



briefing notes - road safety issues

Far North District

New Zealand Transport Agency has prepared this eleventh road safety issues report. It is based on reported crash data and trends for the 2005–2009 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 Far North District.

All the material unless otherwise stated in this report applies to both local roads and to State Highways.

In March the Government released Safer Journeys the road safety strategy for the next ten years. The two following pages contain a brief introduction to the strategy and a link to find more information.

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

We have included a brief overview of crashes in the district.

We encourage Far North District to use their free access to the Ministry of Transport's Crash Analysis System (CAS) to delve deeper into the highlighted issues.

All data and maps in this note are from CAS.

Major road safety issues *

Far North District

Alcohol

Speed

Bends

Road factors and roadside hazards

National priorities from Road Safety 2020— Safer Journeys

Speed

Alcohol / Drugs

Young Drivers

Roads and Roadsides

Motorcyclists

2009 road trauma

Casualties

Far North District

Deaths

15

Serious casualties

44

Minor casualties

217

Crashes

Far North District

Fatal crashes

13

Serious injury crashes

36

Minor injury crashes

134

Non-injury crashes

333

* not in any specific order of priority

Safer Journeys

For the past decade road safety in New Zealand has been directed by the Road Safety 2010 strategy.

This strategy was introduced in 2003 and aimed to reduce deaths and casualties from road crashes.

In March 2010 the Government released a new strategy, "Safer Journeys", to build on the gains made under the Road Safety to 2010.

Under the new strategy, road safety will be looked at from a system wide approach rather than focusing so strongly on the road user.

The emphasis will be on improving all the parts of the road transport system that impact on safety; the road, the vehicle, travel speeds and the road user.

A number of areas were chosen as the areas of focus under the 2020 strategy.

These areas were assigned a priority, based on research that shows five major areas of concern, six areas of lesser concern, and two areas where continued focus is needed, or concern is emerging.

These divisions are shown in "table 3" opposite. This table is a direct extract from page 12 of the Safer Journeys document which can be found here:

<http://www.transport.govt.nz/saferjourneys/Documents/SaferJourneyStrategy.pdf>

We have made changes to the wording and way data is presented in these briefing notes to reflect and emphasize the connections to the new strategy. In particular we have included more tables showing age distribution as problems with the safety of young drivers as a particular focus of Safer Journeys.

We have also prepared a table on the following page which shows the areas of "high concern" under Safer Journeys 2020 strategy.

This table allows some relative comparison of Safer Journeys priorities across the local bodies in the area covered by the Auckland NZTA Office.

Table 3 – Safer Journeys' areas of concern and the Safe System

AREAS OF CONCERN WE WILL ADDRESS	WHERE WE WILL TAKE ACTION ACROSS THE SAFE SYSTEM			
	SAFE ROADS AND ROAD-SIDES	SAFE SPEEDS	SAFE VEHICLES	SAFE ROAD USE
Areas of high concern				
Reducing alcohol/drug impaired driving			✓	✓
Increasing the safety of young drivers	✓	✓	✓	✓
Safe roads and roadsides	✓			
Safe speeds	✓	✓	✓	
Increasing the safety of motorcycling	✓	✓	✓	✓
Areas of medium concern				
Improving the safety of the light vehicle fleet			✓	✓
Safe walking and cycling	✓	✓	✓	✓
Improving the safety of heavy vehicles	✓	✓	✓	✓
Reducing the impact of fatigue	✓	✓	✓	✓
Addressing distraction	✓		✓	✓
Reducing the impact of high risk drivers		✓	✓	✓
Areas of continued and emerging focus				
Increasing the level of restraint use			✓	✓
Increasing the safety of older New Zealanders	✓	✓	✓	✓

For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

Table source: Ministry of Transport 2020 Safer Journeys

Status of the areas of "high concern" from Safer Journeys 2020 for the Northland and Auckland Regions 2005 to 2009

(table below refers only to fatal and serious crashes except for the "intersection" column for reasons of sample size and includes local roads as well as State Highways)

