



New Zealand Government

briefing notes - road safety issues

Waitakere City

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2003–2007 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.

This report is the ninth road safety report for 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 the city.

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 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 the city.

We encourage Waitakere City 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

Waitakere City

Intersections

Vulnerable road users

Crashes at bends

Night time crashes

Nationally

Speed

Alcohol

Failure to give way

Restraints

2007 road trauma

Casualties

Waitakere City

Deaths 5

Serious casualties 45

Minor casualties 390

Crashes

Waitakere City

Fatal crashes 5

Serious injury crashes 43

Minor injury crashes 304

Non-injury crashes 1113

Overview

Police reported 352 injury crashes and 1113 non-injury crashes on roads controlled by Waitakere City in 2007. In addition there were 49 injury crashes and 151 non-injury crashes on State Highways within the city.

The table below shows the number of injuries resulting from these crashes by road type for local roads (open road is defined as an area with a speed limit of 80km/h or more).

Casualties by local road type 2007				
Road type	Fatalities	Serious injuries	Minor injuries	Total
Major urban	2	18	226	246
Minor urban	1	24	126	151
Open road	1	2	26	29
unknown	1	1	12	14
Total	5	45	390	440

Local road serious injury casualty numbers in the city have reduced since a peak between 2002 and 2004. Minor casualty numbers have fluctuated over the decade but been relatively steady over the past five years.

Reported non-injury crash numbers have ranged between a high of 1268 in 2002 to a low of 873 in 1998, but have been round the 1100 value since 2003.

Crash trends in Waitakere City				
Year	Fatalities	Serious injuries	Minor injuries	Total
1998	8	41	331	380
1999	5	61	411	477
2000	4	58	274	336
2001	3	73	299	375
2002	10	91	382	483
2003	4	82	413	499
2004	8	63	440	511
2005	6	50	399	455
2006	8	71	386	465
2007	5	45	390	440

Local road crashes

Crash type or contributory cause 2003 to 2007	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol	24	16
Too fast	23	19
At bends	33	26
At intersections	36	42
Pedestrians	19	12
Cyclists	7	5
Motorcyclists	12	8
Night time	39	35

Further information about the 1800 injury and 5551 non-injury crashes on local roads in Waitakere City 2003 to 2007:

- Worst month June, best January
- Worst day Friday, best Monday
- 29 percent on wet roads
- 33 percent at night
- 45 percent at intersections
- 3208 objects struck including 880 parked cars, 333 trees and 352 poles
- 52 percent of at fault drivers in injury crashes held a full New Zealand drivers licence
- \$86.3m social cost of crashes in 2007

Further information about the 252 injury and 770 non-injury crashes on State Highways in Waitakere City 2003 to 2007:

- Worst month May, best November
- Worst day Friday, best Sunday
- 30 percent on wet roads
- 31 percent at night
- 35 percent at intersections
- 404 objects struck including 33 parked cars, 31 trees and 56 poles
- 61 percent of at fault drivers in injury crashes held a full New Zealand drivers licence
- \$10.7 m social cost of crashes in 2007

Intersections

During the five year period 2003 to 2007 there were a total of 760 injury crashes at intersections within Waitakere City. Of these crashes, 98 percent occurred in urban areas.

In these six people were killed, 115 received serious injuries and 909 received minor injuries.

Crashes at intersections					
Road type	2003	2004	2005	2006	2007
Major urban	98	115	102	92	96
Minor urban	52	41	45	44	55
Open road	4	5	8	1	2
Total	154	161	155	137	153

Locations with the most injury crashes		
Intersection name	Injury crashes 2003 -2007	Total 2007
Swanson Road / Great North Road	17	2
Great North Road / Henderson Valley Road	12	3
Lincoln Road / Triangle Road	12	1
Don Buck Road / Glen Road	12	1
Universal drive / Swanson Road	12	3

Junction type		
Injury and non-injury crashes 2003–2007		
Junction type	Major urban	Minor urban
Roundabout	53	23
Tee	300	152
Cross (X)	84	40
Y	15	7
Multi (more than 4 legs and not a roundabout)	26	4

The most common injury crash type at intersections is when a driver turning right into a side road or driveway hits an oncoming vehicle.

