



briefing notes - road safety issues

Papakura 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 Papakura District.

This report is the tenth road safety report for Papakura 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 Papakura 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 Papakura 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 *

Papakura District

Night time crashes

Alcohol

Road Factors

Straight Road

Nationally *

Speed

Alcohol

Failure to give way

Restraints

2008 road trauma

Casualties

Papakura District

Deaths

1

Serious casualties

14

Minor casualties

103

Crashes

Papakura District

Fatal crashes

1

Serious injury crashes

14

Minor injury crashes

75

Non-injury crashes

259

* not in any specific order of priority

Overview

In 2008 on local roads in Papakura District there were 90 injury crashes and 259 non-injury crashes. In addition there were 36 injury crashes and 77 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 90 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	1	1	18	20
Urban	0	13	85	98
Total	1	14	103	118

Over the last five years the total number of crashes in the district have fluctuated and no specific trends have emerged. On the other hand traffic volumes on local roads have risen substantially in the district from 202.8 million vehicle kilometres travelled (VKT) in 2003/4 to 276.4 million VKT in 2007/8.

When Papakura District is compared with similar local bodies crashes in the dark, crashes involving alcohol, crashes involving struck objects and crashes on straights are all represented above the average for the peer group.

Crash trends in Papakura District				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
1999	4	9	49	62
2000	1	13	44	58
2001	2	12	67	81
2002	0	18	80	98
2003	5	16	57	78
2004	1	7	86	94
2005	3	11	67	81
2006	6	17	70	93
2007	1	12	93	106
2008	1	14	75	90

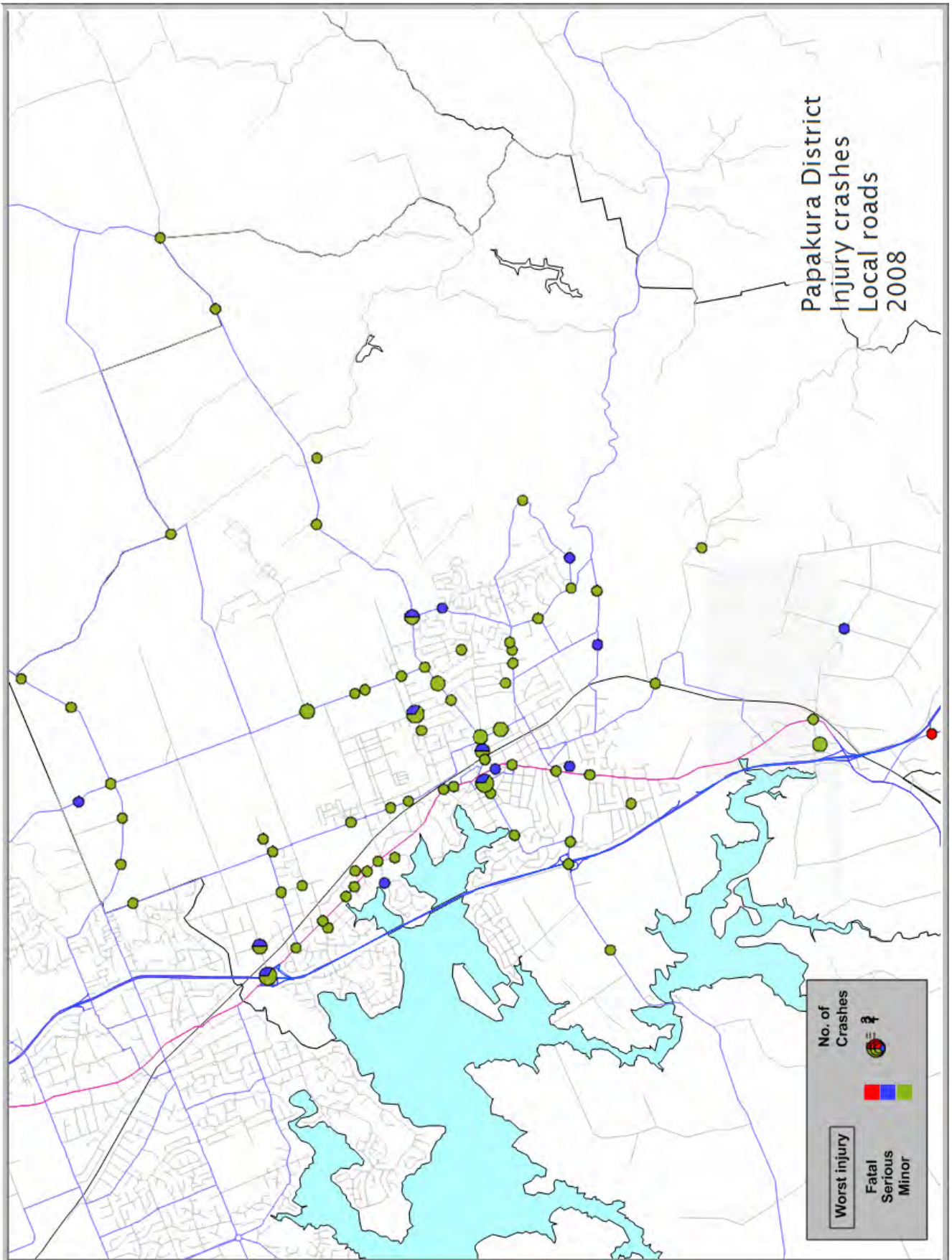
Local road crashes		
Crash type or contributory cause 2004 to 2008	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol	22	19
Too fast	18	14
At bends	16	22
At intersections	42	52
Pedestrians	5	8
Cyclists	10	5
Motorcyclists	16	8
Road factors	7	10
Night time	40	37