Safer Journeys area of concern	Reducing alcohol and drug impaired driving	Increase the safety of young drivers	Safer roads and roadsides			Reducing speed related crashes	Increasing the safety of motorcycling
	Percentage of fatal and serious crashes with this factor	Percentage of fatal and serious crashes with at fault drivers aged 24 years or less	Percentage of fatal and serious crashes with an object struck	Number of urban intersections with three or more injury crashes in the last five years	Number of rural intersections with three or more injury crashes in the last five years	Percentage of fatal and serious crashes with this factor	Percentage of fatal and serious crashes involving a motorcyclist
Far North District	31	32	53	3	5	30	13
Kaipara District	28	38	63	3	1	26	13
Whangarei District	29	42	51	19	6	30	15
Rodney District	29	32	53	13	13	24	20
North Shore City	26	36	33	113	2	15	17
Waitakere City	27	34	41	93	6	27	16
Auckland City	24	32	29	345	12	16	19
Manukau City	33	42	40	158	17	29	13
Papakura District	22	34	46	23	4	20	21
Franklin District	25	28	53	8	10	26	18
Northland Region	30	37	54	25	12	29	14
Auckland Region	27	35	37	753	64	22	17
New Zealand	23	34	45	1938	320	23	18

Far North District overview

In 2009 on local roads in Far North District there were 75 injury crashes and 145 non-injury crashes. In addition on State Highways in Far North District there were 108 injury crashes and 188 non-injury crashes.

The table below shows the number of injuries resulting from the 183 injury crashes by rural or urban areas (rural is defined as an area with a speed limit of 80km/h or more).

Casualties by urban / rural 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	14	36	159	209
Urban	1	8	58	67
Total	15	44	217	276

In the past ten years there has been no real decline in the number of fatal and serious crashes in the district, with minor crashes rising then falling.

The very sharp rise in minor crashes in 2003 was almost certainly due to an improvement in Police crash reporting.

Although not an issue in this briefing note it is worth mentioning that crashes at night are a little over peer values. In addition the percentage of crashes where the at fault (or part fault) driver had a full drivers licence is well under peer local body values. For example in Far North 47 percent of at fault drivers had a full licence while in peer local bodies 58 percent had a full licence.

Crash trends in Far North District				
Year	Fatal crashes	Serious crashes	Minor crashes	Total crashes
2000	14	42	75	131
2001	7	40	69	116
2002	11	56	92	159
2003	9	47	190	246
2004	12	45	171	228
2005	11	46	125	182
2006	13	44	172	229
2007	13	61	177	251
2008	8	41	136	185
2009	13	36	134	183

Crash characteristics 2005 to 2009		
Crash type or contributory cause	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol related	31	25
Speed related	30	26
At bends	62	57
Road factor	18	20
At night	39	35

