KAIPARA DISTRICT

JULY 2004

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 Kaipara District.

The cost of road crashes in the Kaipara District has averaged around $31 million each year for the past five years. The 2003 figure was considerably less than this at $20.3 million. Efforts to improve crash reporting have resulted in an increase in the number of crashes reported in 2003. The number of minor injury crashes increased by about 65 percent in 2003 compared with the previous four years, and non-injury crashes rose by 30 percent. However, fatal and serious crashes reduced by 60 percent and 43 percent respectively, indicating improved reporting rates for minor and non injury crashes.

Between 1999 and 2003, the main crash type was drivers losing control on curves. Factors that were over-represented in crashes included alcohol, fatigue, road conditions, and vehicle factors. Due to the large size and small population of the district, most crashes occurred on the open road and on state highways. However, the number of crashes on local roads has risen in recent years.

Road users injured were mostly car drivers, followed by car passengers, particularly children and young women.

Peak months for crashes were January, April, October and December. Crashes occurred mostly on Fridays and Saturdays as well as a peak on Thursday afternoons.

Major road safety issues

Kaipara District

Loss of control on curves

Alcohol

Road and environment factors

Passenger casualties

Nationally

Speed

Alcohol

Failure to give way

Restraints

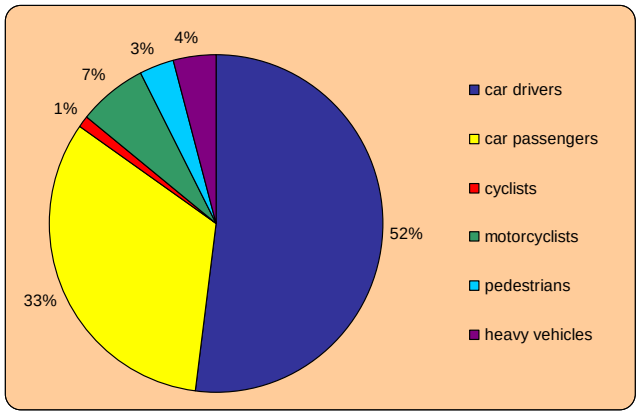
2003 road trauma for Kaipara District

Deaths	2
Serious casualties	11
Minor casualties	72

Fatal crashes	2
Serious injury crashes	9
Minor injury crashes	46
Non-injury crashes	96

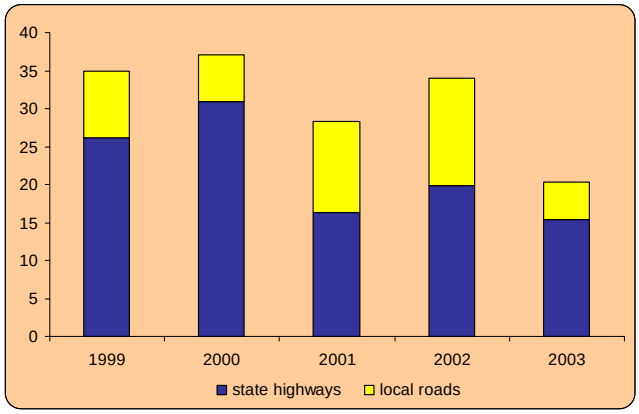
Road casualties 1999–2003

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.

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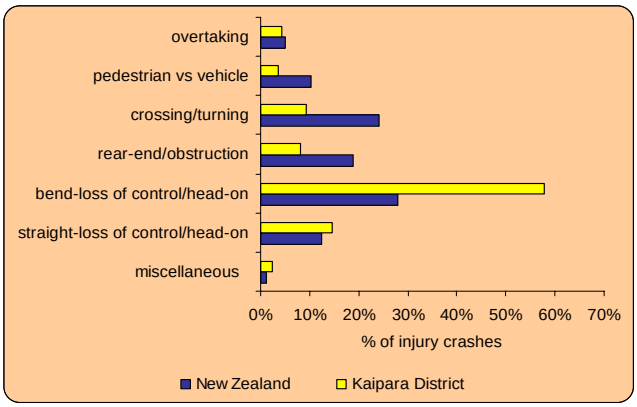
LAND transport safety AUTHORITY

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 were the most common crash type in the Kaipara District and made up over 65 percent of all open road crashes. Loss of control (both curves and straight roads) accounted for 85 percent of the social cost in the district.

