



briefing notes - road safety issues

Northland Region

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2002–2006 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 in Northland Region.

This report is the eighth road safety issues report for Northland Region. All the material unless otherwise stated in this report applies to both local roads and to Transit New Zealand (Transit NZ) roads.

In each new report one year's data is added to a five year block and the oldest dropped so it is unlikely that the core issues for any local body would change radically from report to report.

The issues chosen for this report are drawn from either the most common crash types - those that appear over-represented when Northland Region is compared to similar regions or those with high social cost (high numbers of fatal and serious crashes mainly).

We have included a brief overview of crashes in the region for 2002 to 2006.

We encourage local bodies in the region to use their free access to the Ministry of Transport's Crash Analysis System to delve deeper into the highlighted issues.

Major road safety issues

Northland Region

Bends

Alcohol

Speed

Road factors

Nationally

Speed

Alcohol

Failure to give way

Restraints

2006 road trauma

Casualties

Northland Region

Deaths

29

Serious casualties

130

Minor casualties

586

Crashes

Northland Region

Fatal crashes

29

Serious injury crashes

100

Minor injury crashes

395

Non-injury crashes

1011

Overview

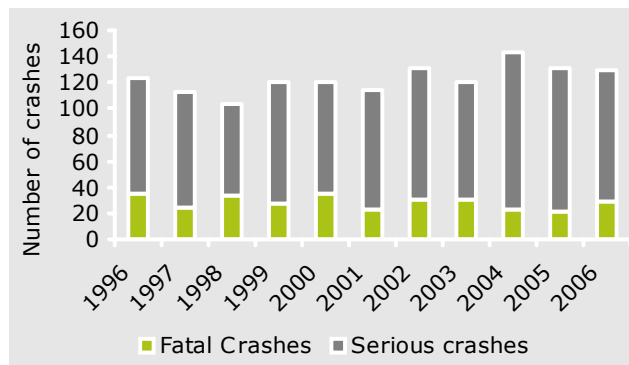
In 2006 on local roads in Northland Region there were 273 injury crashes and 633 non-injury crashes. In addition there were 251 injury crashes and 378 non-injury crashes on Transit NZ roads, both as reported by the New Zealand Police.

The table below shows the number of injuries resulting from 2006 crashes by rural or urban areas for both local and Transit NZ roads (rural is defined as an area with a speed limit of 80km/h or more).

Casualties by injury type 2006				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	25	110	424	559
Urban	4	20	160	184
Total	29	130	584	743

Fatalities and serious crashes have remained relatively steady over the last ten years.

Fatal and serious crashes 1996 to 2006



Fatal and serious crashes

Crash type or contributory cause 2002 to 2006	Percentage of fatal or serious crashes of this type or contributory cause
Lost control at bend	52%
Lost control on straight	18%
Alcohol	29%
Too Fast	32%
Crashes in the dark	39%
Road factors	15%
Wet road	25%

Further information about 2002 to 2006 injury and non-injury crashes on local Northland Region roads:

- Worst month December, best August
- Worst day Saturday, best Tuesday
- 25 percent on wet roads
- 35 percent at night
- 24 percent at intersections
- Social cost of crashes in 2006 \$120m
- 49 percent of at fault or part fault drivers held a full NZ licence

Further information about 2002 to 2006 injury and non injury crashes on Transit NZ roads in Northland Region:

- Worst month December, best September
- Worst day Saturday, best Monday
- 31 percent wet road
- 34 percent night time
- 21 percent at intersections
- Social cost of crashes in 2006 \$135m
- 60 percent of at fault or part fault drivers held a full NZ licence

It has been observed nationally that there is a growing group of drivers who have not been exiting the graduated licence system and who are choosing to stay on restricted licences. This is making it increasingly difficult to distinguish drivers who are truly inexperienced from those that should have moved to a full licence. As a consequence it is more difficult to target educational material.