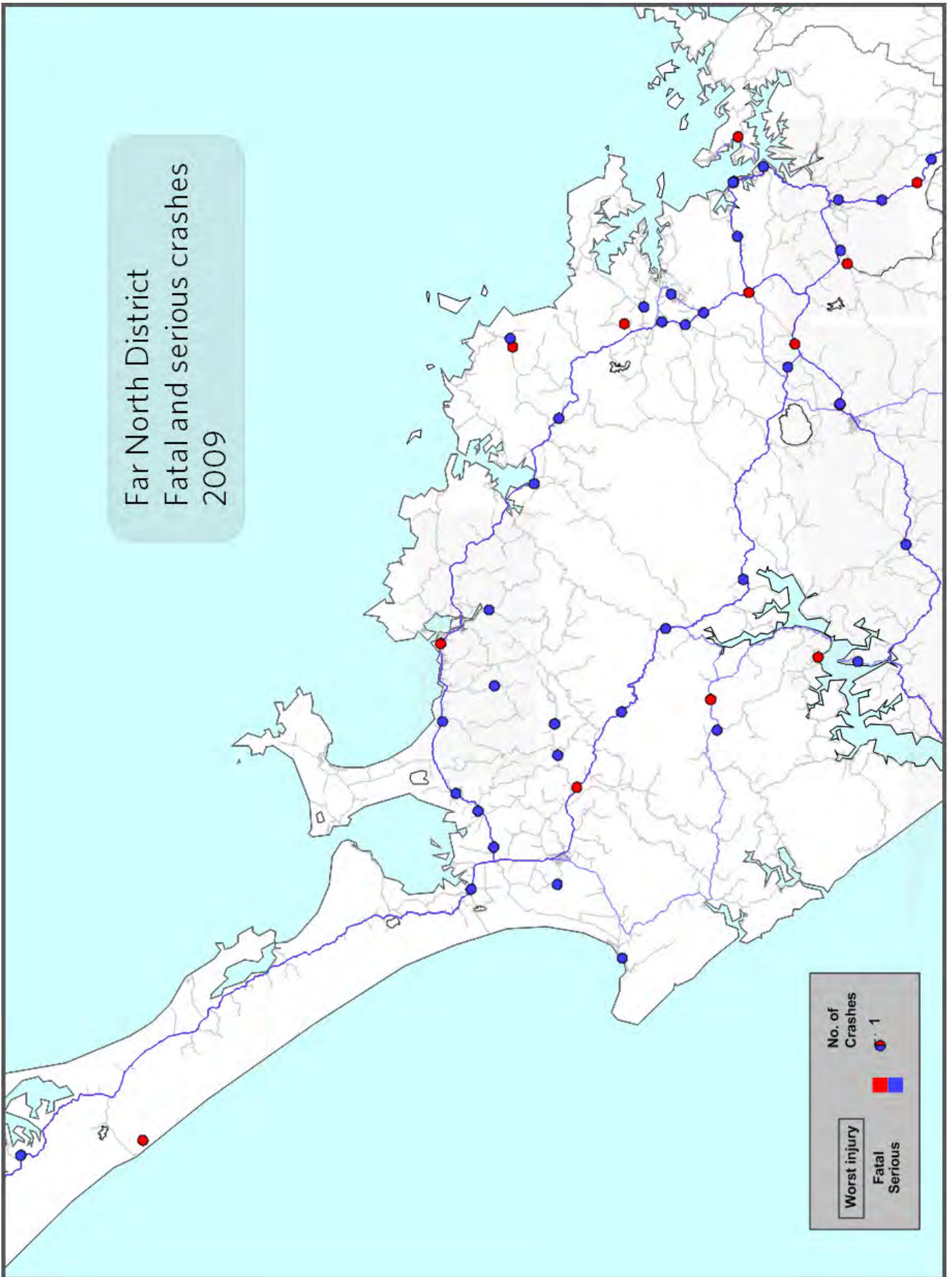
Further information about the 449 injury and 839 non-injury crashes on **local** roads in Far North District 2005 to 2009:

- 24 deaths, 125 serious injuries and 543 minor injuries
- Worst month January, best September
- Worst day Friday, best Monday
- 23 percent on wet roads
- 37 percent at night
- 22 percent at intersections
- 894 roadside objects struck *
- Most represented five year age group of at fault drivers in injury crashes: 15 to 19 years (22 percent of at fault drivers)
- Social cost of crashes in 2009 \$49.5m

Further information about the 581 injury and 899 non-injury crashes on **State Highways** in Far North District 2005 to 2009:

- 41 deaths, 177 serious injuries and 682 minor injuries
- Worst month December, best October
- Worst day Saturday, best Monday
- 32 percent on wet roads
- 33 percent at night
- 21 percent at intersections
- 1069 roadside objects struck *
- Most represented five year age group of at fault drivers in injury crashes: 20 to 24 years (16 percent of at fault drivers)
- Social cost of crashes in 2009 \$62.6m

* It needs to be noted that if a vehicle hits the same type of object more than once it is only counted in CAS once.



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 sixteen times more likely to be involved in a fatal crash than a sober driver.

In Far North District, alcohol was a factor in 31 percent of fatal and serious crashes and 25 percent of injury crashes.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2005	38	13	51
2006	50	13	63
2007	45	9	54
2008	41	6	47
2009	27	12	39
Total	201	53	254

(Open road is classified as any area with a speed limit of 80km/hr or more)

Age group of at fault drivers in alcohol related injury crashes 2005 to 2009 and 25 years ago (prior to lowering the drinking age)		
Age group	Percentage drivers in this age group 2005 to 2009	Percentage drivers in this age group 1980 to 1984
15-19	20	23
20-24	22	29
25-29	7	17
30-34	12	9
35-39	10	7
40-44	11	4
45-49	8	6
50-54	4	2
55-59	2	2
60-64	1	1
65-69	1	0
70-74	0	1
75+	0	1

It is interesting to note for Far North that the age distribution of those found at fault in alcohol related crashes has moved from being extremely youth centric with 69 percent of drinking drivers under 30 twenty-five years ago to 50 percent under this age today.

