



briefing notes - road safety issues

Waitomo District

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 Waitomo District.

All the material unless otherwise stated in this report applies to both local roads and state highways. Local roads are all non state highway roads in Waitomo District.

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 Waitomo 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 Waitomo District and we encourage safety engaged staff at Waitomo District Council 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

Waitomo District

Speed
Crashes at bends
Wet road crashes

2009 road trauma

Casualties

Waitomo District

Deaths	5
Serious casualties	16
Minor casualties	71

National priorities from Road Safety 2020— Safer Journeys

Speed
Alcohol / drugs
Young drivers
Roads and roadsides
Motorcyclists

Crashes

Waitomo District

Fatal crashes	2
Serious injury crashes	11
Minor injury crashes	42
Non-injury crashes	71

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.

Under the 2020 strategy a number of priority areas have been chosen as the areas of focus.

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 at: <http://www.transport.govt.nz/saferjourneys/Documents/SaferJourneyStrategy.pdf>

To reflect the new strategy, changes to the wording and the way data is presented in these briefing notes to reflect and emphasise 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.

However, as these reports are based on crash data, particularly fatal and serious crashes, the actual "issues" identified by our analysis remain as before, fact based. It would be irresponsible of us to ignore an area of high social cost in a particular local body or region just because it wasn't a national priority.

We have 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 Hamilton NZTA Office.

Table 3 – Safer Journeys' areas of concern and the Safe System

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

For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

Table source: Ministry of Transport 2020 Safer Journeys

Status of the areas of “high concern” from Safer Journeys 2020 for the Waikato Region

(table below refers only to fatal and serious crashes on both local roads and state highways for the years 2005–2009 except for the “intersection” columns which also include minor crashes for reasons of sample size)

Safer Journeys area of concern	Reducing alcohol and drug impaired driving	Increase the safety of young drivers	Safer roads and roadsides			Safe speeds	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 where speed was a factor
Thames Coromandel District	31	27	52	5	0	30	29
Hauraki District	25	24	51	3	2	29	18
Matamata Piako District	25	31	46	2	6	28	17
Waikato District	25	25	53	5	15	25	18
Hamilton City	23	35	30	97	8	19	17
Waipa District	17	40	47	5	8	26	15
Otorohanga District	29	25	50	2	0	15	23
Waitomo District	21	29	65	1	0	32	14
South Waikato District	21	27	42	1	3	28	15
Taupo District	25	31	47	15	6	26	21
Waikato Region	24	30	46	136	47	26	18
New Zealand	23	34	45	1938	320	23	18

Waitomo District overview

In 2009 on local roads in Waitomo District there were 12 injury crashes and 18 non-injury crashes. In addition on state highways in Waitomo District there were 43 injury crashes and 53 non-injury crashes. The table below shows the number of injuries resulting from the 61 injury crashes by rural or urban areas for local roads and state highways (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	14	56	75
Urban	0	2	15	17
Total	5	16	71	92

Casualties by state highway / local road 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Local road	0	1	12	13
State highway	5	15	59	79
Total	5	16	71	92

Crash trends in Waitomo District				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
2000	1	11	37	49
2001	4	8	46	58
2002	2	13	39	54
2003	1	17	49	67
2004	3	17	34	54
2005	5	16	50	71
2006	5	16	39	60
2007	3	11	52	66
2008	2	6	40	48
2009	2	11	42	55

Local road crash characteristics		
Crash type or contributory cause 2005 to 2009	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol	27	23
Speed	33	32
Bends	93	74
Wet roads	13	24

