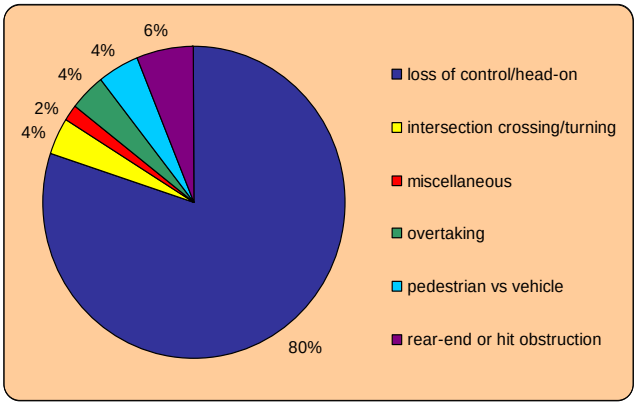
Loss of control on curves

Loss of control on curves is an ongoing problem on Northland roads, although numbers have changed in recent years. Loss of control crashes on curves dominated the Far North District data, making up nearly 60 percent of all open road crashes. Although other similar authorities have many crashes of this type, the incidence in the Far North District is significantly higher.

Loss of control on curve crashes are also the most common crash type in urban areas. In many other districts, intersection crashes are usually the major urban crash type but this is not the case in the Far North District.

The number of crashes reported on unsealed roads increased markedly in 2003.

Percentage of social cost by crash type



Drivers aged between 15 and 25 years are the main contributors to the loss of control crashes in the district.

The most common factors in loss of control crashes are alcohol, travelling too fast for the conditions, and road or environmental factors.

Crashes such as loss of control on curves have three components:

- what happens before a crash that results in its occurrence
- what happens during a crash that contributes to how severe it is and how severe the injuries are
- what happens after a crash that can minimise the harm caused or prevent further similar crashes.

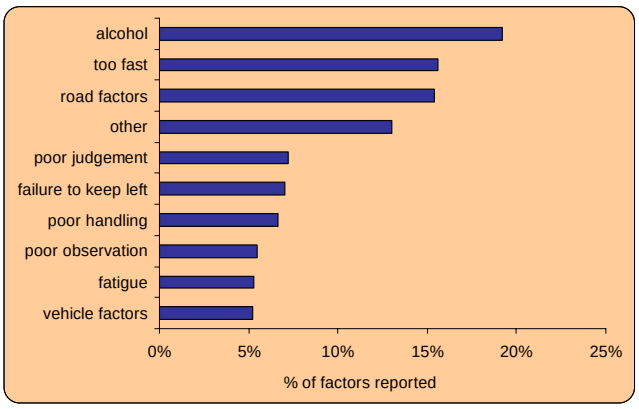
What happens before the loss of control on curve crashes can be affected by driver factors, environmental factors and vehicle factors. Common driver factors include driving too fast for the conditions, and alcohol. Common road factors include wet and/or slippery surface, poor delineation or lighting, and lack of shoulder for recovery space.

Vehicle factors include worn tyres, uneven tyre pressure, puncture or blowout, and steering or suspension faults.

What happens during a crash can be affected by driver factors such as whether the driver is wearing a safety belt and how skilled the driver is at controlling the vehicle. Environmental factors can increase the severity of a crash and include an unprotected roadside environment such as steep side-slopes into ditches, trees or poles close to the roadside, and solid structures such as bridges without guard-rail protection. Vehicle factors include whether the vehicle is equipped with airbags, an antilock-braking system, or a strong occupant protection structure.

What happens after a crash is where emergency services need to be their most efficient in preserving life, reducing further harm and investigating causes. The public can also contribute by ensuring that the Police are informed of every crash. When equipped with the best crash information, road controlling authorities, the Police and road safety co-ordinators can set up systems to improve the road environment, driver education and vehicle design/standards requirements. This will ensure there is less likelihood of similar crashes occurring in the future.

Factors in loss of control crashes



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 48 percent in the Far North District (49 percent at state highway sites and 46 percent at local road sites).

Recommendations from recent studies should be implemented as soon as possible. Analysis of the crashes at all completed sites should be undertaken regularly to ensure that safety has been improved and sites re-examined if no improvement has occurred.

Where to get more information

For more specific information relating to road crashes in the Far North District, please refer to the 1999 to 2003 Road Safety Data Report, the LTSA's Crash Analysis System or contact the LTSA as listed below:

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