Further information about the 464 injury and 1443 non-injury crashes on **local** roads in Papakura District 2004 to 2008:

- Worst month May, best January
- Worst day Friday, best Monday
- 23 percent on wet roads
- 34 percent at night
- 54 percent at intersections
- 876 roadside objects struck
- Social cost of crashes in 2008 \$24.1 m

Further information about the 183 injury and 466 non-injury crashes on **State Highways** in Papakura District 2004 to 2008:

- Worst month February, best June
- Worst day Friday, best Wednesday
- 27 percent on wet roads
- 30 percent at night
- 25 percent at intersections
- 304 roadside objects struck
- Social cost of crashes in 2008 \$12.5 m



Night time crashes

Between 2004 and 2008 there were a total of 170 night time injury crashes on local roads. These resulted in four fatalities, 28 serious injuries and 194 minor injuries.

The proportion of fatal and serious injury crashes occurring during the hours of darkness on local roads in Papakura District is higher than the average for similar districts and for all of New Zealand.

Night time injury crashes					
Road type	2004	2005	2006	2007	2008
Open road	13	7	7	6	3
Urban road	24	24	29	33	24
Total	37	31	36	39	27

Night time crashes		
Worst injury	Weekend (Friday 6pm to Monday 6am)	Weekday (Monday 6am to Friday 6pm)
Fatal	2	2
Injury	90	76
Total	92	78

Many more crashes happen at the weekend compared to during the week. In the region a close relationship is common but not for the weekend to exceed the week.

Locations with three or more injury night time crashes 2004 to 2008 (Including at least one crash in 2008)	
Location (Within a radius of 50m)	Total Injury crashes
Beach Road / Elliott Street	3
Great South Road / Walters Road	3
Mill Road / Hamlin Road	3
Elliot Street / East Street	3

The key crash locations of night time injury crashes occurring between 2004 and 2008 on local roads are shown on the map on the following page. Male drivers under 40 dominate the at fault driver group in night time crashes representing over 60 percent of all at fault drivers.