Although urban intersection crashes dominated in many other districts, the most common urban crash type in the Kaipara District was loss of control on curves, making up nearly 35 percent of urban crashes.

Crash movement types



Crashes such as these 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.

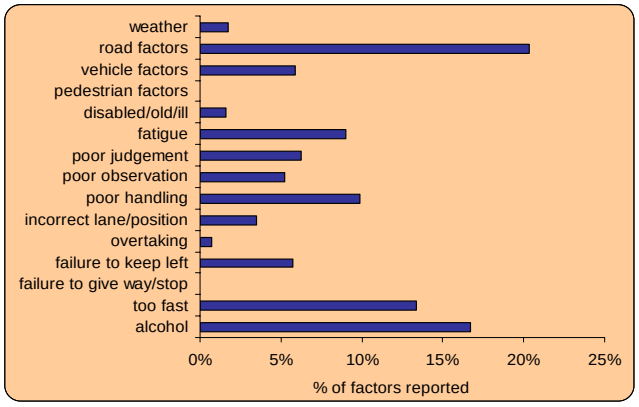
What happens before the loss of control on curve crashes can be affected by driver factors, environmental factors and vehicle factors. Common driver factors in the Kaipara District include alcohol and driving too fast for the conditions. Drivers aged in their early 20s are the main contributors to the loss of control crashes in the district.

Common road environmental factors include wet and/or slippery surface, poor delineation or lighting, and lack of shoulder for recovery space. The Kaipara District has a higher than average number of crashes where vehicle factors are cited. These most commonly include problems with tyres, and in particular, worn or no tyre tread, with punctures and blowouts also featuring.

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 the 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 contribute also 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.

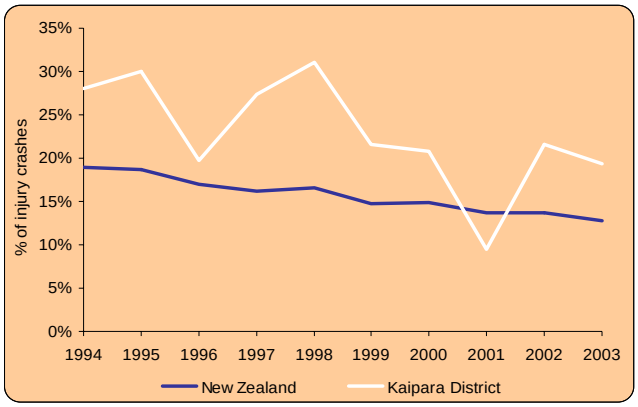
Factors in loss of control crashes



Alcohol

Alcohol-related crashes in the Kaipara District have been decreasing and the severity of crashes involving alcohol has also reduced.

Alcohol-related crashes



Most of the alcohol-related crashes were single vehicle loss of control crashes on curves. The most common age groups for drivers involved in alcohol-related crashes were between 18 and 25 years old and the early 30s. The alcohol-related crashes occurred mainly between 6 pm and 7 pm, and Friday and Saturday were the most common days for crashes.

Common areas for alcohol-related crashes were Maropiu, Dargaville, Matakohe, and Mangawhai. It is important that communities take responsibility for reducing the level of drink-driving amongst their families, friends and neighbours.

Drink-driving has traditionally been a common problem in the Northland Region where 34 percent of serious injury and fatal crashes have alcohol as a contributing factor, compared with the 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.

Road and environmental factors

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

Road factors are common in the Kaipara District in both urban and open road crashes. It is the second most common contributing factor in open road crashes and the fourth most common in urban 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.

