



briefing notes - road safety issues

Rodney District

New Zealand Transport Agency has prepared this road safety issues report. It is based on reported crash data and trends for the 2004–2008 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 Rodney District.

This report is the tenth road safety report for Rodney District. All the material unless otherwise stated in this report applies only to local roads. Local roads are all non State Highway roads in the district.

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 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 Rodney 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 Rodney District to use its 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 *

Rodney District

Bends

Alcohol

Road factors and roadside hazards

Speed

Nationally *

Speed

Alcohol

Failure to give way

Restraints

2008 road trauma

Casualties

Rodney District

Deaths 3

Serious casualties 50

Minor casualties 172

Crashes

Rodney District

Fatal crashes 3

Serious injury crashes 40

Minor injury crashes 124

Non-injury crashes 315

* not in any specific order of priority

Overview

In 2008 on local roads in Rodney District there were 167 injury crashes and 315 non-injury crashes. In addition there were 133 injury crashes and 211 non-injury crashes on State Highways both as reported by the New Zealand Police. The table below shows the number of injuries resulting from the 167 injury crashes by rural or urban areas for local roads (rural is defined as an area with a speed limit of 80km/h or more).

Casualties by urban / rural 2008

	Fatalities	Serious injuries	Minor injuries	Total
Rural	2	25	118	145
Urban	1	25	54	80
Total	3	50	172	225

In 2008 Rodney District had the lowest local road toll since 1992. Serious crashes have fluctuated and minor crashes have risen slowly. Traffic volumes have been rising in the district with 524.4 million vehicle kilometres travelled (VKT) in 2003/4 and 585.6m VKT in 2007/8. When Rodney was compared to similar districts crashes at bends appear over represented. The other issues in this note are all found more strongly represented than similar local bodies but only just so.

Crash trends in Rodney District

Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
1999	8	29	72	109
2000	8	30	61	99
2001	5	36	63	104
2002	8	22	79	109
2003	4	28	89	121
2004	9	37	101	147
2005	8	28	109	145
2006	6	34	111	151
2007	7	33	127	167
2008	3	40	124	167

Local road crash characteristics

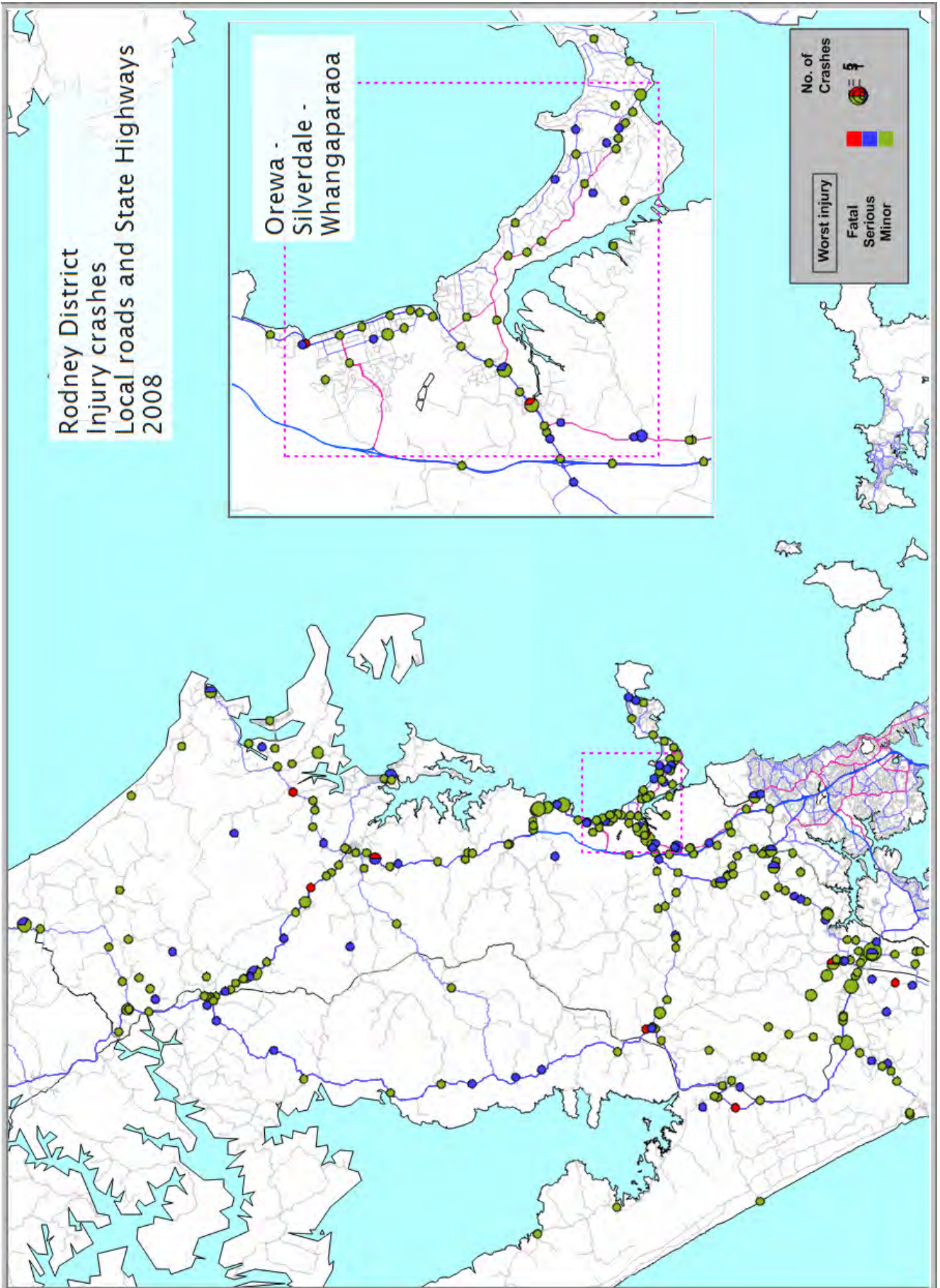
Crash type or contributory cause 2004 to 2008	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol	27	19
Too fast	28	26
At bends	54	51
With objects	47	50
Road factors	19	19
Night time	38	34