Age and gender of at fault drivers in injury night time crashes

Ages of drivers	Male	Female
15 - 19 years *	35	15
20 - 24	26	2
25 - 29	11	2
30 - 39	25	6
40 - 49	11	9
50 - 59	4	3
60 - 69	3	1
70+	3	0
Total	118	38

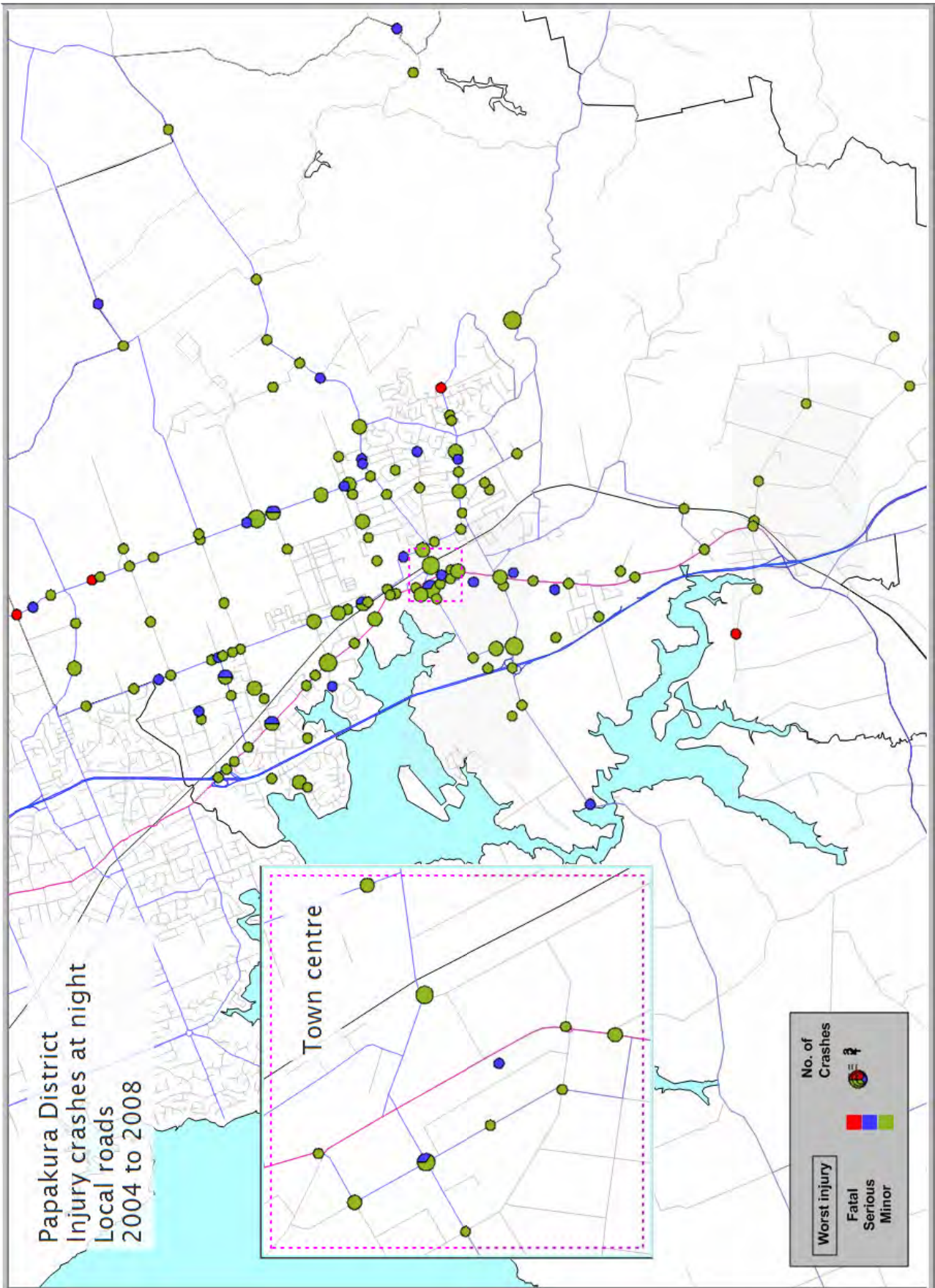
* Note age ranges are not equal

Further information about the 170 injury night time crashes in Papakura District on **local** roads 2004 to 2008:

- Most common crash type is when a driver turning right at a junction hits an oncoming vehicle
- 41 percent alcohol related
- 31 percent wet road
- 18 percent speed related
- Worst month July, best March
- Worst day Saturday, best Tuesday

Further information about the 55 injury night time crashes in Papakura District on **State Highways** 2004 to 2008:

- Most common crash types are loss of control cornering and when a driver turning right at a junction hits an oncoming vehicle (equal)
- 24 percent alcohol related
- 38 percent wet road
- 15 percent speed related
- Worst month June, best March and December (equal)
- Worst day Friday, Saturday and Sunday (equal), best Monday



Alcohol

Alcohol affects the way people drive and 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 (same as 2007) and 15 percent of all injury crashes (the same as 2007).