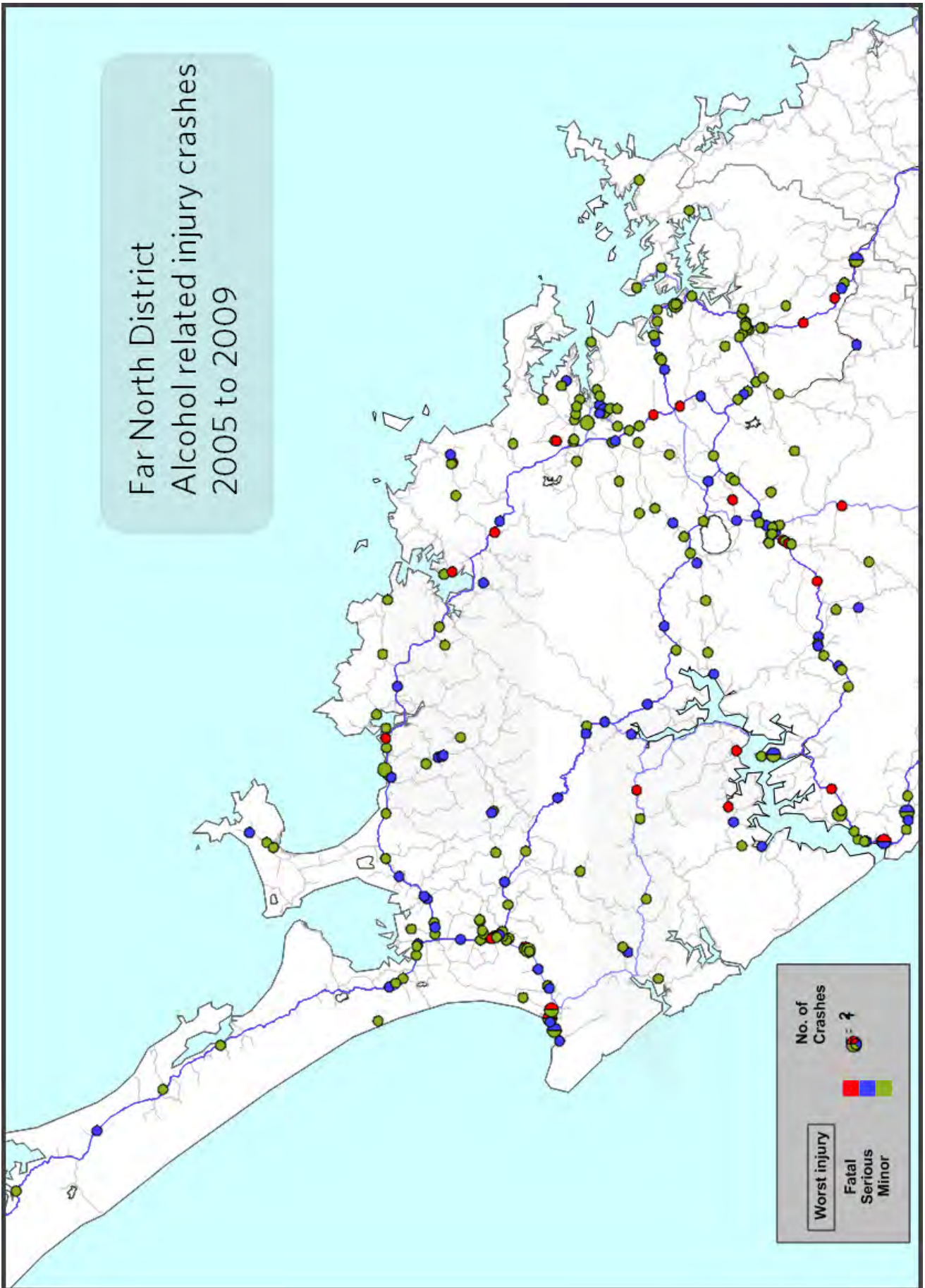
It would appear then that while very young people are targeted for their binge drinking culture, which may manifest in other health and law issues, in the Far North this has not translated into an increased proportion in youth alcohol related crashes.