At fault driver licence status

Driver licence status 2006 Northland Region	Percentage of total 'at fault' drivers (New Zealand 2006 value in brackets) %
Full	50.2 (58.4) %
Learner	10.0 (9.5) %
Restricted	17.8 (17.6) %
Never licenced	3.0 (2.2) %
Disqualified	5.0 (1.7) %
Overseas	6.0 (4.2) %
Expired	1.0 (0.5) %
Other / unknown	7.0 (5.6) %

Crashes at bends

Between 2002 and 2006 forty-eight percent of all injury crashes in Northland Region occurred at bends. These crashes resulted in 82 fatalities, 361 serious injuries and 1295 minor injuries.

Over the last five years crash numbers have been generally trending upwards.

Crashes at bends 2002 to 2006

Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2002	17	51	95	163
2003	11	48	174	233
2004	15	62	194	271
2005	12	58	157	227
2006	17	53	203	273
Total	72	272	823	1167

Most crashes at bends involved a driver losing control of their vehicle and either running off the road or colliding with another vehicle.

After drivers lose control their vehicles often crash into roadside hazards such as ditches, banks, poles or trees. Hitting these objects can result in a relatively minor off-road event turning into something far more serious.

The four most common roadside hazards struck in injury crashes in the Northland region were cliffs or banks (264), ditches (251), fences (196) and trees (167) from a total of 1190 objects struck.

Main characteristics of injury crashes at bends

Crash characteristic	Percentage of crashes
Single vehicle	77 %
Alcohol	29 %
Excessive speed for the conditions	39 %
Road factors	25 %
Poor handling	30 %
Rural road	85 %
Wet road	33 %
Night time	40 %

At fault driver licence status 2006

Driver Licence status, bend related injury crashes, at fault drivers in Northland Region	Percentage of total at fault drivers in bend related crashes (New Zealand value in brackets)
Full	44.7 (51.1) %
Learner	11.2 (10.7) %
Restricted	18.9 (17.9) %
Never licenced	4.0 (4.1) %
Disqualified	6.5 (2.8) %
Overseas	6.2 (5.6) %
Expired	0.7 (0.9) %
Other / unknown	7.6 (6.8) %

Further information about injury crashes on bends (2002 to 2006) on local roads in Northland Region:

- 34 deaths, 175 serious injuries and 704 minor injuries
- 74 percent of at fault drivers were male
- Most common crash type "lost control turning right"
- Most common age group 15-19 years
- 35 percent of crashes involved alcohol
- Worst month December, best May
- Worst day of week Saturday, best Thursday
- Worst time period 3pm-6pm

Further information about injury crashes on bends in 2002 to 2006 on Transit NZ roads in Northland Region:

- 48 deaths, 186 serious injuries and 591 minor injuries
- 68 percent of at fault drivers were male
- Most common crash type "lost control turning right"
- Most common age group 15-19 years
- 22 percent involved alcohol
- Worst month December, best September
- Worst day of week Saturday, best Monday
- Worst time period 3pm-6pm

Alcohol

Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver’s blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

Contrary to popular opinion, people with high blood alcohol levels are more likely to be injured or killed in a crash than sober drivers in the same crash and if injured, they are also more likely to encounter complications in their recovery.

In New Zealand for the 12 months to December 2006, alcohol affected drivers contributed to 31 percent of all fatal crashes and 15 percent of all injury crashes.

In Northland Region alcohol was a factor in 21 percent of all injury crashes between 2002 and 2006. In the same period it was a factor in 29 percent of all fatal and serious crashes.

In Far North District (the worst local body) 25 percent of all injury crashes and 32 percent of fatal and serious crashes between 2002 and 2006 involved alcohol.

Alcohol related crashes			
Crash year	Open road	Urban road	Total
2002	49	22	71
2003	74	30	104
2004	77	30	107
2005	69	34	103
2006	80	36	116
Total	349	152	501

The key crash location of alcohol related injury crashes occurring between 2002 to 2006 are shown in the map on the following page.