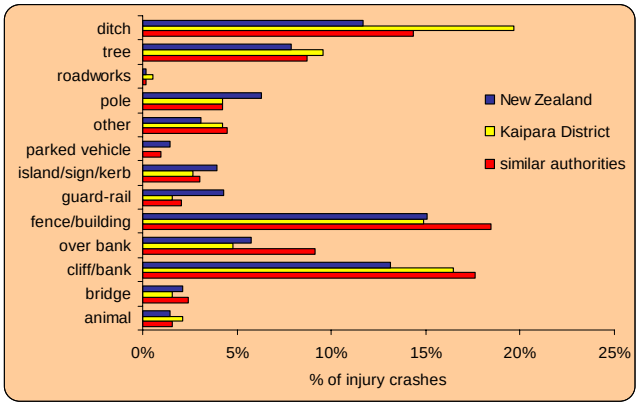
This usually becomes evident during wet weather and is often more pronounced when wet weather follows a long dry spell when stone chips become polished and contaminants have built up on the surface without being regularly washed away. The Kaipara District has a high proportion of wet road crashes in April.

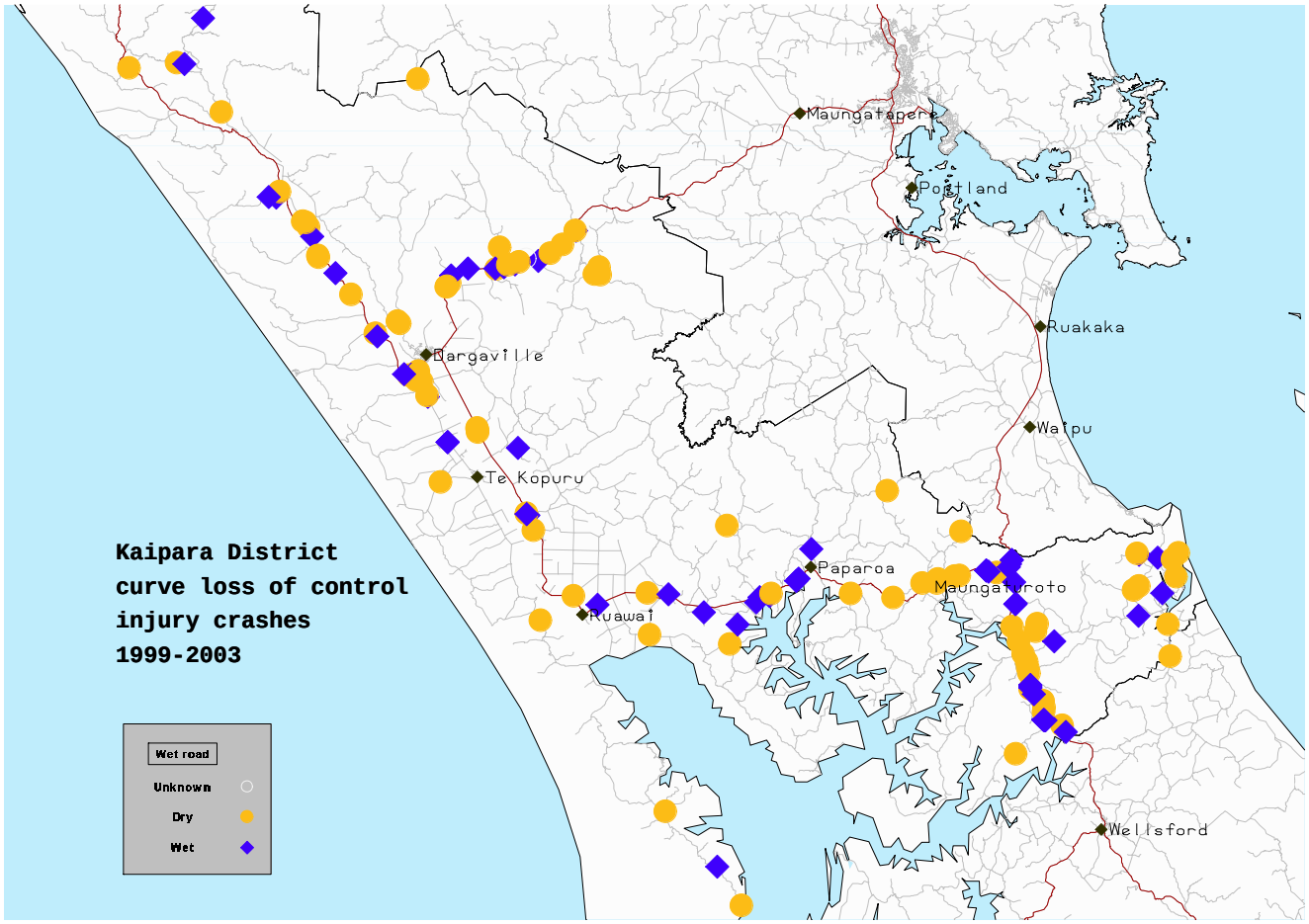
Roadwork sites can be unsealed or slippery. It is important that roadwork sites are signposted to warn of the presence of a specific hazard. It is also important that roadworks are only signposted when there are hazards present. If not, the signs and associated speed limits will soon lose credibility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

