

New Zealand Government

briefing notes - road safety issues

Waitakere City

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 Waitakere City.

All the material unless otherwise stated in this report applies only to local roads. Local roads are all non State Highway roads in Waitakere City.

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 Waitakere City 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 Waitakere City and we encourage safety engaged staff at Waitakere City 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 re	oad safet	y issues *
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Waitakere City	
Alcohol	
Speed	
Bends	

2009 road trauma

Casualties	Waitakere City
Deaths	12
Serious casualties	44
Minor casualties	471

Crashes at night

National priorities from Road Safety 2020— Safer Journeys

Sater Journeys
Speed
Alcohol / Drugs
Young Drivers
Roads and Roadsides

Crashes	Waitakere City
Fatal crashes	12
Serious injury crashes	32
Minor injury crashes	357
Non-injury crashes	1153

Motorcyclists

^{*} not in any specific order of importance

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.

AREAS OF CONCERN WE WILL ADDRESS	WHERE WE WILL TAKE ACTION ACROSS THE SAFE SYSTEM			
	SAFE ROADS AND ROAD- SIDES	SAFE SPEEDS	SAFE VEHICLE	SAFE ROAD USE
Areas of high concern				
Reducing alcohol/drug impaired driving			1	1
Increasing the safety of young drivers	1	1	1	1
Safe roads and roadsides	1			
Safe speeds	1	1	1	
Increasing the safety of motorcycling	1	1	1	1
Areas of medium conce	rn			
Improving the safety of the light vehicle fleet			1	1
Safe walking and cycling	1	1	1	1
Improving the safety of heavy vehicles	1	1	1	1
Reducing the impact of fatigue	1	1	1	1
Addressing distraction	1		1	1
Reducing the impact of high risk drivers		1	1	1
Areas of continued and	emergin	g focus		
Increasing the level of restraint use			1	1
Increasing the safety of older New Zealanders	1	1	1	1

Table source: Ministry of Transport 2020 Safer Journeys

reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

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
Measure	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

Waitakere City overview

In 2009 on local roads in Waitakere City there were 401 injury crashes and 1153 non-injury crashes.

In addition on State Highways in Waitakere City there were 46 injury crashes and 39 non-injury crashes.

The table below shows the number of injuries resulting from the 401 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 2009

	Fatalities	Serious injuries	Minor injuries	Total
Rural	5	3	40	48
Urban	7	41	431	479
Total	12	44	471	527

In the last decade fatal and serious crashes have remained relatively consistent. Fatal crashes have fluctuated with a "good" year in 2008 to a "bad" year in 2009.

Alcohol, speed, night, bend and wet road related crashes appear in Waitakere at levels much higher than in peer local bodies and over the national values.

There is also an issue with the low number of full licences held by at fault drivers crashing in Waitakere. In fatal and serious crashes 52 percent of drivers do not have a full licence.

Crash trends in Waitakere City

Year	Fatal crashes	Serious crashes	Minor crashes	Total Crashes
2000	4	48	203	255
2001	3	62	214	279
2002	10	72	281	363
2003	5	69	301	375
2004	6	57	323	386
2005	6	46	291	343
2006	7	59	286	352
2007	5	44	310	359
2008	2	42	342	386
2009	12	32	357	401

Local road crash characteristics 2005	5 to 200	9
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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	28	17
Speed	29	20
At bends	38	28
At night	44	36
Road factors	11	8
Wet road	25	29