The main causes contributing to injury crashes described in Police reports were:

- Failure to stop and / or give way
- Not checking adequately
- Being inattentive
- Attention being diverted
- Impaired by alcohol
- Following too close

Intersections controlled by traffic signals represented almost a quarter of the injury crashes.

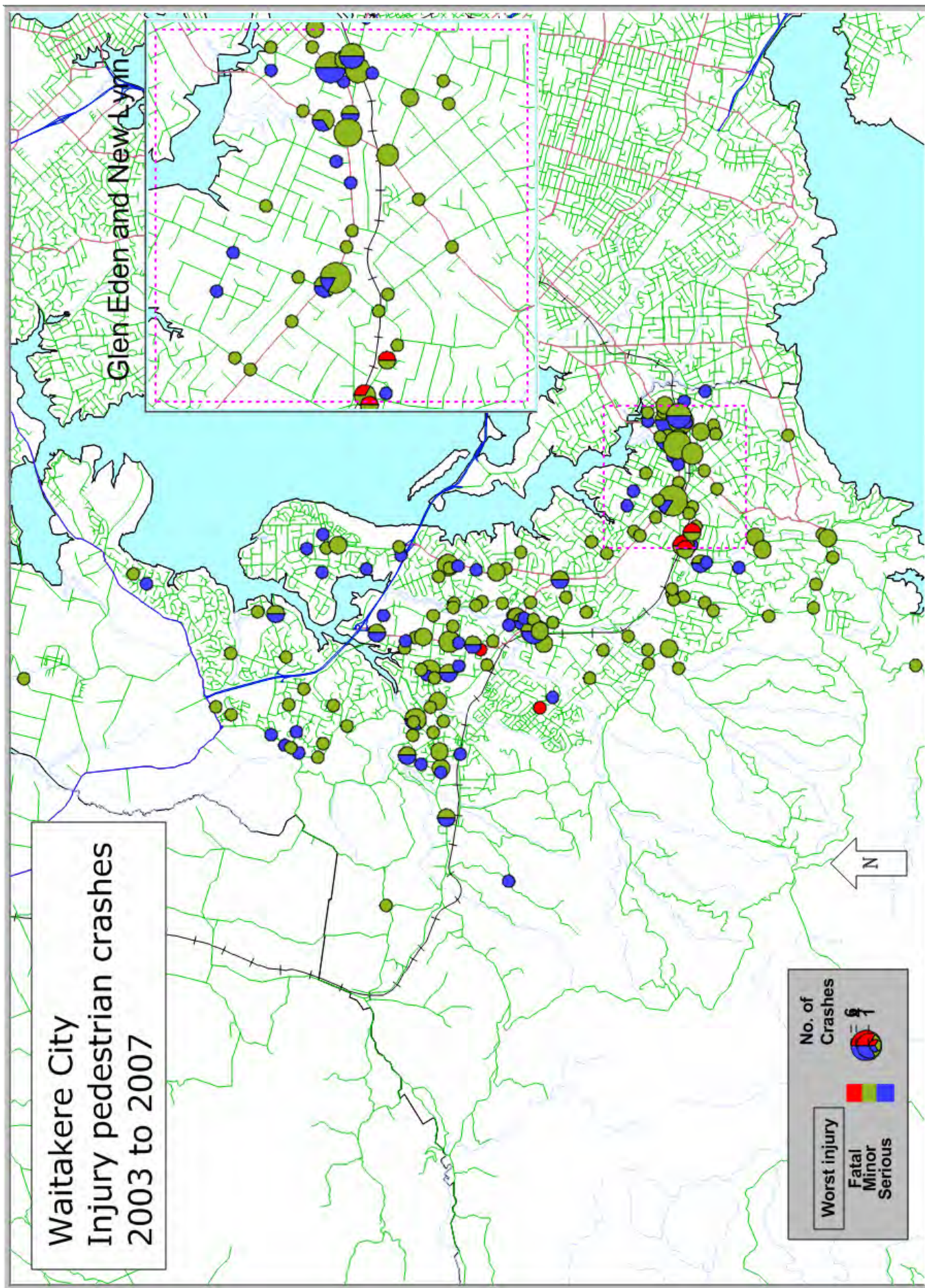
Junction control					
Injury crashes 2003–2007					
Junction control	2003	2004	2005	2006	2007
Traffic signals	35	44	42	28	36
Nil	59	53	52	45	49
Give Way	51	58	47	46	53
Stop	9	6	13	18	15

