

New Zealand Government

briefing notes - road safety issues

Manukau 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 Manukau City.

All the material unless otherwise stated in this report applies only to local roads. Local roads are all non State Highway roads in Manukau 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 overrepresented when Manukau 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 Manukau City and we encourage safety engaged staff at Manukau 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 road safety issues *	2009 road trauma			
Manukau City	Casualties	Manukau City		
Alcohol	Deaths	14		
Speed	Serious casualties	110		
Intersections	Minor casualties	627		

National priorities from	n Road Safety 2020—

National priorities from Road Safety 2020— Safer Journeys	Crashes	Manukau City
Speed	Fatal crashes	12
Alcohol / Drugs	Serious injury crashes	95
Young Drivers	Minor injury crashes	481
Roads and Roadsides	Non-injury crashes	1850

Motorcyclists

Night time crashes

^{*} 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		VE WILL TAI		V
	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	>			
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

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	Saf	fer roads and road	sides	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

Manukau City overview

In 2009 on local roads in Manukau City, there were 588 injury crashes and 1850 non-injury crashes. In addition on State Highways, there were 106 injury crashes and 361 non-injury crashes.

The table below shows the number of injuries resulting from the 588 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	1	21	65	87
Urban	13	89	562	664
Total	14	110	627	751

Fatal crashes in Manukau City for the past ten years have been relatively stable, with serious crashes showing a small upward trend. Minor crashes on the other hand have been trending upwards for the whole decade. The city has a particularly high percentage of alcohol and speed related crashes when it is compared with similar cities. Young drivers are also a problem in the city with the percentage of at fault drivers in this group appearing in higher percentages than peer cities, more so with fatal and serious crashes. Youth is a key focus of "Safer Journeys" and to this end we have included an age group table in each issue in this note.

Crash trends in Manukau City

Crash trends in Manakad City						
Fatal crashes	Serious crashes	Minor crashes	Total crashes			
12	78	334	424			
14	80	345	439			
14	82	420	516			
14	86	425	525			
15	76	372	463			
15	58	380	453			
11	107	495	613			
14	74	504	592			
12	90	466	568			
12	95	481	588			
	Fatal crashes 12 14 14 14 15 15 11 14 12	Fatal crashes Serious crashes 12 78 14 80 14 82 14 86 15 76 15 58 11 107 14 74 12 90	Fatal crashes Serious crashes Minor crashes 12 78 334 14 80 345 14 82 420 14 86 425 15 76 372 15 58 380 11 107 495 14 74 504 12 90 466			

Local road cr	ach charact	prictice 1	2005 to	2000
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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	33	21
Speed	29	18
Intersections	41	49
Night time crashes	49	39
Pedestrian crashes	20	11
At fault drivers aged under 25	44	39

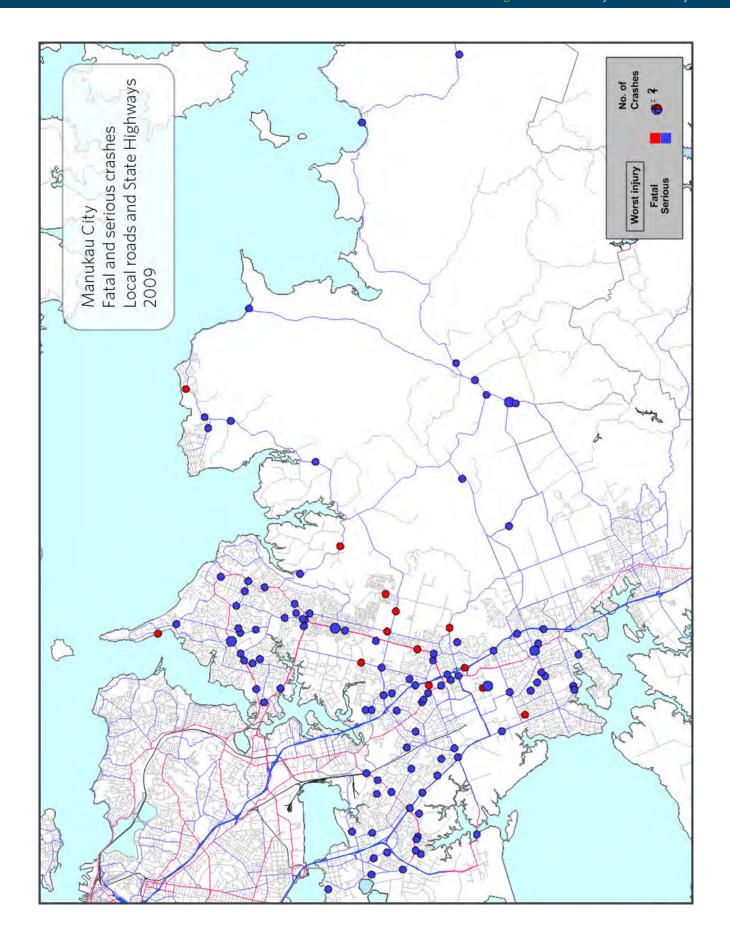
Further information about the 2814 injury and 9784 non-injury crashes on **local** roads in Manukau City 2005 to 2009:

- 73 deaths, 516 serious injuries and 3099 minor injuries
- Worst month May, best January
- Worst day Friday, best Sunday
- 23 percent on wet roads
- 35 percent at night
- 53 percent at intersections
- 5237 roadside objects struck *
- Most represented five year age group in at fault drivers in injury crashes, 20 to 24 years (22 percent of at fault drivers)
- Social cost of crashes in 2009 \$182 m

Further information about the 537 injury and 1701 non-injury crashes on **State Highways** in Manukau City 2005 to 2009:

- 9 deaths, 70 serious injuries and 698 minor injuries
- Worst month May, best February
- Worst day Friday, best Sunday
- 27 percent on wet roads
- 34 percent at night
- 33 percent at intersections
- 737 roadside objects struck *
- Most represented five year age group in at fault drivers in injury crashes, 20 to 24 years (24 percent of at fault drivers)
- Social cost of crashes in 2009 \$30m

^{*} 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 Manukau City, alcohol was a factor in 33 percent of fatal and serious crashes and 21 percent of injury crashes.

Number of alcohol related injury crashes

Crash year	Open road	Urban road	Total
2005	14	82	96
2006	11	133	144
2007	9	106	115
2008	14	106	120
2009	14	108	122
Total	62	535	597

(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 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	23	19
20-24	26	31
25-29	11	16
30-34	11	12
35-39	10	9
40-44	7	5
45-49	4	3
50-54	3	2
55-59	2	2
60-64	2	1
65-69	1	0
70-74	0	0
75+	0	0

The number of alcohol related injury crashes has been relatively stable since 2007.

Learner and Restricted Licence holders accounted for 39 percent of drivers at fault or part fault in alcohol related injury crashes compared to 33 percent for full licence holders. Males were four times more likely to be at fault or part fault in injury crashes than females.