Further information about the 777 injury and 1461 non-injury crashes on **local** roads in Rodney District 2004 to 2008:

- 37 deaths, 228 serious injuries and 820 minor injuries
- Worst month March, best September
- Worst day Friday, best Tuesday
- 27 percent on wet roads
- 36 percent at night
- 26 percent at intersections
- 1460 roadside objects struck
- Most represented five year age block in at fault drivers in injury crashes: 15 to 19 years (23 percent of at fault drivers)
- Social cost of crashes in 2008 \$55.7 m

Further information about the 571 injury and 1167 non-injury crashes on **State Highways** in Rodney District 2004 to 2008:

- 46 deaths, 167 serious injuries and 663 minor injuries
- Worst month December, best June
- Worst day Saturday, best Tuesday
- 33 percent on wet roads
- 29 percent at night
- 30 percent at intersections
- 923 roadside objects struck
- Most represented five year age block in at fault drivers in injury crashes: 15 to 19 years (19 percent of at fault drivers)
- Social cost of crashes in 2008 \$55.1m



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.

Contrary to popular opinion, people with high blood alcohol levels are more likely to be injured or killed in a crash than a sober driver 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 2008, alcohol-affected drivers contributed to 34 percent of all fatal crashes (the same as 2007) and 15 percent of all injury crashes (the same as 2007).

In Rodney District, alcohol was a factor in 27 percent fatal and serious crashes and 19 percent of injury crashes.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2004	15	10	25
2005	21	10	31
2006	15	11	26
2007	17	14	31
2008	19	18	37
Total	87	63	150

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

From the beginning of 2007 NZTA has been adding driver factor codes to all non-injury crashes for the northern district.

This will allow the Police and other agencies to target alcohol related crashes more quickly and with even more geographic accuracy than ever before.

In 2008 there were 51 local road and 17 State Highway non-injury alcohol related crashes reported by the Police in Rodney District.