Further information about the 760 injury crashes at intersections on local roads in Waitakere City 2003 to 2007:

- 13 percent involved alcohol
- 28 percent wet roads
- 35 percent night time
- Worst month June, best January
- Worst day of week Friday, best Monday

Further information about the 73 injury crashes at intersections on State Highways in Waitakere City 2003 to 2007:

- 15 serious injuries and 80 minor injuries
- 15 percent involved alcohol
- 25 percent wet roads
- 34 percent night time
- Worst month September, best December and January (equal)
- Worst day of week Saturday and Tuesday (equal), best Monday



Vulnerable road users (Pedestrians, Cyclists and Motorcyclists)

Vulnerable road users are those who have very little physical protection in the event of a crash with a vehicle and are therefore susceptible to severe injuries.

In February 2005, the Government launched 'Getting there – on foot, by cycle' its strategy to advance walking and cycling in New Zealand. This strategy aims to improve the environment for walking and cycling and at the same time improve safety, as well as increase the choices available for walking and cycling as day-to-day transport options.

Land Transport NZ expects local authorities to take a proactive approach to this subject. This should include the development of a walking and cycling strategy and submitting appropriate projects for funding to progress that strategy.

It is vitally important to recognise that promotion alone of walking and cycling will not be effective at increasing mode share unless these activities can be made safer.

There has also been a rise in motorcycle numbers in the last few years.

This is partially in response to rising fuel costs but also to a growing number of empty nest "baby boomers" purchasing motorcycles that are more powerful than anything they owned in the 1970's.

Combined, pedestrians, cyclists and motorcyclist made up 27 percent of all fatal and serious casualties on local roads in Waitakere City.

Pedestrians

Pedestrian injuries feature highly in the overall road injury picture in Waitakere City, representing 12 percent of all injury crashes and 19 percent of fatal and serious injuries.

Pedestrian injuries 2003 to 2007					
Pedestrian injuries	2003	2004	2005	2006	2007
Fatal	1	1	0	1	2
Serious	15	11	9	16	6
Minor	41	46	29	35	26
Total	57	58	38	52	34

Most (98 percent) of pedestrian crashes occur on roads with a speed limit of 50km/hr or less. Locations of pedestrian crashes are shown on the map on the previous page.

The highest proportion of injuries in pedestrian crashes involve young people up to the age of 19 years old – making them the most at-risk group. This may be because they walk more than other age groups.

Younger age groups may also not be mature enough to make the correct road crossing decisions.

For example young children have difficulty in judging the speed and distance of approaching vehicles.

Children are also easily distracted and unable to focus on multiple events at a time, so when they want to cross a road their attention can be easily distracted by say, a friend shouting out from across the street, a dog coming towards them or a noisy car passing by.

Road designers and motorists alike need to understand that children do not think like 'mini adults' when they are walking and playing near the road. The road environment needs to be made as safe as possible to mitigate against the unpredictable actions that children take.

We encourage Waitakere City to continue implementing their programme of measures to address safety outside schools.

Further information about the 229 injury pedestrian crashes on local roads in Waitakere City 2003 to 2007:

- 36 percent occurred at intersections
- Worst month, June, best January
- Worst day of week, Thursday, best Sunday
- Worst three hour period 3pm till 6pm
- Worst location Gt North / West Coast 6 injury crashes in last five years (one each year)
- Pedestrians at fault (or part fault) in 64 percent of crashes

Further information about the five injury pedestrian crashes on State Highways in Waitakere City 2003 to 2007:

- 1 fatality, 2 serious injuries and 4 minor injuries
- Two crashes on the north-western motorway and the other three on State Highway 18
- Two crashes at night

Cyclists

Five percent of injury crashes in Waitakere City involve a cyclist rising to seven percent of fatal and serious crashes.

Cyclist injuries					
	2003	2004	2005	2006	2007
Fatal	0	0	0	0	0
Serious	5	4	3	5	5
Minor	14	14	17	13	12
Total	19	18	20	18	17

Just over half (56 percent) of injury cycling crashes occurred on major urban roads. Over half (54 percent) of these occurring at intersections.

In the last two years more cycles than cars were imported into New Zealand. In recent years the increase in cycle numbers on many roads in New Zealand has become quite noticeable.