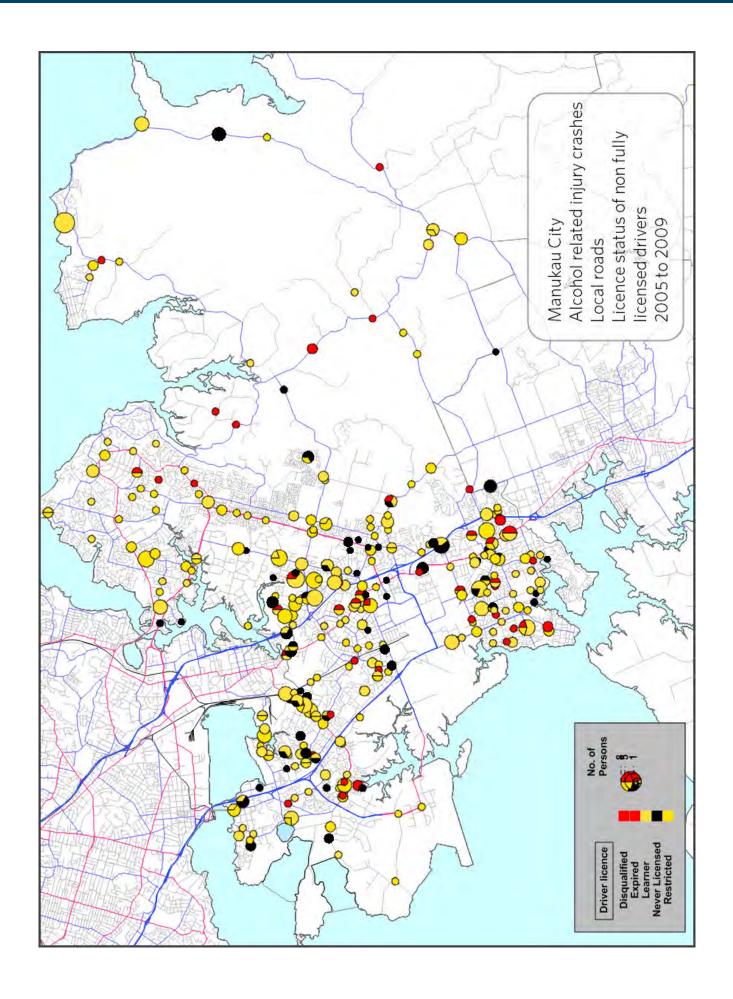
A map of alcohol related injury crashes which involved learner and restricted licence holders are on the following page.

Further information about the 597 alcohol related injury crashes on **local** roads in Manukau City 2005 to 2009:

- 34 deaths, 164 serious injuries and 642 minor injuries
- 81 percent of at fault drivers were male
- Most common crash type "head on or loss of control on a bend" (224 crashes)
- 43 percent at intersections
- 90 percent urban
- 25 percent wet road
- 76 percent night time
- Worst three hour time period, 9pm to midnight
- Worst month December, best February
- Worst day Saturday, best Monday
- Number of roadside objects struck, 550
- Most common object struck, fence

Further information about the 81 alcohol related injury crashes on **State Highways** in Manukau City 2005 to 2009:

- 4 deaths, 23 serious injuries and 106 minor injuries
- 77 percent of at fault drivers were male
- Most common crash type "head on or lost control on a straight road" (36 crashes)
- 35 percent at intersections
- 31 percent urban
- 21 percent wet road
- 73 percent night time
- Worst three hour time period, midnight to 3am
- Worst month December, best May
- Worst days Saturday and Sunday, best Tuesday
- Number of roadside objects struck, 65
- Most common object struck, guard rail



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, eighteen percent of injury crashes in Manukau City involved travelling too fast for the conditions.

Speed related injury crashes						
Speed related crashes	2005	2006	2007	2008	2009	
Rural	25	20	23	17	17	
Urban	72	95	69	97	68	
Total	97	115	92	114	85	

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 Manukau City.