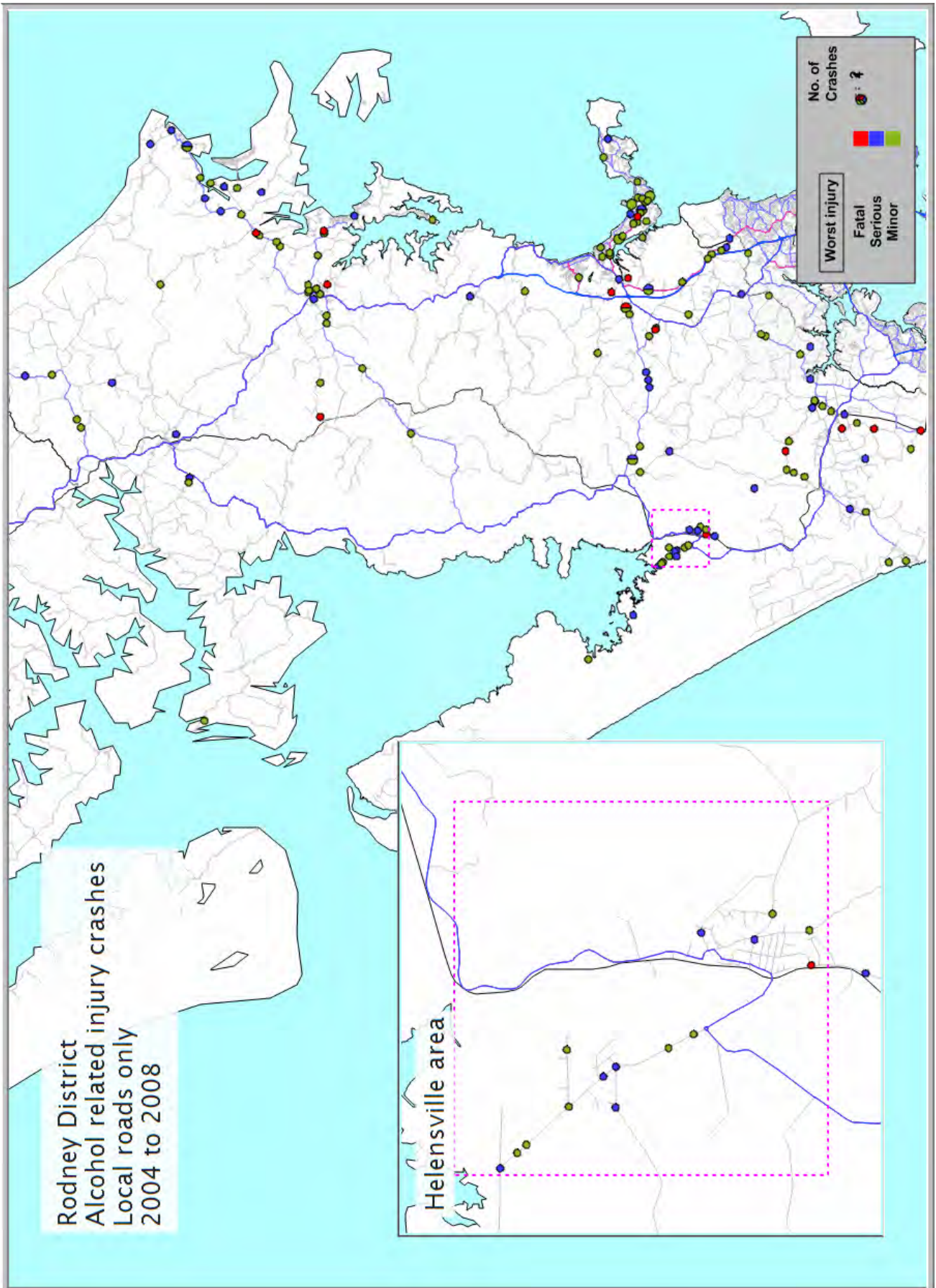
The locations of alcohol related crashes occurring in the district between 2004 and 2008 on local roads are shown on the map on the following page.

Further information about the 150 alcohol related injury crashes on **local** roads in Rodney District 2004 to 2008:

- 14 deaths, 60 serious injuries and 152 minor injuries
- 81 percent of at fault drivers were male
- Most common crash type “loss of control at a bend” (101 crashes)
- 17 percent at intersections
- 42 percent urban
- 23 percent wet road
- 77 percent night time
- Worst three hour time period 9pm till midnight
- Worst months September, best January
- Worst day Friday, best Tuesday

Further information about the 73 alcohol related injury crashes on **State Highways** in Rodney District 2004 to 2008:

- 11 deaths, 33 serious injuries and 81 minor injuries
- 82 percent of at fault drivers were male
- Most common crash type “loss of control at a bend” (49 crashes)
- 11 percent at intersections
- 19 percent urban
- 32 percent wet road
- 74 percent night time
- Worst three hour time period Midnight till 3am
- Worst months February, March and April (equal), best August
- Worst days Saturday and Sunday (equal), best Wednesday



Speed

Nationally, speed is one of the major contributing factors to road crashes. Reducing speeds 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 situations and it leads to more serious injuries. Research has shown that a one km/h reduction in mean speed can produce a three percent reduction in injury crashes.