Ages of injured cyclists (when known)				
	0 to 19 years	20 to 39 years	40 to 59 years	60+ years
Number of cyclists	38	15	21	2

Although there are many injured cyclists in the traditional younger group exactly half are over 20 years old.

Further information about the 93 injury cyclist vs vehicle crashes on local roads in Waitakere City 2003 to 2007:

- Worst month March, best September
- Worst day of the week Tuesday, best Sunday
- 99 percent urban
- 20 percent at night
- Number of crashes involving riding on the footpath, 17

Further information about the 10 injury cyclist crashes on State Highways in Waitakere City 2003 to 2007:

- Four at motorway interchanges, one on State Highway 16 and five on State Highway 18

Motorcyclists

Motorcyclists represent eight percent of all crashes and 12 percent of fatal and serious crashes in Waitakere City.

Nationally motorcycling fatalities dropped from a high of 20 percent of all fatalities in 1988 to just six percent in 2003. Since then there has been a significant increase in motorcycle registrations and this has reversed the downward trend. In 2007 motorcyclists accounted for 9.6 percent of road fatalities in New Zealand, by mid 2008 this had risen to over 11 percent.

Motorcyclist injuries					
	2003	2004	2005	2006	2007
Fatal	3	0	1	0	0
Serious	10	4	5	7	7
Minor	15	21	15	25	33
Total	28	25	21	32	40

Injuries to motorcyclists in Waitakere City increased sharply in 2007, this is consistent with trends for local roads across all New Zealand.

Nationally injury motorcycle crashes on local roads rose from 699 in 2006 to 908 last year.

Further information about the 135 injury motorcycle crashes on local roads in Waitakere City 2003 to 2007:

- The most common type of crash was when a vehicle turning right into a side road or driveway hits an oncoming motorcyclist
- Worst month August, best November
- Worst day of week Sunday, best day Monday
- Worst three hour period 3pm to 6pm
- 44 percent at intersections

Further information about the 23 injury motorcyclist crashes on State Highways in Waitakere City 2003 to 2007:

- Worst month March
- Worst day of week Thursday best Saturday and Sunday (equal)
- 39 percent at intersections
- 30 percent in the wet
- 30 percent at night
- 13 percent involved road factors

Crashes at bends

In the last five years 26 percent of all local road injury crashes in Waitakere City occurred at bends, more importantly they made up 36 percent of all fatal and serious crashes.

Injury crashes at bends 2003 to 2007				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2003	2	21	70	93
2004	3	15	78	96
2005	4	16	73	93
2006	2	19	73	94
2007	3	13	81	97
Total	14	84	375	473

Most crashes at bends involved a driver losing control of their vehicle and running off the road, especially on right hand bends.

After drivers lose control their vehicles often crash into roadside objects such as fence, trees, parked cars or poles. Hitting these objects can result in a relatively minor off-road event turning into something far more serious.

The most common roadside objects struck in bend crashes in Waitakere City were fences (66), trees (80) and poles (86) from a total of 635 objects struck.

Main characteristics of injury crashes at bends	
Crash characteristic	Percentage of crashes
Single vehicle	68
Alcohol	28
Excessive speed for the conditions	49
Road factors	16
Poor handling	45
Wet road	41
Night time	48
Rural	21

Further information about the 473 injury crashes on bends (2003 to 2007) on local roads in Waitakere City:

- 16 deaths, 106 serious injuries and 553 minor injuries
- 80 percent of at fault drivers were male
- Most common crash type "lost control turning right"
- Most common at fault driver age group 15 to 19 years (29 percent of all at fault drivers)
- 28 percent of crashes involved alcohol
- 49 percent of crashes involved travelling too fast for the conditions
- Worst month January, best September
- Worst day of week Sunday, best Tuesday
- Worst three hour period 3pm to 6pm
- 45 percent of at fault drivers held a full New Zealand drivers licence

Further information about the 34 injury crashes on bends (2003 to 2007) on State Highways in Waitakere City.:

- 1 death, 6 serious injuries and 40 minor injuries
- 68 percent of at fault drivers were male
- Most common crash type "lost control turning left"
- Most common at fault driver age group 20 to 24
- 32 percent of crashes involved alcohol
- 35 percent of crashes involved travelling too fast for the conditions
- Worst month March and November (equal), best March
- Worst day of week Saturday, best Monday
- Worst three hour period midnight to 3am
- 42 percent of at fault drivers held a full New Zealand drivers licence
- 44 percent rural
- 44 percent dark
- 35 percent wet

Night time crashes

The proportion of injury crashes occurring during the hours of darkness on local roads in Waitakere City is slightly higher than that of similar local bodies.