In Papakura District, alcohol was a factor in 18 percent of injury crashes in 2008 which was just below the average for the past five years.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2004	5	10	15
2005	3	13	16
2006	5	17	22
2007	1	21	22
2008	3	13	16
Total	17	74	91

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

From the beginning of 2007 NZ Transport Agency 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 28 non-injury alcohol related crashes reported by the Police in the Papakura District.

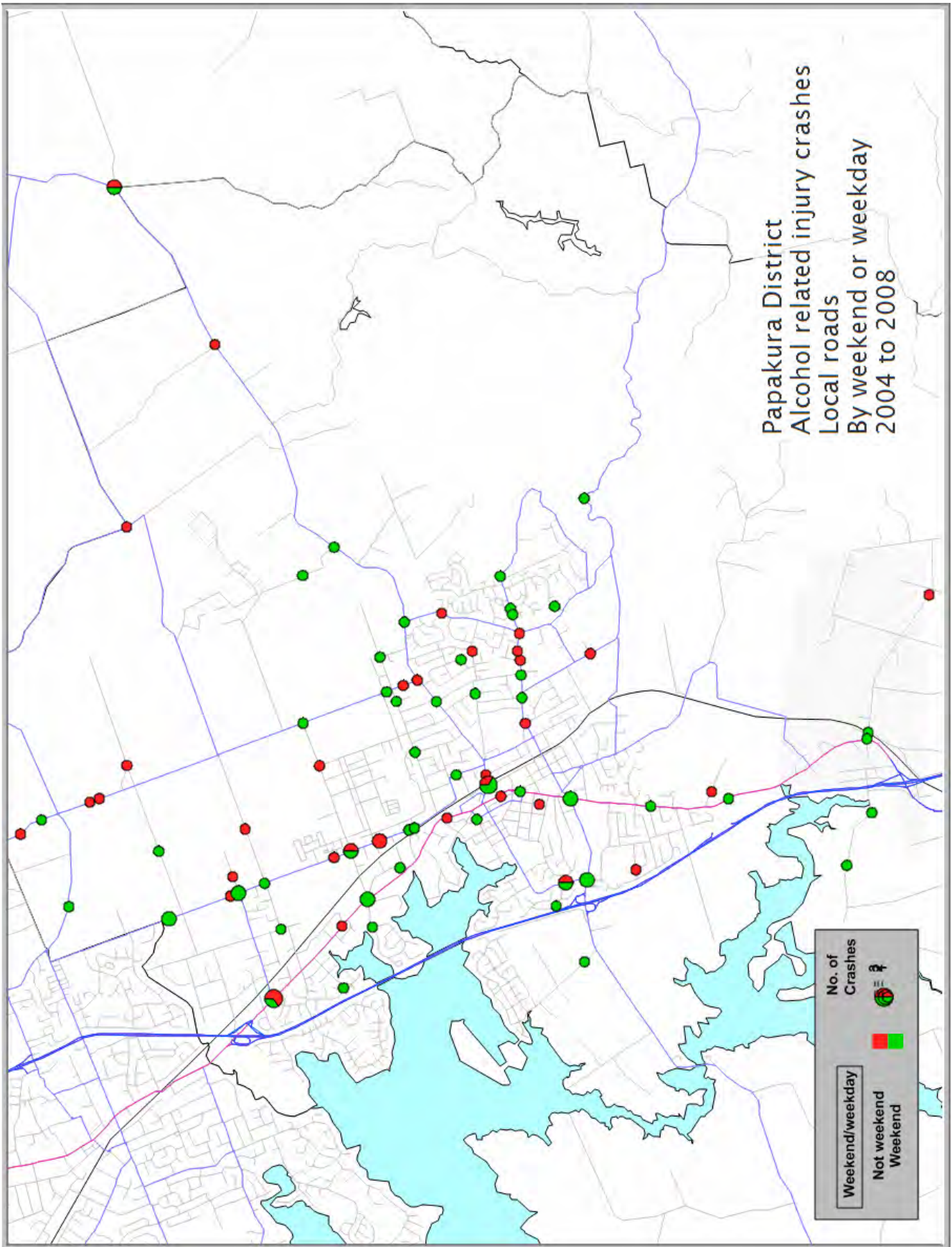
The crash locations of alcohol related injury crashes occurring between 2004 and 2008 on local roads are shown on the map on the following page. The map illustrates the weekend (55 crashes) and weekday (36 crashes) split.