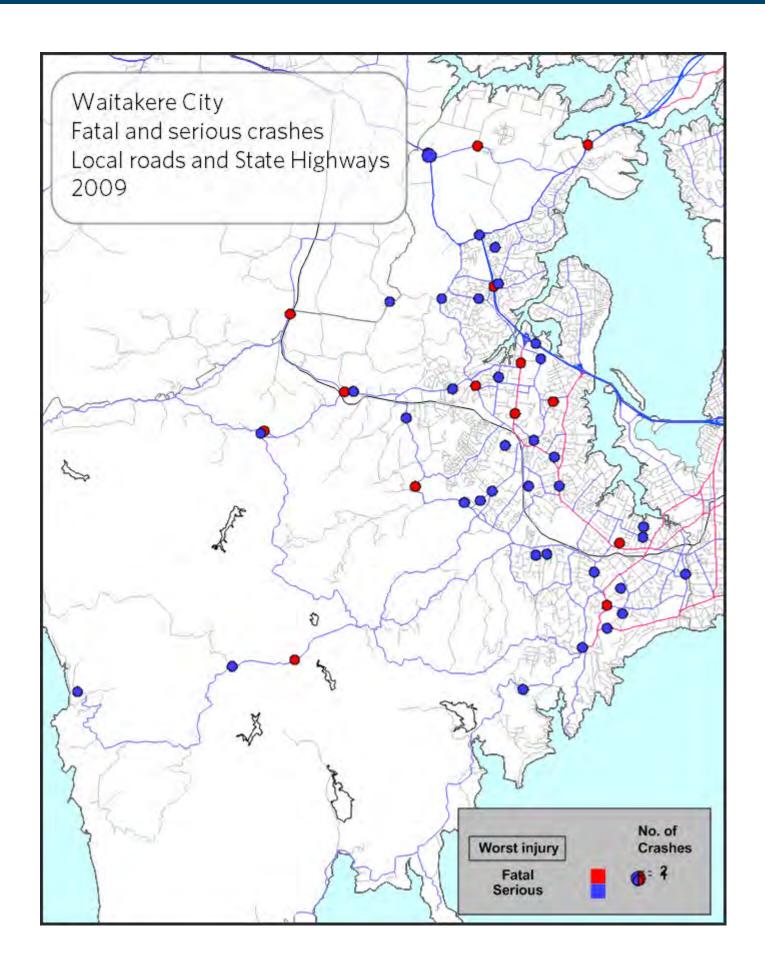
Further information about the 1841 injury and 5636 non-injury crashes on **local** roads in Waitakere City 2005 to 2009:

- 33 deaths, 258 serious injuries and 2107 minor injuries
- Worst month May, best January
- Worst day Friday, best Monday
- 27 percent on wet roads
- 34 percent at night
- 46 percent at intersections
- 3273 roadside objects struck *
- Most represented five year age group in at fault drivers in injury crashes, 15 to 19 years (23 percent of at fault drivers)
- Social cost of crashes in 2009 \$121.2m

Further information about the 253 injury and 748 non-injury crashes on **State Highways** in Waitakere City 2005 to 2009:

- 4 deaths, 25 serious injuries and 294 minor injuries
- Worst month April, best September
- Worst day Friday, best Monday
- 26 percent on wet roads
- 31 percent at night
- 33 percent at intersections
- 387 roadside objects struck *
- Most represented five year age group) block in at fault drivers in injury crashes, 20 to 24 years (23 percent of at fault drivers)
- Social cost of crashes in 2009 \$23.5m

^{*} 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 Waitakere City, alcohol was a factor in 28 percent fatal and serious crashes and 17 percent of injury crashes.

Number of alcohol related injury crashes

Crash year	Open road	Urban road	Total
2005	9	51	60
2006	2	69	71
2007	2	44	46
2008	6	60	66
2009	5	69	74
Total	24	293	317

(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	24	26
20-24	20	28
25-29	12	18
30-34	12	10
35-39	12	7
40-44	8	3
45-49	4	2
50-54	3	2
55-59	3	2
60-64	1	1
65-69	0	0
70-74	0	0
75+	1	0

It is interesting to note the changing age patterns of those choosing to drink and crash. In Waitakere City there has been a marked shift from being so weighted to young drivers to a broader age spread. Twenty-five years ago 72 percent of at fault drivers were aged under 30. Today this is 56 percent.

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 Waitakere this has not translated into an increased proportion in youth alcohol related crashes.