Further information about the 142 alcohol related injury crashes on **local** roads in Far North District 2005 to 2009:

- 15 deaths, 42 serious injuries and 171 minor injuries
- 71 percent of at fault drivers were male
- Most common crash type "lost control at a bend"
- 11 percent at intersections
- 21 percent urban
- 19 percent wet road
- 65 percent night time
- Worst three hour time period, 6pm to 9pm
- Worst month November, best February
- Worst day Sunday, best Monday
- Number of roadside objects struck 141
- Most common object struck, ditch

Further information about the 112 alcohol related injury crashes on **State Highways** in Far North District 2005 to 2009:

- 14 deaths, 42 serious injuries and 119 minor injuries
- 78 percent of at fault drivers were male
- Most common crash type "lost control at a bend"
- 10 percent at intersections
- 21 percent urban
- 25 percent wet road
- 69 percent night time
- Worst three hour time period, midnight to 3am
- Worst months March, May and August (equal), best April and June (equal)
- Worst day Saturday, best Monday
- Number of roadside objects struck, 113
- Most common object struck, cliff or bank



Speed

Nationally, speed is one of the major contributing factors to road crashes. Reducing speeds is an important road safety goal for road safety 2020 as it was for 2010. Excessive speed increases the likelihood of a crash occurring by reducing the time available for drivers to respond to situations and it leads to more serious injuries.

Between 2005 and 2009 twenty-six percent of injury crashes in Far North District involved travelling too fast for the conditions.

Speed related injury crashes					
	2005	2006	2007	2008	2009
Rural	52	48	53	46	30
Urban	7	9	9	7	8
Total	59	57	62	53	38

Speed related crashes in CAS are not crashes where the driver was exceeding the posted speed limit (although that may also be the case), but are crashes where in the opinion of the reporting Police Officer the driver was travelling too fast for the prevailing conditions.

Certainly getting the message through that the posted speed limit is a maximum, but not necessarily a safe speed for every bend, crest, dip or isolated development (or driver) is the key to lowering the injury rate.

Local bodies and highway managers can do their part by making sure limits are reasonable, comply with the Speed Limits Rule and are adequately signposted.

Temporary speed limits at road works in particular need to be better monitored to make sure that they are reasonable and only in place when hazards exist. The poor level of speed compliance at road works is almost certainly motorists reaction to decades of poor and often unreasonable posting of temporary limits.

The Police can do their part by using CAS crash data to put special emphasis where there is demonstrated risk. In this way there is a better chance that drivers will accept that the enforcement is not simply "revenue gathering". The broad motorist acceptance of the lowered tolerance near schools is evidence that connecting enforcement to risk or perceived risk works.

The map on the following page shows the locations of injury speed related crashes in Far North District by day and night.

Age group and gender of at fault drivers in speed related injury crashes 2005 to 2009 (note : age ranges are not equal)