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

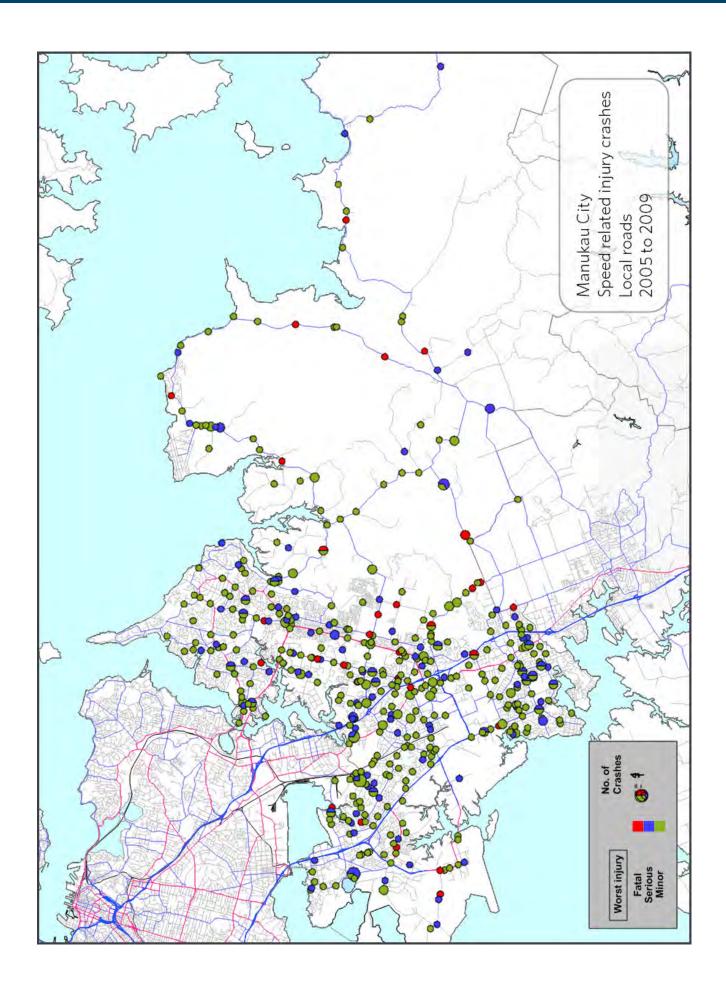
Age group	Male	Female	Total
15-19 years	123	29	152
20 - 24	119	26	145
25 - 29	55	8	63
30 - 39	50	10	60
40 - 49	30	8	38
50 - 59	10	6	16
60 - 69	10	2	12
70+	6	0	6
Total	403	89	492

Further information about the 503 speed related injury crashes on **local** roads in Manukau City 2005 to 2009:

- 39 deaths, 146 serious injuries and 535 minor injuries
- Most common crash type "lost control on a bend" (290 crashes)
- 29 percent wet road
- 56 percent night time
- Worst month May, best January
- Worst day Saturday, best Tuesday
- Worst three hour time period, midnight to 3am

Further information about the 71 speed related injury crashes on **State Highways** in Manukau City 2005 to 2009:

- 3 deaths, 15 serious injuries and 103 minor injuries
- Most common crash type "lost control on a bend" (23 crashes)
- 24 percent wet road
- 54 percent night time
- Worst month June, best May
- Worst day Saturday, best Tuesday
- Worst three hour time period, 3pm to 6pm



Intersections

During the five year period 2005 to 2009 within Manukau City there were a total of 1368 injury crashes at intersections.

Injuries	at Intersection	s (casualties)

Injury type	2005	2006	2007	2008	2009
Fatality	1	3	2	2	4
Serious	29	63	45	45	49
Minor	247	367	361	320	307
Total	277	433	408	367	360

The most common crash type at intersections is when a driver turns right and is hit by a vehicle approaching from the opposite direction on the same road (291 crashes).

Younger drivers aged 15 to 24 years are more highly represented in intersection crashes than any other age group. Males (who do drive further than woman - MoT Household Travel Survey) are very highly represented as at fault drivers at intersection crashes in the city. Failure to give way or stop accounted for 49 percent of injury crashes (665 crashes).

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

Age group	Male	Female	Total
15 to 19	150	64	214
20 to 24	145	80	226
25 to 29	98	53	151
30 to 34	79	46	125
35 to 39	80	27	107
40 to 44	69	34	103
45 to 49	53	28	81
50 to 54	37	26	63
55 to 59	31	14	45
60 to 64	20	8	28
65 and over	46	22	68
Total	808	402	1211

In Manukau City there are 52 intersection sites which have had five or more injury crashes in the last five years, including 25 sites with seven or more injury crashes in the past five years.