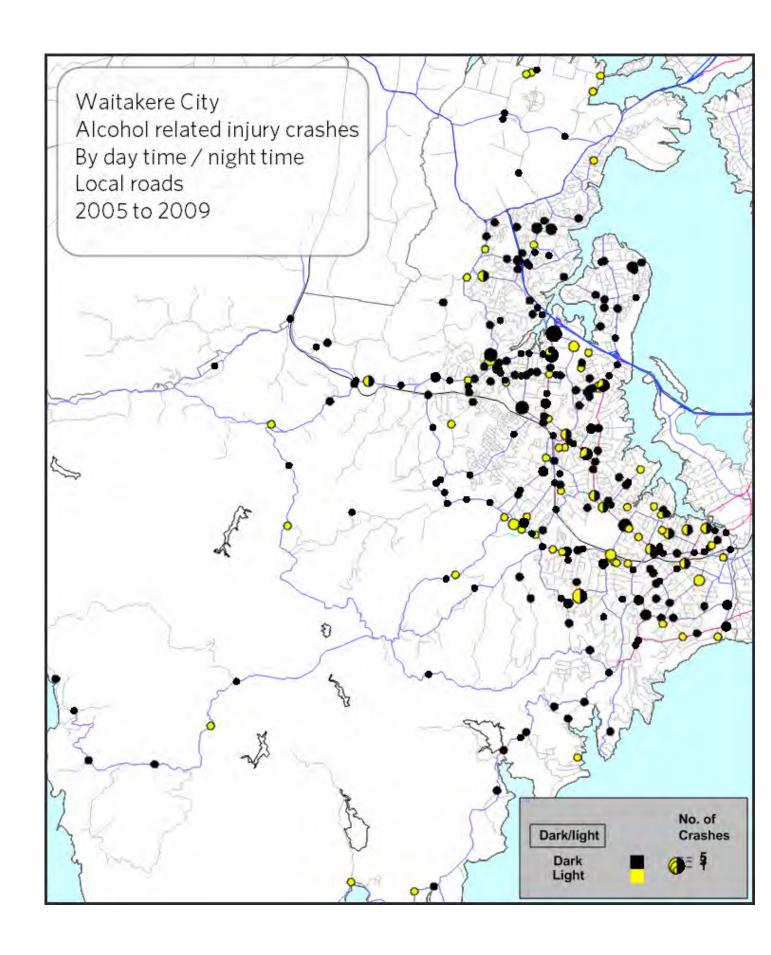
In addition it does need to be noted that the number of alcohol related injury crashes has risen from 245 in five years 25 years ago to the 317 in the last five years.

Further information about the 317 alcohol related injury crashes on **local** roads in Waitakere City 2005 to 2009:

- 14 deaths, 77 serious injuries and 368 minor injuries
- 84 percent of at fault drivers were male
- Most common crash type "lost control at a bend" (157 crashes)
- 37 percent at intersections
- 92 percent urban
- 26 percent wet road
- 76 percent night time
- Worst three hour time period, 9pm to midnight
- Worst month June, best March
- Worst day Saturday, best Monday
- Number of roadside objects struck 304

Further information about the 36 alcohol related injury crashes on **State Highways** in Waitakere City 2005 to 2009:

- 2 deaths, 5 serious injuries and 40 minor injuries
- 78 percent of at fault drivers were male
- Most common crash type "lost control at a bend" (12 crashes)
- 31 percent at intersections
- 25 percent urban
- 31 percent wet road
- 75 percent night time
- Worst three hour time period, midnight to 3am
- Worst month April, best May
- Worst day Sunday, best Monday
- Number of roadside objects struck 34



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 percent of injury crashes in Waitakere City involved travelling too fast for the conditions.

Speed related injury crashes					
	2005	2006	2007	2008	2009
Rural	18	8	11	9	13
Urban	59	66	56	64	71
Total	77	74	67	73	84

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 here 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 Waitakere City.

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

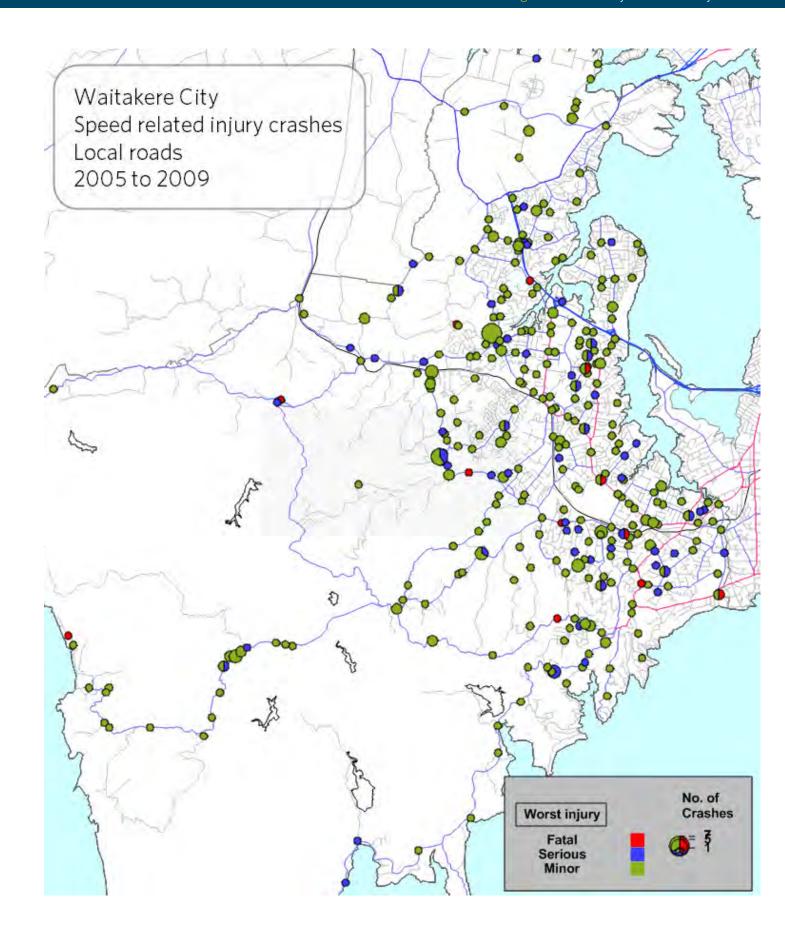
Age group	Male	Female	Total
15-19 years	114	23	137
20 - 24	81	6	87
25 - 29	32	7	39
30 - 39	52	10	62
40 - 49	16	10	26
50 - 59	8	5	13
60 - 69	2	0	2
70+	5	2	7
Total	310	63	373