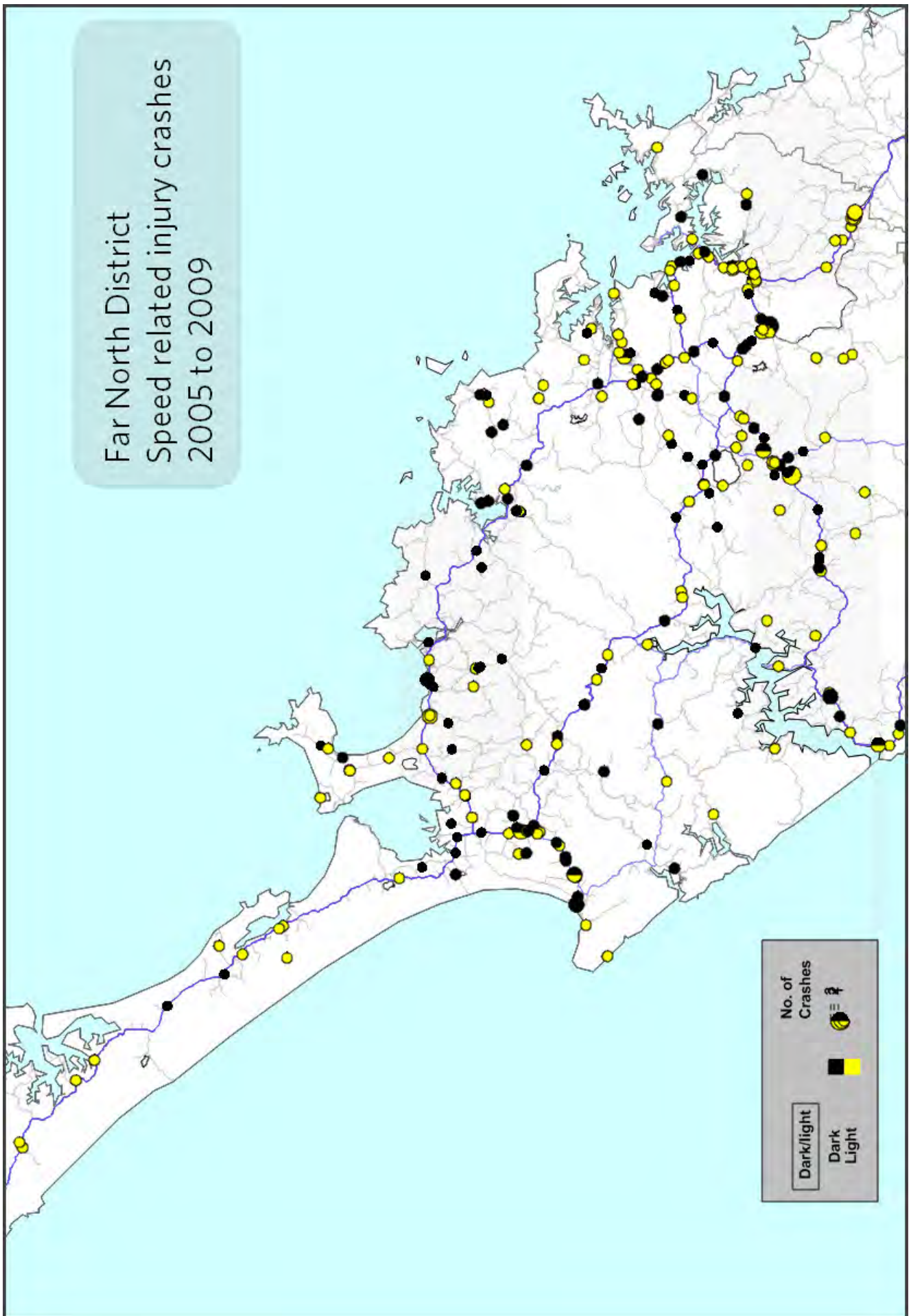
Age group	Male	Female	Total
15-19 years *	61	17	78
20 - 24	37	24	61
25 - 29	11	4	15
30 - 39	47	7	54
40 - 49	32	6	38
50 - 59	6	1	7
60 - 69	6	0	6
70+	3	0	3
Total	203	59	262

Further information about the 139 speed related injury crashes on **local** roads in Far North District 2005 to 2009:

- 13 deaths, 50 serious injuries and 187 minor injuries
- Most common crash type "lost control at a bend" (119 crashes)
- 22 percent wet road
- 47 percent night time
- Worst month January, best March
- Worst day Saturday, best Tuesday
- Worst three hour time period, 6pm to 9pm

Further information about the 130 speed related injury crashes on **State Highways** in Far North District 2005 to 2009:

- 12 deaths, 42 serious injuries and 152 minor injuries
- Most common crash type "lost control at a bend" (104 crashes)
- 39 percent wet road
- 48 percent night time
- Worst month January, best July
- Worst day Saturday, best Tuesday
- Worst three hour time period, 3pm to 6pm



Bends

Between 2005 and 2009 fifty-seven percent of all injury crashes and 62 percent of all fatal and serious crashes in Far North District were loss of control or head on bends.

Injury crashes at bends 2005 to 2009				
	Fatal crashes	Serious crashes	Minor crashes	Total
2005	6	27	69	102
2006	9	27	91	127
2007	6	40	104	150
2008	4	26	78	108
2009	9	24	68	101
Total	34	144	410	588

Inexperienced drivers (who are often young) are strongly reported in crashes at bends in Far North District. Around 40 percent of at fault drivers in these crashes were aged under 25.