From the beginning of 2007 Land Transport NZ has been adding driver factor codes to all non-injury crashes entered into the crash system for the northern region. This will allow the Police and other agencies to target alcohol related crashes even more quickly and with better geographic accuracy than ever before.

The following table illustrates the licence status of at fault drivers in alcohol related crashes in Northland Region and all New Zealand.

At fault driver licence status	
Driver Licence status, alcohol related injury crashes, at fault drivers in Northland Region 2006	Percentage of total at fault drivers in alcohol related crashes (New Zealand 2006 value in brackets)
Full	36.5 (41.6) %
Learner	14.8 (15.8) %
Restricted	19.1 (20.8) %
Never Licenced	4.3 (4.6) %
Disqualified	13.0 (6.2) %
Overseas	1.7 (1.0) %
Expired	0.8 (1.4) %
Other / unknown	9.6 (8.2) %

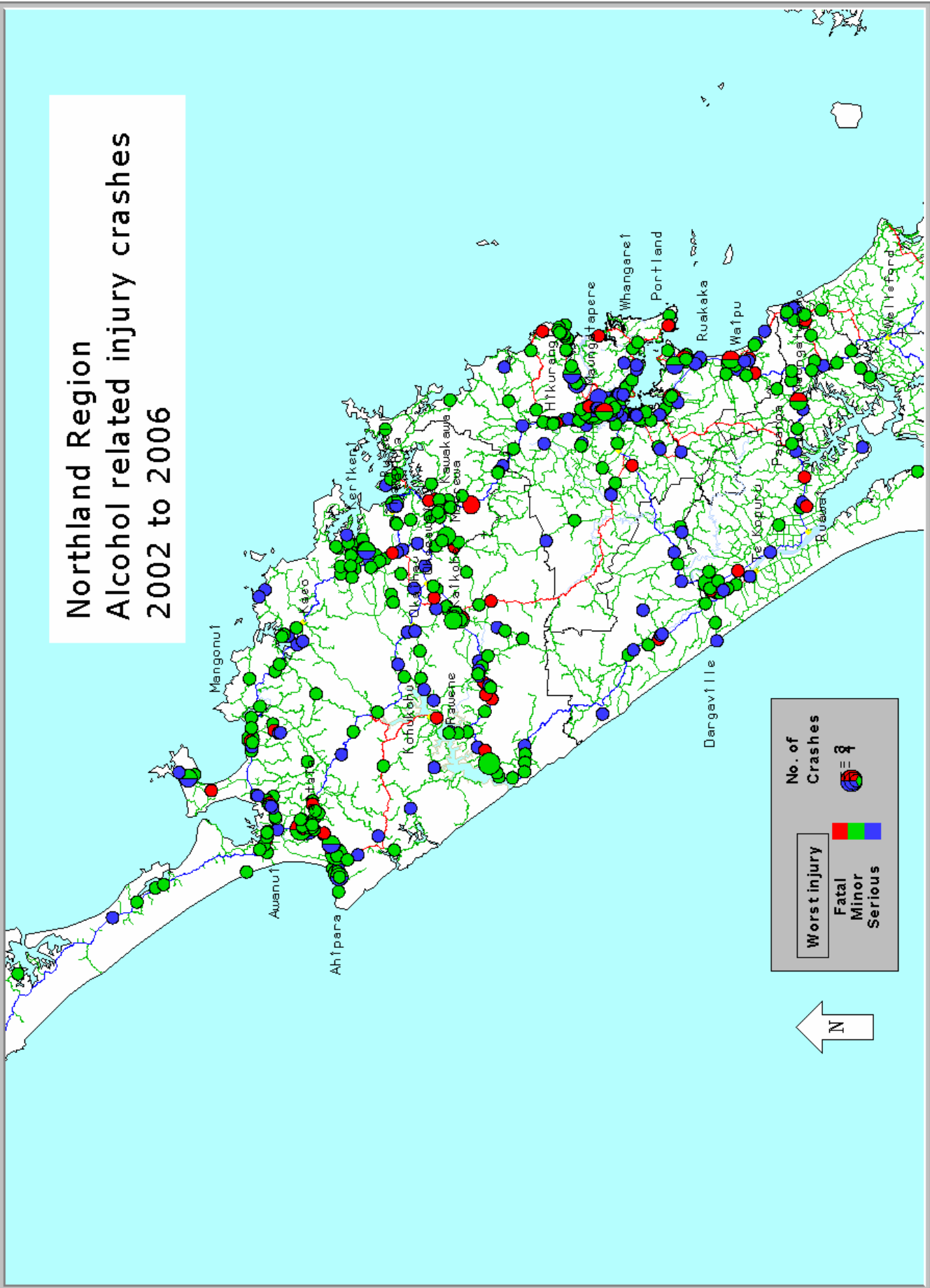
Further information about alcohol related injury crashes in Northland Region on local roads (2002 to 2006):