Between 2003 and 2007 there were a total of 629 night time injury crashes on local roads resulting in 16 fatalities, 125 serious injuries and 725 minor injuries.

Over the last five years crashes in the dark have risen then fallen slightly in 2007.

Night time crashes by road type					
Road type	2003	2004	2005	2006	2007
Major urban	49	70	73	70	62
Minor urban	44	60	48	52	42
Open road	14	7	8	10	8

Almost half of the night time crashes (49 percent) occur during the weekend period when traffic volumes are generally less. ("Weekend" is defined as Friday 6pm to Monday 6am)

Night time injury crashes by weekday or weekend 2003 to 2007		
Worst injury	Weekend	Weekday
Fatal	8	5
Injury	301	315
Total	309	320

Younger male at fault drivers less than 30 years old are highly represented in night time crashes on local roads in Waitakere City accounting for forty-eight percent of all at fault drivers.

Two factors can contribute to this:

- firstly younger people generally drive more at night.
- secondly despite the fact that they see better at night than older drivers and have better glare recovery, they underestimate how difficult it can be to see traffic hazards at night.

Age and gender of at fault drivers		
Ages of drivers at fault in night time injury crashes	Male	Female
15- 19	111	33
20 - 24	99	22
25 - 29	57	20
30 - 39	73	21
40 - 49	47	26
50 - 59	20	8
60 - 69	9	5
70+	4	2
Total	420	137

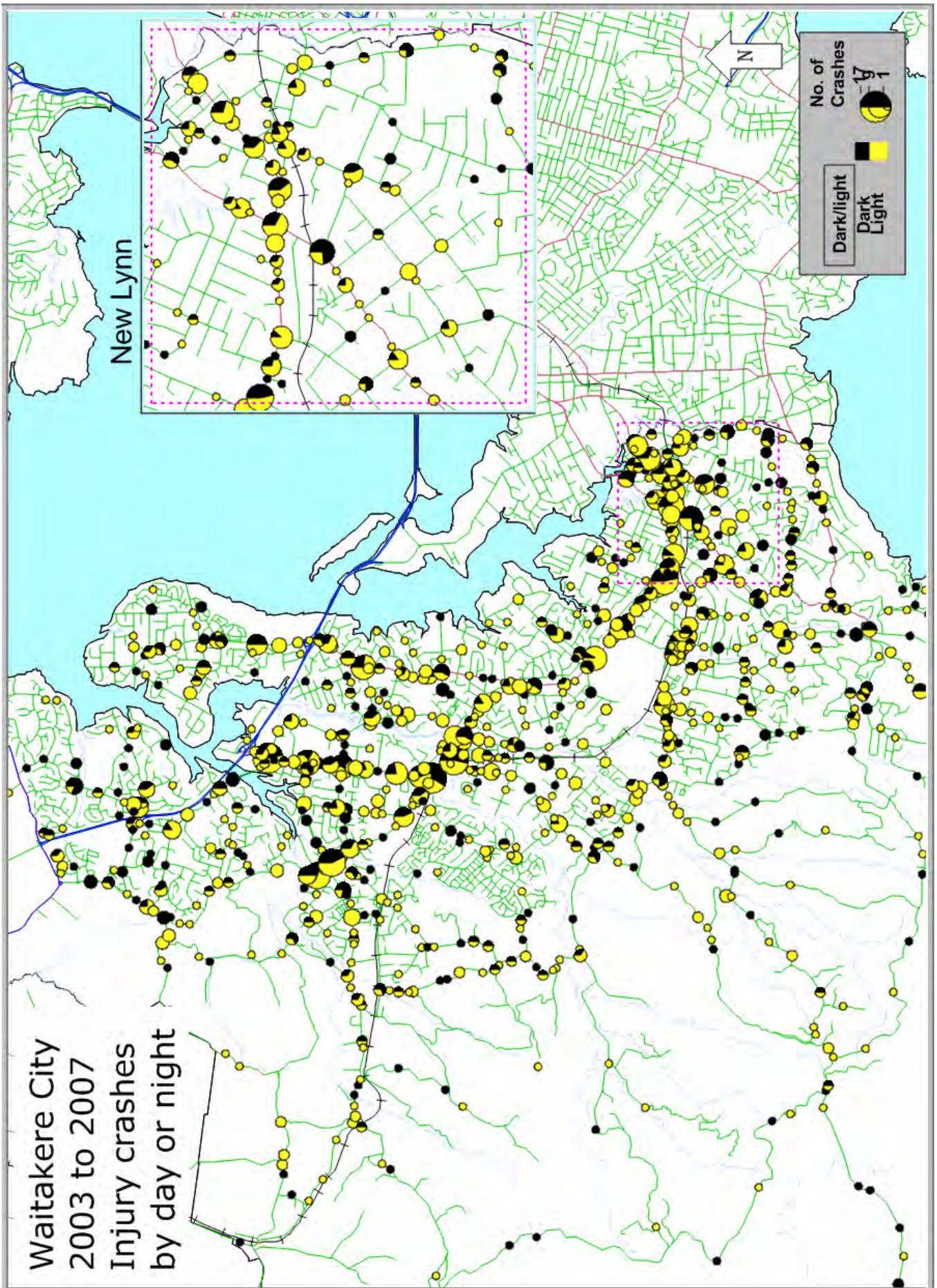
A map showing all injury crashes in Waitakere between 2003 and 2007 by day or night is shown on the following page.