Further information about the 375 speed related injury crashes on **local** roads in Waitakere City 2005 to 2009:

- 13 deaths, 83 serious injuries and 453 minor injuries
- Most common crash type "lost control on a bend" (269 crashes)
- 40 percent wet road
- 54 percent night time
- 33 percent include alcohol as a factor
- Worst day Friday, best Wednesday
- Worst three hour time period, 9pm to midnight

Further information about the 40 speed related injury crashes on **State Highways** in Waitakere City 2005 to 2009:

- 3 deaths, 9 serious injuries and 43 minor injuries
- Most common crash type "lost control at a bend" (16 crashes)
- 43 percent wet road
- 63 percent night time
- 30 percent include alcohol as a factor
- Worst day Saturday, best Monday
- Worst three hour time period, midnight to 3am



Crashes at bends

Between 2005 and 2009 thirty-eight percent of fatal and serious crashes and twenty-eight percent of all injury crashes in Waitakere City were loss of control or head on bends.

Crashes at bends 2005 to 2009

	Fatal crashes	Serious crashes	Minor crashes	Total
2005	4	16	73	93
2006	2	20	74	96
2007	3	13	82	98
2008	0	22	90	112
2009	3	13	91	107
Total	12	84	410	506

Sixty-two percent of at fault drivers involved in crashes at bends were aged under 30 and 31 percent were aged under 20.

Fuelled by alcohol and travelling too fast for their own abilities and those appropriate to the conditions, especially in the wet, are all too common themes in bend related crashes in the city (see bullet points).

Age group and gender of at fault drivers in bend related injury crashes 2005 to 2009

Age group	Female	Male	Total
15 to 19	30	123	153
20 to 24	10	84	94
25 to 29	17	38	55
30 to 34	18	38	56
35 to 39	7	32	39
40 to 44	9	25	34
45 to 49	10	9	19
50 to 54	3	8	11
55 to 59	2	9	11
60 to 64	3	5	8
65 to 69	1	3	4
70 to 74	1	1	2
75+	2	3	5
Total	113	378	491

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 offroad event turning into something far more serious.