Between 2004 and 2008 28 percent of injury crashes in Rodney District involved travelling too fast for the conditions. These crashes resulted in 18 fatalities, 66 serious injuries and 226 minor injuries.

Speed related crashes					
Speed related crashes	2004	2005	2006	2007	2008
Rural	26	22	23	31	36
Urban	10	15	11	13	13
Total	36	37	34	44	49

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 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 main causes contributing to speed related crashes in Rodney District were:

- Handling errors (38 percent of crashes)
- Alcohol (32 percent of crashes)
- General errors of judgement (12 percent of crashes)
- Being aged 15 to 24 (20 percent of all at fault drivers)

The map on the following page shows the locations of injury speed related crashes in Rodney District.

Age and gender of at fault drivers in speed related injury crashes

Drivers age	Male	Female	Total
2004 - 2008			
15-19 years *	51	15	66
20 - 24	24	14	38
25 - 29	23	1	24
30 - 39	24	9	33
40 - 49	18	4	22
50 - 59	7	3	10
60 - 69	2	3	5
70+	0	0	0
Total	149	49	196

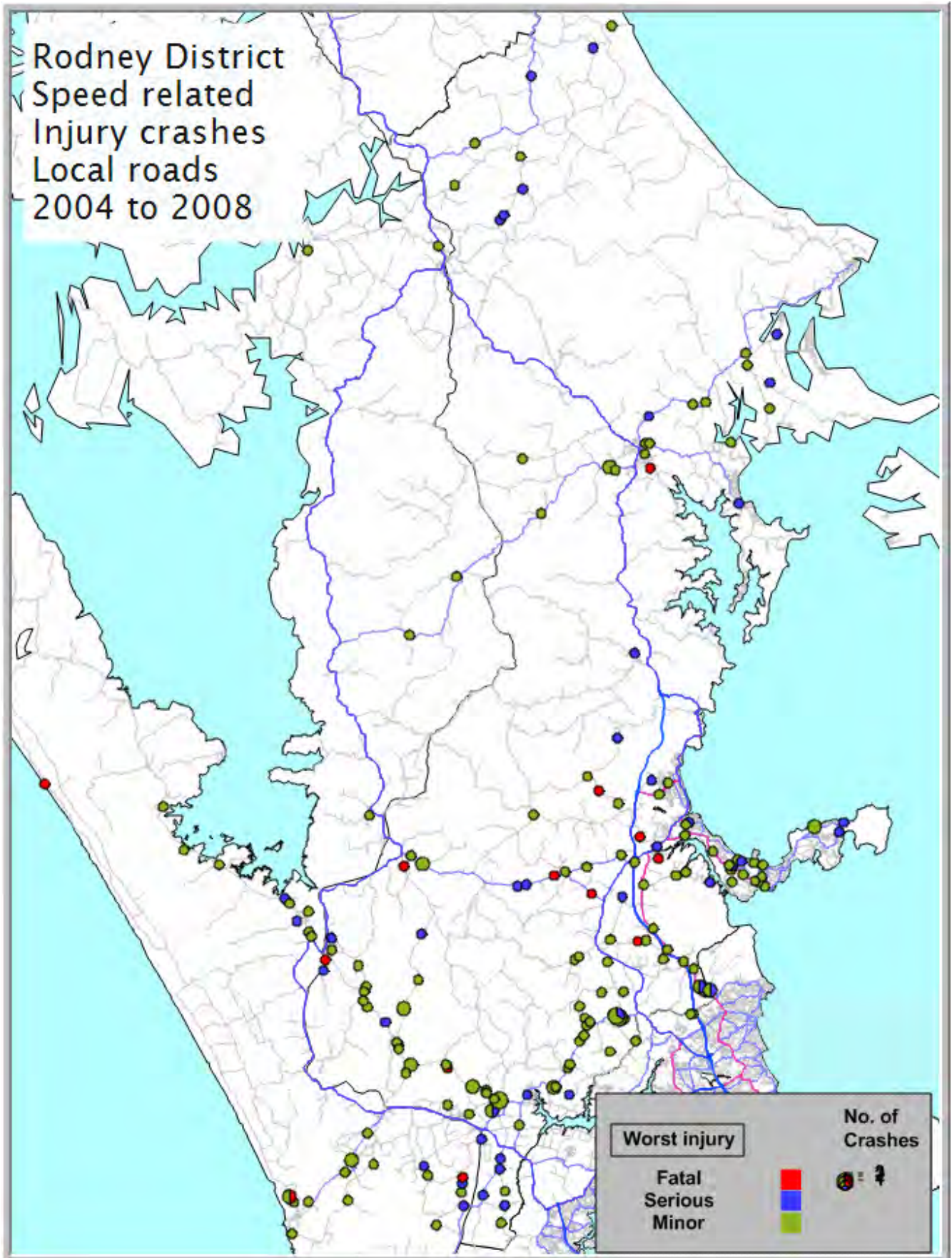
* note age ranges are not equal

Further information about the 200 speed related injury crashes on **local** roads in Rodney District 2004 to 2008:

- 18 deaths, 66 serious injuries and 226 minor injuries
- Most common crash type “Lost control on a bend” (156 crashes)
- 37 percent wet road
- 48 percent night time
- Worst month March, best June
- Worst day Friday, best Tuesday
- Worst three hour time period 3pm to 6pm

Further information about the 97 speed related injury crashes on **State Highways** in Rodney District 2004 to 2008:

- 20 deaths, 39 serious injuries and 110 minor injuries
- Most common crash type “Lost control on a bend” (69 crashes)
- 42 percent wet road
- 37 percent night time
- Worst months February and April (equal), best November
- Worst day Sunday, best Tuesday
- Worst three hour time period 3pm to 6pm



Bend - loss of control or head on

Between 2004 and 2008 fifty-one percent of all injury crashes in Rodney District were loss of control or head on bends. These crashes resulted in 19 fatalities, 123 serious injuries and 435 minor injuries.

Crashes at bends 2004 to 2008				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2004	6	20	44	70
2005	3	14	57	74
2006	2	18	50	70
2007	6	16	66	88
2008	2	25	66	93
Total	19	93	283	395

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 Rodney District were cliffs or banks (85), trees (54), fences (55), posts or poles (51) and ditches (63) from a total of 360 objects struck.

Main characteristics of injury lost control or head on crashes at bends	
Crash characteristic (local roads)	Percentage of crashes
Single vehicle	75 percent
Alcohol	26 percent
Excessive speed for the conditions	39 percent
Road factors	25 percent
Poor handling	38 percent
Rural road	75 percent
Wet road	34 percent
Night time	39 percent

Further information about the 395 injury loss of control or head on crashes on bends on **local** roads in Rodney District 2004 to 2008:

- 19 deaths, 123 serious injuries and 435 minor injuries
- 68 percent of at fault drivers were male
- Most common crash type “loss of control turning right” (189 crashes)
- Most common at fault driver age group 15 to 19 years (25 percent of all at fault drivers)
- 26 percent of crashes involved alcohol
- 39 percent of crashes involved speed too fast for the conditions
- Worst month May, best August and October (equal)
- Worst day Friday, best Wednesday
- Worst three hour time period 3pm till 6pm

Further information about the 204 injury loss of control or head on crashes on bends on **State Highways** in Rodney District 2004 to 2008:

- 26 deaths, 76 serious injuries and 227 minor injuries
- 71 percent of at fault drivers were male
- Most common crash type “loss of control turning right” (78 crashes)
- Most common at fault driver age group 15 to 19 years (22 percent of at fault drivers)
- 24 percent of crashes involved alcohol
- 34 percent of crashes involved speed too fast for the conditions
- Worst month February, best June
- Worst day Saturday, best Wednesday
- Worst three hour time period 3pm till 6pm

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.

In 2008 in Rodney District “road factors” were a contributing factor in 18 percent of fatal and serious crashes and 19 percent of injury crashes.

Additionally in Rodney District between 2004 and 2008 forty-seven percent of all fatal and serious crashes and 50 percent of injury crashes involved roadside hazards being struck.

Road factor related injury crashes					
	2004	2005	2006	2007	2008
Rural	20	12	17	34	26
Urban	7	4	7	10	10
Total	27	16	24	44	36

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.

In the injury crashes in Rodney District where roadside hazards were struck 19 people died, 91 received serious injuries and 407 minor injuries.

Most common types of hazard struck	
Type of hazard 2004 to 2008	Number of times hazard struck
Ditch	96
Cliff or bank	96
Fence	80
Post or pole	70
Tree	63
Parked vehicle	29

Types of road factors in injury crashes	
Road factor type 2004 to 2008	Number of occasions reported
Slippery road*	82
Road surface in poor condition	38
Road obstructed	2
Visibility limited	34
Signs or signals (needed or faulty)	6
Markings (needed or faulty)	1
Street lighting	2

* 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”.