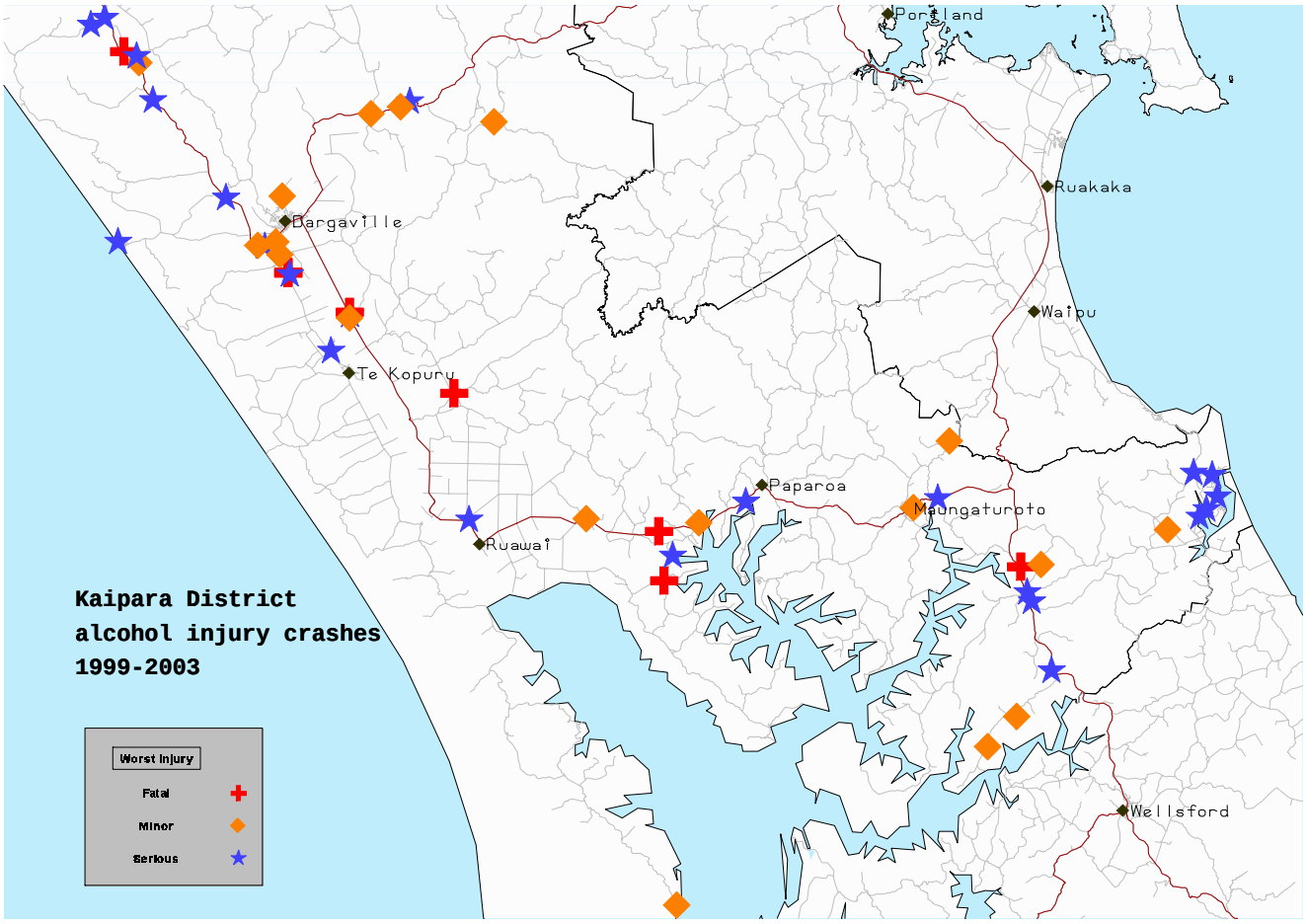
Traffic management plans of roadwork sites and temporary speed limits must be submitted to the road controlling authority for approval before the job is commenced.