Further information about the 91 alcohol related injury crashes in Papakura District on **local** roads 2004 to 2008:

- 5 deaths, 12 serious injuries and 100 minor injuries
- 78 percent of at fault drivers were male
- Most common at fault driver age group 15 to 19 years
- 45 percent at intersections
- 81 percent urban
- 20 percent wet road
- 76 percent night time
- Worst three hour time period midnight till 3am
- Worst month July, best March
- Worst day Saturday, best Monday

Further information about the 21 alcohol related injury crashes in Papakura District on **State Highways** 2004 to 2008:

- 2 deaths, 4 serious injuries and 29 minor injuries
- 88 percent of at fault drivers were male
- Most common at fault driver age group 15 to 19 years
- 14 percent at intersections
- 10 percent urban
- 24 percent wet road
- 62 percent night time
- Worst three hour time period, midnight to 3am
- Worst months March, September and November (equal), best February and July (equal)
- Worst day Sunday, best Monday and Tuesday (equal)



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 Papakura District, “road factors” were a contributing factor in 7 percent of fatal and serious crashes and 11 percent of injury crashes.

Additionally in Papakura District on local roads between 2004 and 2008 42 percent of all fatal and serious crashes and 40 percent of injury crashes involved roadside hazards being struck.

Road factor related injury crashes					
Road type	2004	2005	2006	2007	2008
Urban	3	5	5	12	6
Rural	5	2	1	3	4
Total	8	7	6	15	10

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 crashes involving injury in Papakura District where a roadside hazard was struck 6 people died, 31 received serious injuries and 205 minor injuries. The most commonly struck objects are shown in the table below.

Most common types of hazard struck (all injury crashes in Papakura District)	
Type of hazard 2004 to 2008	Number of times hazard struck
Fence	62
Post or Pole	42
Tree	27
Parked Vehicle	27
Ditch	20

Types of road factors in injury crashes	
Road factor type 2004 to 2008	Number of occasions reported
Slippery road *	26
Road surface in poor condition	8
Road obstructed	3
Visibility limited	9
Signs or signals (needed or faulty)	2
Markings (needed or faulty)	3
Street lighting	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”.

Further information about the 46 road factor related injury crashes in Papakura District on **local** roads (2004 to 2008):

- 2 deaths, 3 serious injuries and 55 minor injuries
- Most common crash type, loss of control turning right
- 33 percent at intersections
- 67 percent urban
- 57 percent wet road
- 33 percent night time
- Worst months January, March and July (equal), best October

Further information about the 18 road factor related injury crashes in Papakura District on **State Highways** (2004 to 2008):

- 2 deaths, 5 serious injuries and 20 minor injuries
- Most common crash type, rear-end queue
- 22 percent at intersections
- 6 percent urban
- 67 percent wet road
- 44 percent night time
- Worst months February and April (equal), best March and August (equal)

Straight road –loss of control or head on

Between 2004 and 2008 14 percent of all injury crashes in Papakura District involved loss of control or head on crashes on straight roads. Additionally 22 percent of fatal and serious crashes in the district were of this type. There were 65 of these crashes between 2004 and 2008 resulting in 5 fatalities, 16 serious injuries and 74 minor injuries.