Many drivers overestimate their own abilities and those of their vehicles to negotiate bends especially in the wet.

An issue we have noted before in Northland is the willingness of drivers to drink and speed on local roads rather than on the State Highways (see opposite bullet points). This suggests that the Police deterrent via their highway patrol teams are more perceived to be effective than the levels of enforcement elsewhere.

Age group and gender of at fault drivers in bend related injury crashes 2005 to 2009			
Age group	Female	Male	Total
15 to 19	23	88	111
20 to 24	41	68	109
25 to 29	13	31	44
30 to 34	13	43	56
35 to 39	12	36	48
40 to 44	17	41	58
45 to 49	11	33	44
50 to 54	4	17	21
55 to 59	7	16	23
60 to 64	4	17	21
65 and over	9	19	28

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 most common roadside hazards struck in injury loss of control or head on crashes on bends in Far North District were ditches (114) and cliffs or banks (115) from a total of 553 objects struck. In addition 90 trees and 25 posts or poles were struck.

Further information about the 275 injury loss of control or head on crashes on bends on **local** roads in Far North District 2005 to 2009:

- 16 deaths, 91 serious injuries and 342 minor injuries
- 75 percent of at fault drivers were male
- 23 percent of crashes involved a road related contributory factor
- 38 percent of crashes involved alcohol
- 43 percent of crashes involved speed too fast for the conditions
- Worst month January, best May
- Worst day Saturday, best Tuesday
- Worst three hour time period, 6pm to 9pm
- Number of roadside objects struck, 248
- Most common roadside object struck, cliff or bank

Further information about the 313 injury loss of control or head on crashes on bends on **State Highways** in Far North District 2005 to 2009:

- 23 deaths, 108 serious injuries and 347 minor injuries
- 71 percent of at fault drivers were male
- 27 percent of crashes involved a road related contributory factor
- 23 percent of crashes involved alcohol
- 33 percent of crashes involved speed too fast for the conditions
- Worst month November, best July
- Worst day Saturday, best Monday and Tuesday (equal)
- Worst three hour time period, midday to 6pm
- Number of roadside objects struck, 305
- Most common roadside object struck, ditch

Road Factors - including roadside hazards

A safe road environment includes appropriate geometric design standards, good delineation, adequate surface skid resistance and a roadside free of unforgiving hazards.

“Safer Journeys” places “Safer Roads and Roadside” as one of the five areas of “High concern”.

Between 2005 and 2009 in Far North District “road factors” were a contributing factor in 18 percent of fatal and serious crashes and 20 percent of injury crashes. Additionally in Far North District between 2005 and 2009 fifty-three percent of all fatal and serious crashes and 56 percent of injury crashes involved roadside hazards being struck.

Road factor related injury crashes					
	2005	2006	2007	2008	2009
Rural	24	34	56	49	34
Urban	1	5	1	0	4
Total	25	39	57	49	38

Roadside hazards normally contribute to the overall crash outcome by increasing injury severity but can in themselves be a contributory factor in a crash. For example occupants in an errant vehicle striking a large tree close to the road edge are likely to sustain worse injuries than if the tree was not present. If the same tree had low branches and was located at an intersection it could also contribute to a lack of visibility. It needs to be noted that if a vehicle hits the same type of object more than once it is only counted in CAS once.

Types of road factors in injury crashes 2005 to 2009		
Road factor type	Local roads	State Highways
Slippery road*	29	82
Road surface in poor condition	50	34
Road obstructed	4	5
Visibility limited	20	14
Signs or signals (needed or faulty)	3	3
Markings (needed or faulty)	1	0
Street lighting	0	1

* note that NZTA does not assume that a road that is “wet” is necessarily “slippery”. This factor is only added to CAS if the attending Police Officer specifically mentions a “slippery road”.