- 26 deaths, 107 serious injuries and 322 minor injuries
- 76 percent of at fault drivers were male
- Most common crash type “loss of control on bend”
- 17 percent at intersections
- 38 percent urban
- 24 percent wet road
- 68 percent night time
- Worst month February, best May
- Worst day of week Saturday, best Monday

Further information about alcohol related injury crashes in Northland Region on Transit NZ roads (2002 to 2006):

- 33 deaths, 70 serious injuries and 185 minor injuries
- 82 percent of at fault drivers were male
- Most common crash type “loss of control on bends”
- 11 percent at intersections
- 17 percent urban
- 27 percent wet road
- 74 percent night time
- Worst month October, best June and September
- Worst day of week Saturday, best Tuesday

Northland Region Alcohol related injury crashes 2002 to 2006



Speed

Nationally, speed is one of the major contributing factors to road crashes. For the 12 months to the end of December 2006, excessive speed contributed to around 31 percent of fatal crashes and 16 percent of injury crashes.

During 2006, nationally there were 1,839 injury crashes where the driver was travelling too fast for conditions.

Reducing speeds to appropriate levels is an important road safety goal. Excessive speed increases the likelihood of a crash occurring by reducing the time available for drivers to respond to hazardous situations and it also leads to more serious injuries. Research has shown that a one km/h reduction in mean speeds can produce up to a three percent reduction in injury crashes.

In the Northland Region, excessive speed was a factor in 25 percent of all injury crashes in 2006.

There were 594 speed related injury crashes reported in the last five years.

Speed related crashes					
Speed related injury crashes	2002	2003	2004	2005	2006
Urban	19	38	31	24	38
Rural	56	93	113	95	87
Total	75	131	144	119	125

Males represented 78 percent of at fault drivers in speed related injury crashes between 2002 and 2006.

Age and sex of at fault drivers			
Drivers at fault in speed related injury crashes (2002 to 2006)	Male	Female	Total
15- 19 years	159	40	199
20 - 24	88	26	114
25 - 29	37	9	46
30 - 39	88	26	114
40 - 49	50	18	68
50 - 59	22	11	33
60 - 69	5	1	6
70+	6	2	8
Total	455	133	588

At fault driver licence status

Driver Licence status, speed related injury crashes, at fault drivers. Northland Region 2006	Percentage of total at fault drivers in speed related crashes (New Zealand 2006 value in brackets)
Full	37.2 (43.0) %
Learner	14.7 (15.3) %
Restricted	24.0 (22.5) %
Never Licenced	7.0 (4.5) %
Disqualified	7.0 (4.1) %
Overseas	3.1 (3.7) %
Expired	0 (0.5) %
Other / unknown	7.0 (6.2) %