Loss of control — straight roads injury crashes 2004 to 2008

Crash year	Fatal crashes	Serious crashes	Minor crashes
2004	1	0	9
2005	3	1	8
2006	0	8	8
2007	0	2	14
2008	1	0	10
Total	5	11	49

Most of these crashes occurred when a driver loses control of their vehicle and either runs off the road or collides 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 most common hazards struck in injury loss of control crashes on straights 2004-2008 on local roads were fences 17, posts/poles 12 and trees 10.

Main characteristics of injury loss of control crashes— straight roads 2004 to 2008

Crash characteristic	Percentage of crashes
Single vehicle	71
Alcohol	42
Excessive speed for the conditions	18
Road factors	9
Poor handling	31
Rural road	34
Wet road	23
Night time	54

Further information about the 65 injury loss of control crashes on straights on **local** roads in Papakura District (2004 to 2008):

- 5 deaths, 16 serious injuries and 74 minor injuries
- 71 percent of at fault drivers were male
- Most common crash type “off road to left”
- Most common at fault driver age group 15 to 19 years
- 42 percent of crashes involved alcohol
- 18 percent of crashes involved speed
- 9 percent involved “road factors”
- 17 percent involved fatigue
- 26 percent involved fences as a struck object
- 23 percent in the wet
- 54 percent at night
- Worst month July, best October
- Worst day Thursday, best Tuesday
- Worst three hour time period 3pm to 6pm

Further information about the 35 injury loss of control crashes on straights on **State Highways** in Papakura District (2004 to 2008):

- 1 death, 11 serious injuries and 38 minor injuries
- 75 percent of at fault drivers were male
- Most common crash type “off road to left”
- Most common at fault driver age group 15 to 19 years
- 17 percent of crashes involved alcohol
- 26 percent of crashes involved speed
- 11 percent involved “road factors”
- 31 percent involved fatigue
- 43 percent involved guard rails as a struck object
- 37 percent in the wet
- 49 percent at night
- Worst month February, best March
- Worst day Friday, best Monday, Tuesday and Wednesday (equal)
- Worst three hour time period 6am to 9am

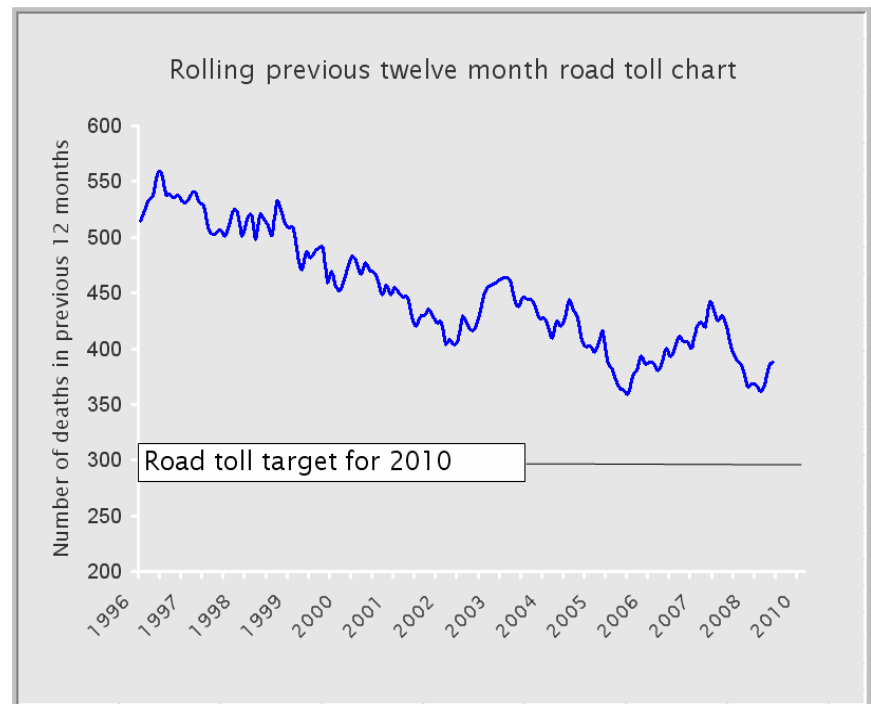
The next ten years—moving beyond Road Safety 2010

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/>

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