Most common types of hazard struck All injury crashes in Far North District		
Type of hazard	Number of times hazard struck Local roads	Number of times hazard struck State Highways
Ditch	69	99
Cliff or bank	64	87
Fence	59	78
Post or pole	25	19
Tree	49	59
Water / river	11	8

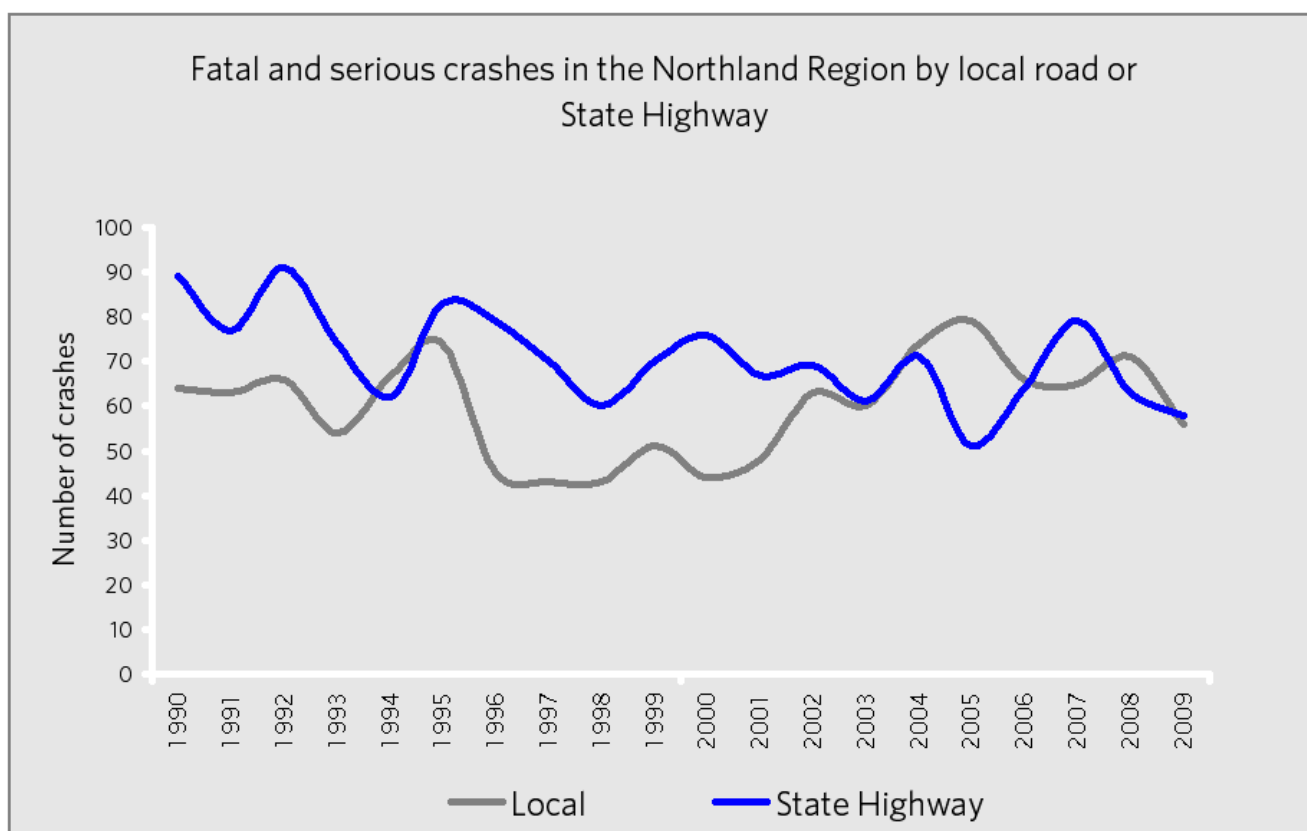
Further information about the 94 road factor related injury crashes on **local** roads in Far North District 2005 to 2009:

- 3 deaths, 24 serious injuries and 118 minor injuries
- Most common crash type “loss of control at a bend” (63 crashes)
- 11 percent at intersections
- 29 percent wet road
- 27 percent night time
- Most common at fault driver age group, 20 to 24 years (19 percent of at fault drivers)
- Worst month January, best July

Further information about the 114 road factor related injury crashes on **State Highways** in Far North District 2005 to 2009:

- 10 deaths, 31 serious injuries and 143 minor injuries
- Most common crash type “loss of control at bends” (83 crashes)
- 6 percent at intersections
- 60 percent wet road
- 25 percent night time
- Most common at fault driver age group, 15 to 24 years (29 percent of at fault drivers)
- Worst month February, best March

Looking back—the last two decades



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