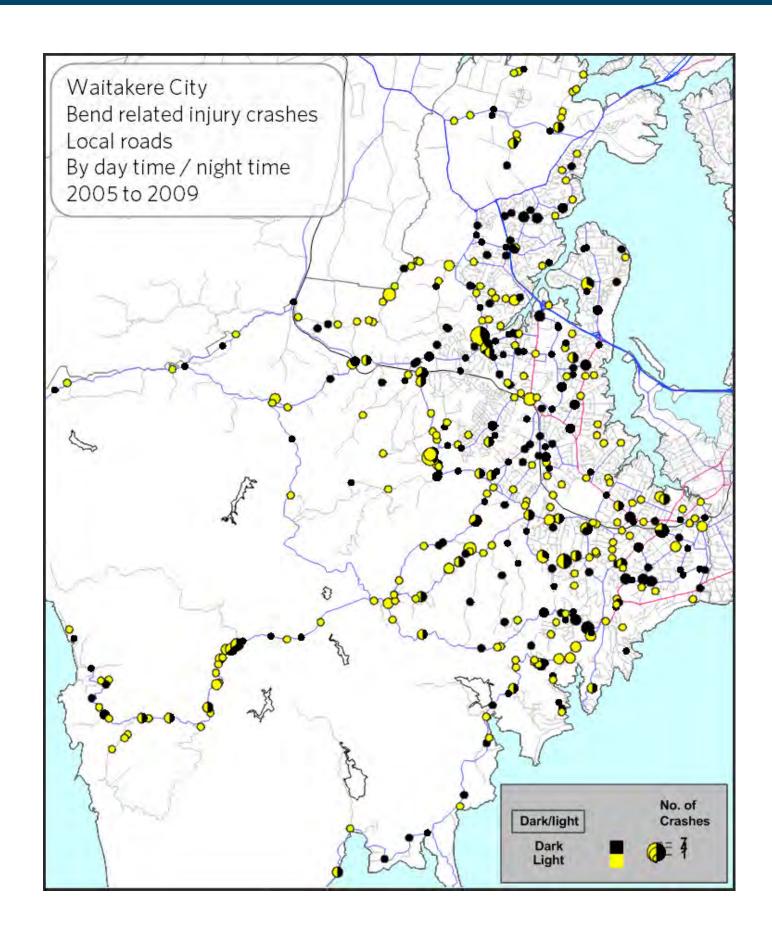
The most common roadside hazards struck in injury loss of control crashes at bends in Waitakere City were cliffs and banks (68), ditches (44), fences (77), trees (93) and posts and poles (73) from a total of 521 objects struck.

Further information about the 506 injury loss of control or head on crashes on bends on **local** roads in Waitakere City 2005 to 2009:

- 12 deaths, 106 serious injuries and 581 minor injuries
- 77 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (220 crashes)
- 31 percent of crashes involved alcohol
- 40 percent in the wet
- 53 percent of crashes involved speed too fast for the conditions
- Worst month June, best August
- Worst day Friday, best Tuesday
- Worst three hour time period, 9pm to midnight

Further information about the 33 injury loss of control or head on crashes on bends on **State Highways** in Waitakere City 2005 to 2009:

- 2 deaths, 7 serious injuries and 37 minor injuries
- 72 percent of at fault drivers were male
- Most common crash type "loss of control turning left" (17 crashes)
- 36 percent of crashes involved alcohol
- 48 percent of crashes involved speed too fast for the conditions
- 45 percent in the wet
- Worst day Sunday, best Wednesday
- Worst three hour time period, midnight to 3am
- Number of roadside objects struck 44
- Most common roadside object struck fence (10)



Night time crashes

Between 2005 and 2009 forty-four percent of fatal and serious crashes in Waitakere City occurred at night.

Night time injury crashes					
Road type	2005	2006	2007	2008	2009
Open	11	12	12	10	9
Urban	121	124	106	133	117
Total	132	136	118	143	126

Almost half of all night time crashes in Waitakere City are the responsibility of drivers under the age of 25 years and male drivers in particular.

Data from the Ministry of Transport's Household Travel Survey can give an approximate value for the amount of travel under taken at night for various age groups to give some perspective to the rate these age groups are crashing.

Looking at night travel as a whole approximately 14 percent is undertaken by 15 to 24 year olds, 20 percent by 25 to 34 year olds, 24 percent by 35 to 44 year olds, 24 percent by 45 to 54 year olds and 19 percent by all other age groups.

Age group and gender of at fault drivers in night time injury crashes 2005 to 2009

Ages group	Female	Male	Total
15 to 19	36	127	163
20 to 24	22	105	127
25 to 29	14	63	77
30 to 34	17	38	55
35 to 39	8	37	45
40 to 44	16	35	51
45 to 49	9	17	26
50 to 54	4	9	13
55 to 59	4	8	12
60 to 64	3	8	11
65 to 69	1	1	2
70 to 74	2	0	2
75+	1	2	3
Total	137	450	587

It is interesting to note in the bullet points below that alcohol as a factor seems far more prevalent on local roads than State Highways.

This could suggest that some drivers see local roads as the soft option in regards to avoiding probable enforcement intervention.