Further information about the 629 injury night time crashes in Waitakere City on local roads 2003 to 2007:

- Most common crash type is 'loss of control turning right'
- 34 percent crashes include alcohol
- 30 percent include speed too fast for the conditions
- 35 percent wet road
- Worst month June, best February
- Worst day of week Saturday, best Monday and Tuesday (equal)
- 45 percent of at fault drivers held a full New Zealand drivers licence

Further information about the 94 night time injury crashes in Waitakere City on State Highways 2003 to 2007:

- 2 deaths, 14 serious injuries and 102 minor injuries
- Most common crash type is 'running into the rear of a queue of traffic'
- 24 percent crashes include alcohol
- 38 percent wet road
- 26 percent injury crashes include speed too fast for the conditions
- Worst month June, best December
- Worst day of week Friday, best Monday and Wednesday (equal)
- 57 percent of at fault drivers held a full New Zealand drivers licence



National issues

This section contains some brief information on the key national road safety issues as measured on Waitakere City local roads. They may have been covered elsewhere in this document or not be a specific issue.

Speed

'Too fast' was recorded as a factor in 19 percent of injury crashes in the city in the last five years resulting in 15 deaths and 494 other injuries. Speed as a factor in crashes is not generally reducing in the city.

Sixty-nine percent of speed-related crashes were 'loss of control or head on'. Alcohol and poor handling were the other driver factors often associated with speed related crashes.

At fault male drivers aged less than 24 were the most highly represented in speed-related crashes.

Alcohol

Alcohol was involved in 16 percent of injury crashes in the city in the last five years resulting in 14 deaths and 409 other injuries. The number of injury crashes involving alcohol fell sharply in 2007 after increasing for the past four years.

Most alcohol related crashes occur during the hours of darkness (59 percent between 8pm and 3am)

Speed, poor handling and poor observation were the other factors often associated with alcohol.

Failure to give way

Failure to give way or stop was reported in 29 percent of all reported injury crashes for the last five years resulting in one death and 712 other injuries.

Forty-four percent were at tee junctions, 27 percent at driveways and 16 percent at cross junctions.

Restraints

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a Regional Council, Police District and local body level. The front seat belt wearing rate in Waitakere City was 98 percent in 2007.

The results are obtainable from the Ministry of Transport website :

<http://www.transport.govt.nz/safety-belt-statistics-front-seat-200-1/>

Contacts

Land Transport New Zealand

Partnership Manager (Northern)
Peter Kippenberger

Manager Performance Information (Northern)
Chris Hewitt

Manager Programmes (ARTA)
Geoffrey Mansell

Private Bag 106 602, Auckland
Phone 09 969 9800

www.landtransport.govt.nz

Local Authority

Road Safety Co-ordinator
Kitch Cuthbert

Transport Planning and Design Manager
Hussam Abdul-Rassol

Waitakere City Council
Private Bag 93 109
Henderson

Phone 09 836 8000

New Zealand Police

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

Phone DDI: (09) 488-9756