Further information about the 147 road factor related injury crashes on **local** roads in Rodney District 2004 to 2008:

- 11 deaths, 40 serious injuries and 165 minor injuries
- Most common crash type “loss of control at bends” (100 crashes)
- 19 percent at intersections
- 48 percent wet road
- 25 percent night time
- Most common at fault driver age group 15 to 19 years (24 percent of at fault drivers)
- Worst month July, best September and October (equal)

Further information about the 78 road factor related injury crashes on **State Highways** in Rodney District 2004 to 2008:

- 5 deaths, 21 serious injuries and 93 minor injuries
- Most common crash type “loss of control at bends” (44 crashes)
- 17 percent at intersections
- 73 percent wet road
- 26 percent night time
- Most common at fault driver age group 15 to 19 years (20 percent of at fault drivers)
- Worst month December, best May

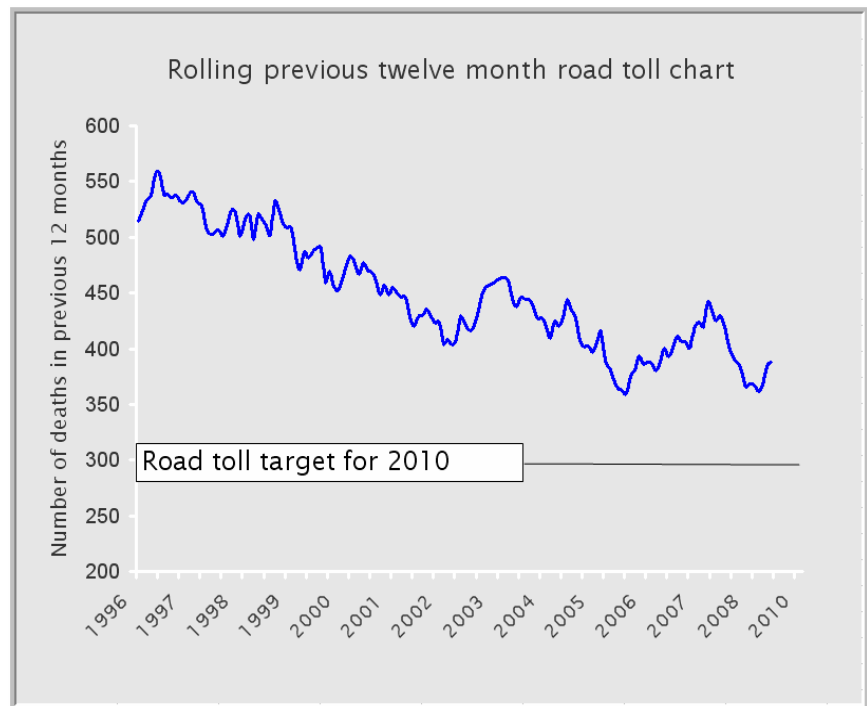
The next ten years—moving beyond Road Safety 2010

In August this year the Ministry of Transport will embark on a nationwide road safety consultation programme as it moves to formulate priorities for the next ten years.

Information will be published on their web site and we would encourage any person or group with an interest in road safety to watch the site carefully for developments. Follow this link:

<http://www.transport.govt.nz/ourwork/Land/landsafety/SaferJourneys-RoadSafetyStrategyto2020/>

The chart on the right illustrates the progress made during the life of the Road Safety 2010 strategy. Although progress has been made it would seem highly unlikely that the target of 300 or fewer fatalities will be met.



Restraints

The Ministry of Transport (MoT) conducts surveys of restraint use. Results are available for front, rear and child restraints although not all at a local authority level.

See the MoT website: <http://www.transport.govt.nz/research/safetybeltstatistics/>

Contacts

New Zealand Transport Agency

Manager Performance Information (Northern)
Chris Hewitt

Senior Programme Advisors (Education — Auckland)
Jill Stoker
Denise Henigan

Private Bag 106 602
Auckland

Phone 09 969 9800

Auckland Media Manager
Ewart Barnsley
Phone 09 368 2142

www.nzta.govt.nz

Local Authority

Road Safety Co-ordinator
Jacki Dawson

Road Safety Manager
Gareth Hughes

Rodney District Council
Private Bag 500
Orewa

Phone 426 5169

New Zealand Police

Superintendent John Kelly
Road Policing Manager
New Zealand Police
Waitematā
Private Bag 33 1046
North Shore City

Phone 09 488 9750
www.police.govt.nz