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road safety issues

Northland state highways

Land Transport New Zealand has prepared this road safety issues report. It is based on reported state highway crash data and trends for the 2001–2005 period. The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries on Northland state highways.

In 2005 the percentage of Northland's injury crashes occurring on state highways was the lowest it has been in the last five years (44 percent). The number of fatal and serious casualties reported in 2005 was also the lowest it has been in the last five years.

The crash reporting rate has continued to improve in Northland over the last few years, from 41 percent in 1999 to 68 percent at the end of 2005.

Reported crashes for the period 2001-2005.

Highway	Fatal	Serious	Minor	Non- injury
SH 1	52	126	428	1,113
SH 10	7	43	90	224
SH 11	2	15	39	132
SH 12	14	40	119	272
SH 14	4	15	60	136
SH 15A	1	0	2	6

Major road safety issues

Northland state highways

Crashes at bends

Alcohol-related crashes

Network safety coordination projects

Nationally

Speed

Alcohol

Failure to give way

Restraints

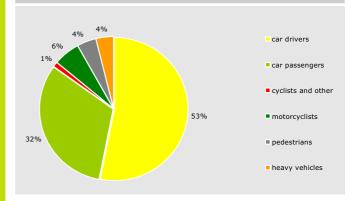
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2005 road trauma for Northland state highways

0	Deaths	14
¥	Serious casualties	58
	Minor casualties	249
	Fatal crashes	13
-	Serious injury crashes	38
	Minor injury crashes	164
	Non-injury crashes	364

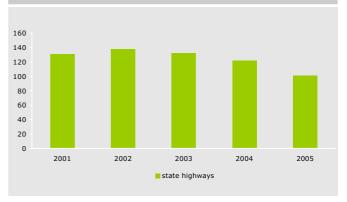
Fatal and serious casualties

User type 2001-2005



Estimated social cost of crashes*

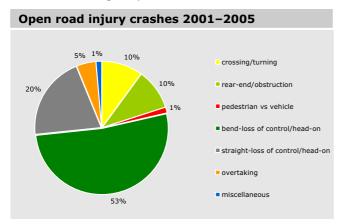
Social cost (\$ million)



* 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 2005 prices.

Crashes at bends

The most common crash type on the open road state highway network in Northland is where drivers lose control of their vehicles on curves. This type of crash had increased significantly since 2001, however, the number in 2005 was significantly lower than the previous two years. When compared to other state highways in the country, Northland's loss of control crashes are over-represented, making up 52 percent of open road crashes – they also make up 16 percent of urban state highway crashes.



Over half of all open road crashes in Northland occur on the state highway network (58 percent). On these rural highways, 72 percent are loss of control (curve or straight). The percentage of crashes at bends on wet roads is high. In 2005, nearly half (47 percent) of the curve loss of control crashes occurred when the road was wet.

After drivers lose control, their vehicles can crash into objects close to the roadside such as ditches, banks or trees. Hitting these can increase the likelihood of serious injuries occurring. The map opposite illustrates areas where these are occurring.

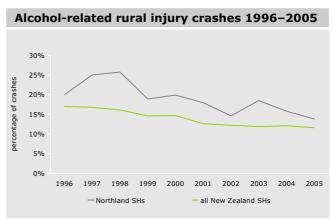
The driver, the road and the vehicle can all contribute to loss of control crashes. A common driver factor is driving too fast for the conditions which are recorded as being a factor in 34 percent of rural crashes. Poor handling and alcohol is also highly represented, as is tiredness/fatique.

Almost two thirds of the drivers involved in crashes at bends are male – numbers peak for those in the 15 to 19 year age group. Male drivers in the 30 to 34 year age group are however over-represented when compared to all drivers involved in injury crashes on the Northland state highway network.

Common road factors include wet slippery surface, heavy rain and oil or loose material on the road surface. Vehicle factors often include tyre faults especially worn tyres. Maintaining appropriate skid resistance and programmes to identify routes where roadside obstacles are struck together with education and enforcement campaigns targeted at the at-risk drivers will assist in reducing crash numbers and severity.

Alcohol-related crashes

Drinking and driving has traditionally been a common problem in Northland. Crashes that have alcohol as a contributing factor make up a quarter of Northland's serious injury and fatal crashes on state highways. Alcohol involvement in open road state highway crashes in Northland is above that for all New Zealand state highways. While the actual number of crashes occurring each year shows little change, there appears to be a general downward trend in the proportion of alcohol-related crashes over the last 10 years. This is illustrated in the graph below (from a high of 26 percent in 1998 to 14 percent in 2005).



The majority of alcohol-related open road crashes occur on state highways in the Far North District. The table below shows the proportion of the 134 alcohol-related open road crashes occurring in each district.