Locations with ten or more injury crashes 2005 to 2009 including at least one crash in 2009

Intersection name	2005 to 2009	2009
Great South / Ronwood	14	3
Smales / Te Irirangi	12	5
Kerrs / Druces	11	2
Great South / Alfriston	10	3
Ti Rakau / Te Irirangi	10	4
Pakuranga / Aviemore	10	2
Great South / Te Irirangi	10	2

Further information about the 1368 injury crashes at intersections on **local** roads in Manukau City 2005 to 2009:

- 12 deaths, 231 serious injuries and 1602 minor injuries
- 22 percent wet roads
- 39 percent night time
- Worst month April, best January
- Worst day Friday, best Monday
- Worst three hour time period, 3pm to 6pm

Further information about the 151 injury crashes at intersections on **State Highways** in Manukau City 2005 to 2009:

- 2 deaths, 23 serious injuries and 187 minor injuries
- 23 percent wet roads
- 42 percent night time
- Worst month September, best February
- Worst day Saturday
- Worst three hour time period, 3pm to 6pm

Night time crashes

Between 2005 and 2009 there were a total of 1095 night time injury crashes on local roads in Manukau City representing 39 percent of all injury crashes in the city.

In these 35 people died, 247 received serious injuries and 1195 minor injuries.

The percentage of fatal and serious crashes occurring during the hours of darkness on local roads in Manukau City is much higher than the New Zealand average for similar cities (49 percent compared to 39 percent).

Night time injury crashes					
Road type	2005	2006	2007	2008	2009
Open road	28	26	21	21	31
Urban road	154	212	206	195	201
Total	182	238	227	216	232

In the city, a high proportion of fatal night time crashes occur on weekdays rather than weekends as shown in the table below.

Night time injury crashes

Worst injury	Weekend (Friday 6pm to Monday 6am)	Weekday (Monday 6am to Friday 6pm)
Fatal	10	21
Injury	533	531
Total	543	552

Between 2005 and 2009 the single year with the highest number of night time fatalities was 2009 with eleven.

There are 68 locations in the city with three or more night time injury crashes. The table below shows those with seven or more.

Locations with seven or more injury night time crashes 2005 to 2009

crasnes 2005 to 2009	
Location (within a radius of 50m)	Total
Great South / Alfriston	10
Pakuranga / Aviemore	10
Ti Rakau / Reeves	7

Age group and gender of at fault drivers in night time injury crashes (note: age ranges are not equal)

Age group	Male	Female	Total
15- 19	163	64	227
20 - 24	187	66	253
25 - 29	100	37	137
30 - 39	147	41	188
40 - 49	85	26	111
50 - 59	44	15	59
60 - 69	23	4	27
70+	9	2	11
Total	758	255	1013

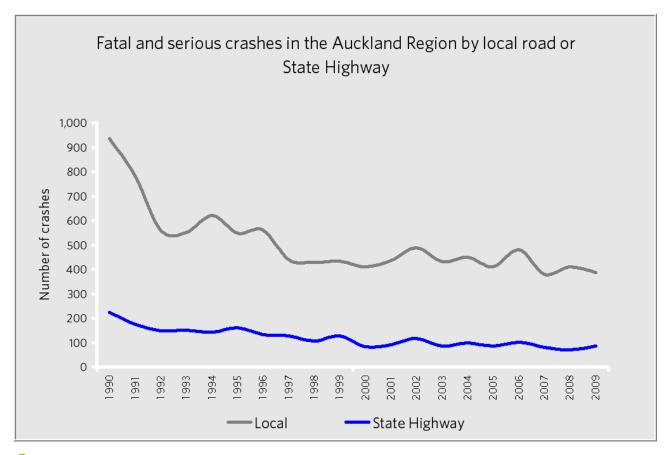
Further information about the 1095 injury night time crashes in Manukau City on **local** roads 2005 to 2009:

- 48 percent at intersections
- 42 percent include alcohol as a factor
- 25 percent failed to give way or stop
- 31 percent wet road
- 26 percent of crashes are speed related
- 761 road side objects hit
- Worst day Saturday, best Tuesday
- Worst three hour time period, 9pm to midnight

Further information about the 210 night time injury crashes in Manukau City on **State Highways** 2005 to 2009:

- 30 percent at intersections
- 28 percent include alcohol as a factor
- 15 percent failed to give way or stop
- 29 percent wet road
- 18 percent of crashes are speed related
- 143 road side objects hit
- Worst day Friday, best Monday
- Worst three hour time period, 9pm to midnight

Looking back—the last two decades ...



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