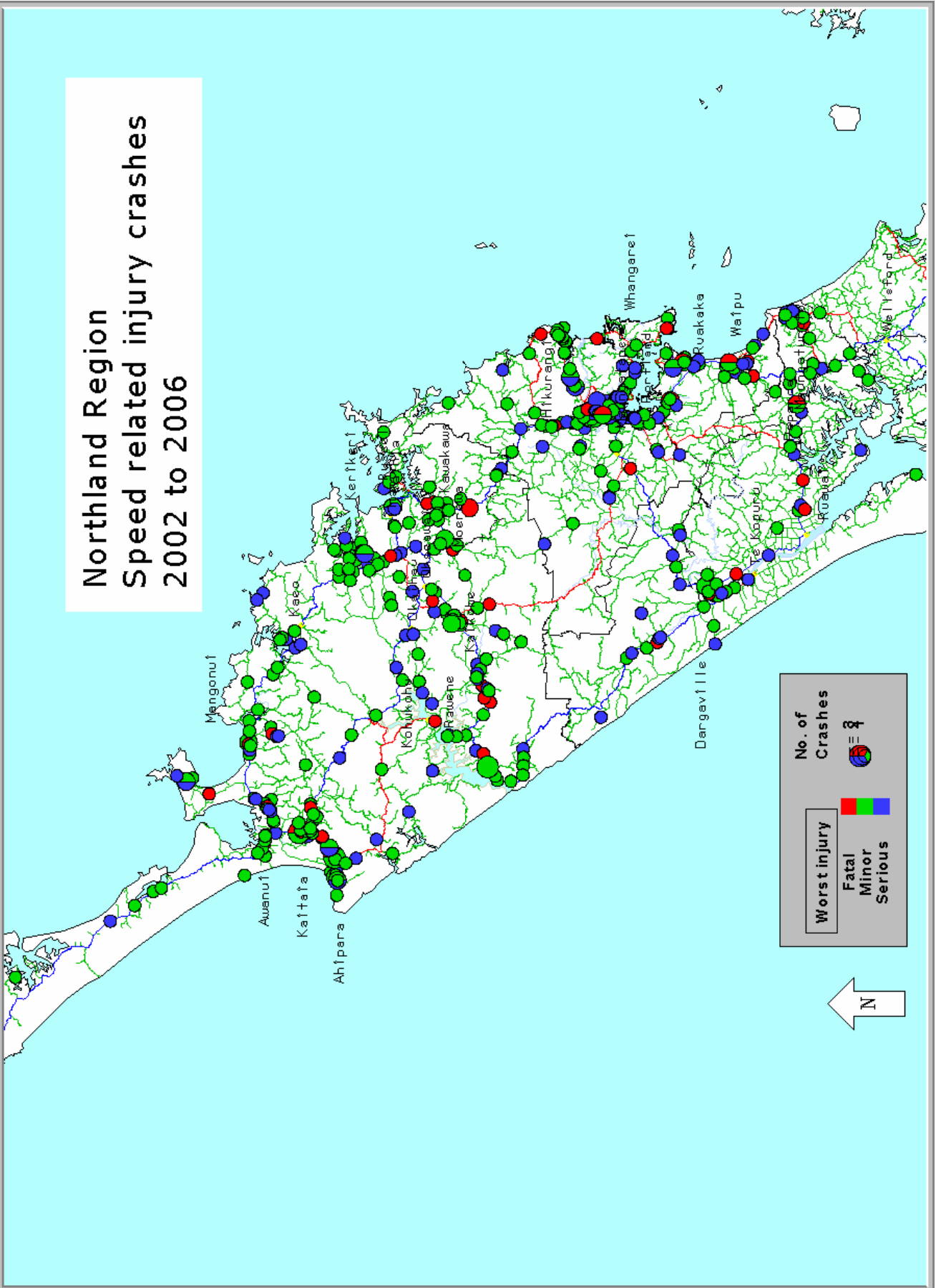
Further information about speed related injury crashes in Northland Region on local roads (2002 to 2006):

- 29 deaths, 114 serious injuries and 375 minor injuries
- 79 percent of at fault drivers are male
- Most common crash type "lost control on bend"
- 15 percent at intersections
- 29 percent wet road
- 47 percent night time
- Worst month December, best March
- Worst day of week Saturday, best Tuesday