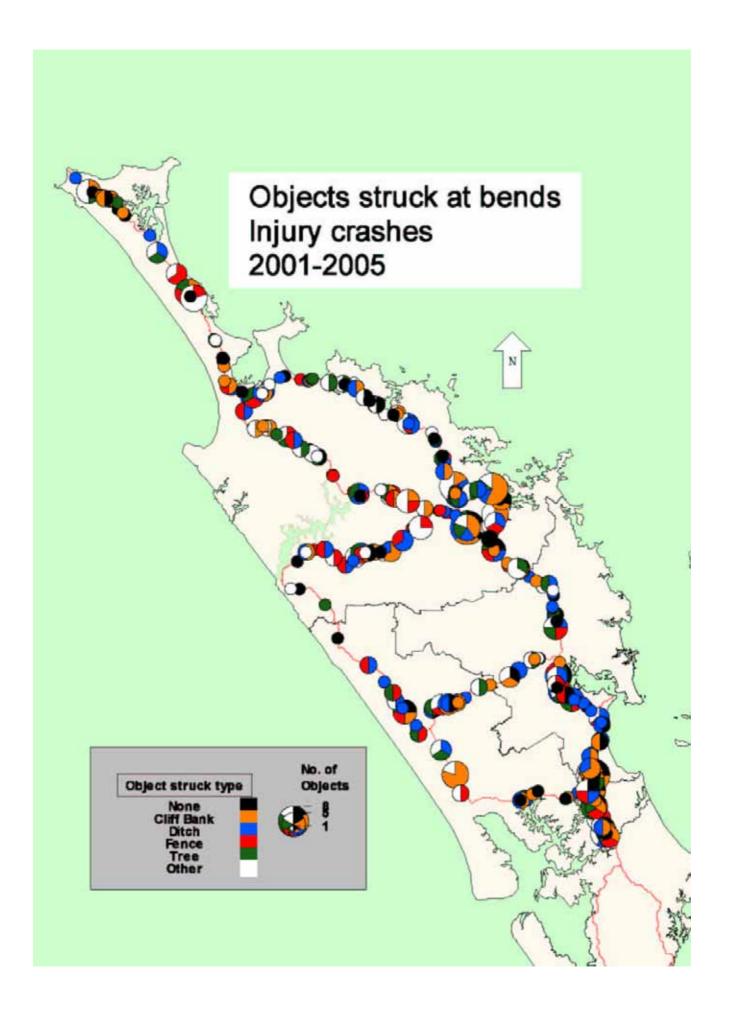
District name	Percentage of crashes
Far North District state highways	61%
Whangarei District state highways	25%
Kaipara District state highways	14%

Police are using their Traffic Alcohol Group (TAG) to develop a higher presence in the Far North and changes are becoming evident.

Drunk-drivers in Northland state highway crashes are most commonly aged between 15 and 35 years old. Males make up 85 percent of the offending drivers in alcohol-related crashes. Of the at-fault drivers, 16 percent were driving on a restricted licence, 12 percent were disqualified and 12 percent held a learner licence.

Weekends and late nights feature strongly in the statistics, with over three quarters of these crashes occurring when it is dark.

Local communities can have an influence in reducing the level of drink-driving among their families, friends, and neighbours. They can be involved in educational and advertising programmes, provide input to roading solutions and support enforcement action. Forgiving road environments can also greatly assist in reducing the severity of these crashes.



Network safety co-ordination projects

In 2005 a national project was introduced to identify and investigate sections of state highway with high injury severity crash rates. The aim of the project is to identify and implement a combination of engineering, enforcement and education packages to reduce the high crash rate.

A number of locations were identified in Northland and the project team has refined the list down to five routes as detailed below.

- NSC 1 SH 1 Rewarewa-Maungakaramea
- NSC 2 SH 1 Rusk-Kamo
- NSC 3 SH 1 Maungakaramea-Shoemaker
- NSC 4 SH 11 (excluding Paihia)
- NSC 5 SH 10-Clough (excluding Kaitaia).

The table below shows the number of reported injury and non-injury crashes for each route for the period 2001–2005.

		2001	2002	2003	2004	2005
NSC 1 SH 1	injury	1	1	7	8	5
	non- injury	13	7	11	11	10
NSC 2 SH 1	injury	16	12	13	10	12
	non- injury	30	18	29	19	26
NSC 3 SH 1	injury	13	18	16	24	14
	non- injury	25	23	28	35	22
NSC 4 SH 11	injury	5	16	10	15	7
	non- injury	18	28	27	19	30
NSC 5 SH 10	injury	5	3	12	5	4
	non- injury	10	7	7	5	9

Each route has similar issues with loss of control and head on crashes on bends or straights but there are some clear differences with driver factors as can be seen in the following table. This shows the percentage of each factor in injury crashes.

	Alcohol	Speed	Fatigue
NSC 1 SH 1	27%	27%	9%
NSC 2 SH 1	22%	14%	17%
NSC 3 SH 1	15%	13%	32%
NSC 4 SH11	21%	34%	4%
NSC 5 SH10	38%	34%	10%

As some of the interventions are only partially implemented, it is too early to know what effect the various packages will have on crash rates. Future issues reports will be able to monitor their effect.

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