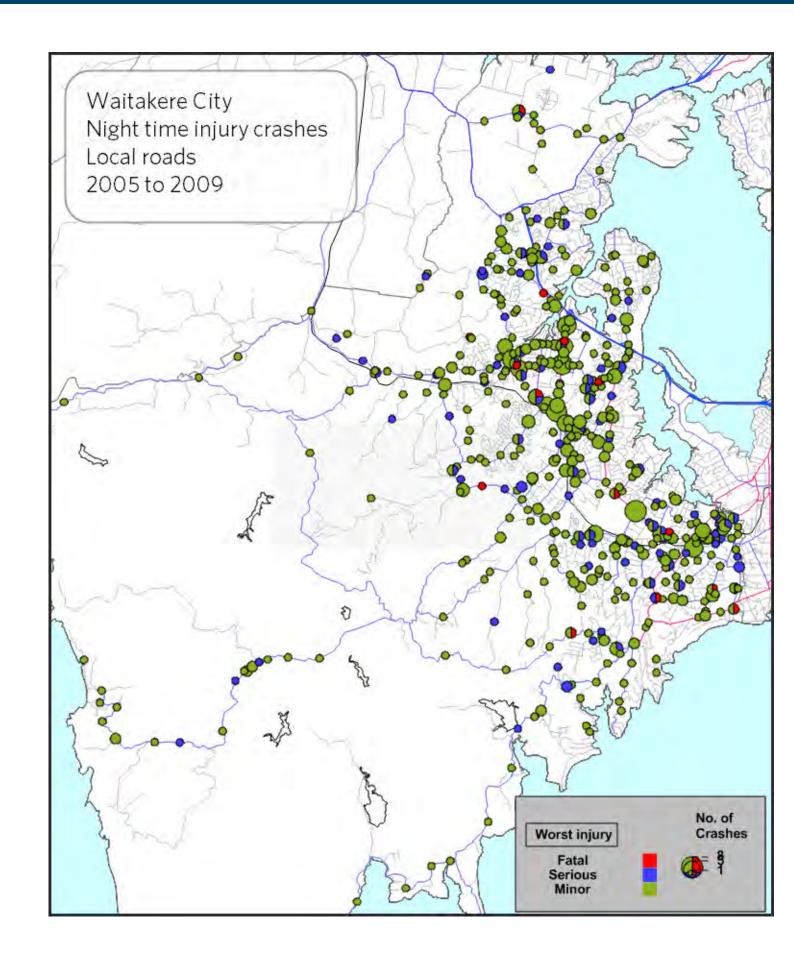
Some redistribution of alcohol check points in particular may be worth considering.

Further information about the 655 injury night time crashes on **local** roads in Waitakere City 2005 to 2009:

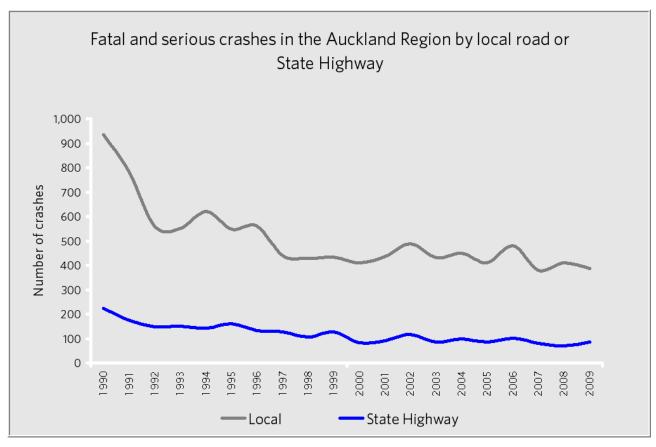
- 16 deaths, 118 serious injuries and 768 minor injuries
- 77 percent of at fault drivers were male
- Most common crash type "loss of control at a bend" (249 crashes)
- 37 percent of crashes involved alcohol
- 6 percent of crashes involved fatigue as a contributory factor
- 31 percent of crashes involved speed too fast for the conditions
- 32 percent were in the wet
- 41 percent of crashes were at intersections
- 48 percent of crashes involved a roadside object being struck

Further information about the 82 injury night time crashes on **State Highways** in Waitakere City 2005 to 2009:

- 4 deaths, 13 serious injuries and 89 minor injuries
- 66 percent of at fault drivers were male
- Most common crash type "loss of control on a straight" and "rear end" (equal at 20 each)
- 33 percent of crashes involved alcohol
- 5 percent of crashes involved fatigue as a contributory factor
- 30 percent of crashes involved speed too fast for the conditions
- 30 percent of crashes were in the wet
- 27 percent of crashes were at intersections
- 51 percent of crashes involved a roadside object being struck



Looking back—the last two decades ...



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