Further information about speed related injury crashes in Northland Region on Transit NZ roads (2002 to 2006):

- 43 deaths, 114 serious injuries and 272 minor injuries
- 75 percent of at fault drivers are male
- Most common crash type "lost control on bend"
- 13 percent at intersections
- 44 percent wet road
- 47 percent night time
- Worst month December, best May and August
- Worst day of week Saturday, best Monday

Northland Region Speed related injury crashes 2002 to 2006



Road Factors

A safe road environment incorporates numerous design principles, appropriate geometric design standards, good delineation under all conditions, adequate surface skid resistance and a roadside free of unforgiving hazards. It should also serve the safety needs of all vehicles and road users.

Road factors that contribute to crashes include those that affect the way a driver reacts to the driving conditions, such as:

- a slippery road surface
- obstructions on the road, such as slips
- limited visibility
- signs, signals and/or road markings being damaged or in poor condition.

Nationally, road factors were a contributing factor in 12 percent of injury crashes in 2006, with slippery road surfaces being the key factor.

In the Northland Region, "road factors" were a contributing factor in 10 percent of injury crashes in 2006. (Nine percent on local roads and 11 percent on Transit NZ roads).

There were 432 road factor related injury crashes reported in the last five years.

Road factors are predominantly a rural issue in the Northland Region as illustrated in the table below.

Road factor crashes					
Road factor related injury crashes	2002	2003	2004	2005	2006
Urban	13	22	14	9	16
Rural	44	80	97	54	83
Total	57	102	111	63	99

Road factor crashes are spread across the region and the locations of injury crashes are shown on the map on the following page.

The following table shows the number of various road factors involved in injury crashes for Northland Region during the period 2002-2006.

Reported road factors		
Number of occasions Police reported this factor 2002 to 2006	Local road	Transit NZ road
Slippery road	78	141
Road surface in poor condition	102	66
Road obstructed	5	8
Visibility limited	53	22
Signs or signals (needed or faulty)	5	8
Markings (needed or faulty)	4	0
Street lighting	16	5

Further information about road factor related injury crashes in Northland Region on local roads (2002 to 2006):

- 8 deaths, 47 serious injuries and 259 minor injuries
- Most common crash type, loss of control at a bend
- 15 percent at intersections
- 25 percent urban
- 38 percent wet road
- 25 percent night time
- Worst month December, best September

Further information about road factor related crashes in Northland Region on Transit NZ roads (2002 to 2006):

- 13 deaths, 48 serious injuries and 275 minor injuries
- Most common crash type loss of control at bend
- 9 percent at intersections
- 9 percent urban
- 63 percent wet road
- 27 percent night time
- Worst month December, best September

National issues

This section contains some brief information on the key national road safety issues as measured in Northland Region. They may have been covered elsewhere in this document or not be a specific issue.

Speed

"Too fast" was recorded in 25 percent of injury crashes in the region in the last five years resulting in 72 deaths and other 853 injures. Speed as a factor in crashes is reducing, slowly in the region.

Seventy-seven percent of speed-related injury crashes were "loss of control at a bend" crashes. Alcohol (35 percent) and poor handling (33 percent) were the other driver factors often associated with speed.

At fault male drivers aged 15 to 19 were the most highly represented of the five year age bands in speed-related crashes.

Alcohol

Alcohol was involved in 21 percent of injury crashes in the region in the last five years resulting in 59 deaths and 684 other injuries. The number of injury crashes involving alcohol is increasing.

Thirty-three percent of alcohol crashes were in urban areas of the region.

Speed (41 percent) and poor handling (24 percent) were the other factors often associated with alcohol related crashes.

Failure to give way

Failure to give way or stop was reported in 12 percent of all reported injury crashes for the last five years resulting in 12 deaths and 418 other injuries.

Fifty-eight percent of at fault drivers were male.

Restraints

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a regional level, and may not be fully appropriate to a Territorial Authority. The results are obtainable from the Ministry of Transport website.

<http://www.transport.govt.nz/belts-index/>

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