Another issue related to the road environment is roadside objects that can be struck after a crash. The most common objects struck in Kaipara District crashes are roadside ditches, cliff or banks. These are over-represented compared with the rest of New Zealand.

Objects struck in rural crashes




Maungatapere
Portland
Ruakaka
Bargaville
Waipu
Te Kopuru
Paparoa
Maungaturoto
Ruawai
Wellsford
Kaipara District
curve loss of control
injury crashes
1999-2003
Wet road
Unknown
Dry
Wet

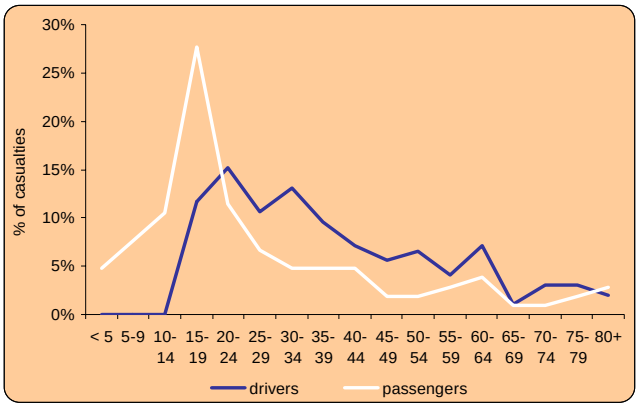

Portland
Ruakaka
Bargaville
Waipu
Te Kopuru
Paparoa
Maungaturoto
Ruawai
Wellsford
Kaipara District
alcohol injury crashes
1999-2003
Worst injury
Fatal
Minor
Serious

Passenger casualties

Passengers are a common road user group injured in crashes. On rural roads they make up 35 percent of road user casualties in the Kaipara District and 25 percent on urban roads. 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). Passengers will be 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.

A third of passenger casualties in the Kaipara District were aged between 14 and 22 years old. There was also a peak in female passengers aged 17 to 18 years. Child casualties (under 15 years old) were also more common than in other parts of the country.

Age of drivers and passengers in alcohol-related crashes



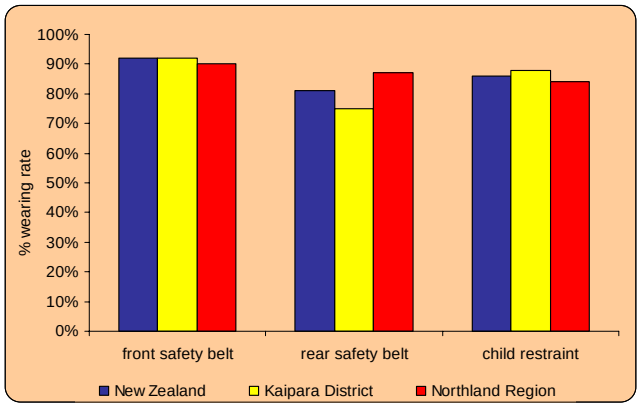
Factors that cause crashes or increase the severity of injuries in crashes need to be addressed as road safety issues. Lack of restraint wearing can dramatically increase the possibility of serious injury to vehicle occupants.

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

	Fatal	Serious	Minor
1999	3	5	10
2000	3	6	11
2001	2	8	9
2002	1	5	6
2003	1	4	13
Total	**10**	**28**	**49**

The use of restraints has improved markedly in the Kaipara District, particularly in the wearing of rear safety belts and child restraints. Maintaining and building on this improvement will lead to reduced severity of passenger injuries in the district. 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 taking rigorous enforcement measures against lack of restraint wearing and have moved to a ‘no more warnings’ regime.

Restraint wearing rates



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 60 percent in the Kaipara District (75 percent at state highway sites and 34 percent at local road sites).

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. Further crash reduction studies should be undertaken to continue the reduction of crashes and their severity.

Where to get more information

For more specific information relating to road crashes in Kaipara 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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