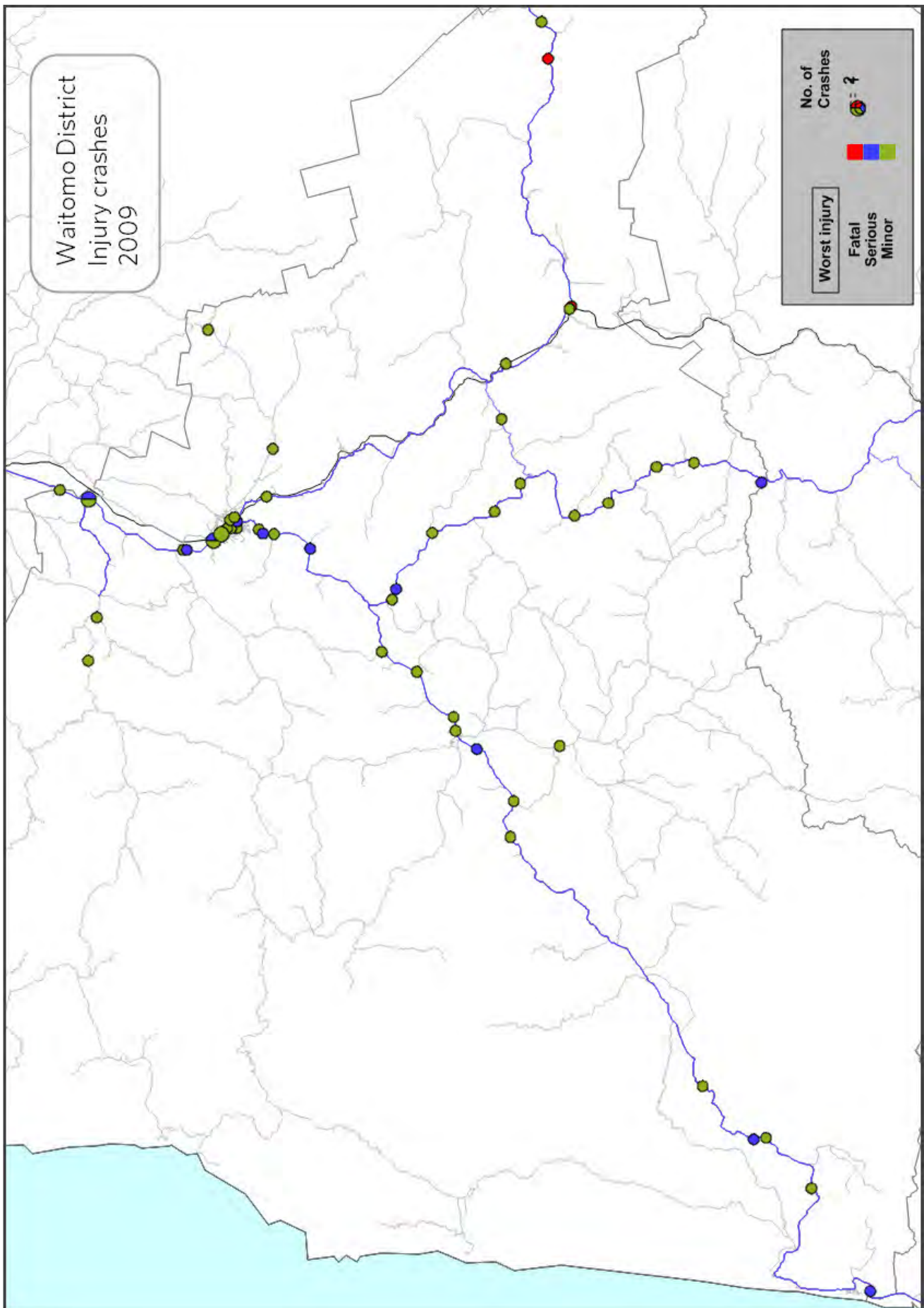
Further information about the 62 injury and 117 non-injury crashes on **local roads** in Waitomo District 2005 to 2009:

- 3 deaths, 14 serious and 66 minor injuries
- Worst month September, best November
- Worst day Wednesday, best Monday
- 24 percent on wet roads
- 43 percent at night
- 27 percent at intersections
- 116 roadside objects struck *
- Most represented five year age block in 'at fault' drivers in injury crashes: 15 to 19 years (22 percent of at fault drivers)
- Social cost of crashes in 2009 \$21.7m

Further information about the 238 injury and 295 non-injury crashes on **state highways** in Waitomo District 2005 to 2009:

- 20 deaths, 67 serious and 289 minor injuries
- Worst month January, best November
- Worst day Friday, best Thursday
- 37 percent on wet roads
- 36 percent at night
- 14 percent at intersections
- 385 roadside objects struck *
- Most represented five year age block in 'at fault' drivers in injury crashes: 20 to 24 years (19 percent of at fault drivers)
- Social cost of crashes in 2009 \$21.6m

* 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.



Speed

Nationally, speed is one of the major contributing factors to road crashes. Appropriate speeds are an important road safety goal for road safety strategy 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 28 percent of injury crashes in Waitomo District involved travelling too fast for the conditions.

Speed related crashes					
Speed related crashes	2005	2006	2007	2008	2009
Rural	18	16	20	12	12
Urban	1	2	2	2	0
Total	19	18	22	14	12

The other main causes contributing to speed related crashes were:

- Handling errors
- Alcohol
- General errors of judgement

Speed related crashes in CAS are not necessarily 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 authorities and highway managers can do their part by ensuring speed limits, including temporary speed limits at road work sites are appropriate, comply with the Speed Limits Rule and are adequately signposted. When inappropriate speed limits are used there is a poor level of speed compliance by motorists and require a higher level of police enforcement.

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

* note age ranges are not equal

Drivers age	Male	Female	Total
15-19 years *	10	7	17
20 - 24	15	6	21
25 - 29	6	2	8
30 - 39	11	4	15
40 - 49	3	3	6
50 - 59	8	2	10
60 - 69	1	2	3
70+	2	1	3
Total	56	27	83

Further information about the 20 speed related injury crashes on **local roads** in Waitomo District 2005 to 2009:

- 6 serious injuries and 19 minor injuries
- Most common crash type "Lost control on a bend" (19 crashes)
- 30 percent wet road
- 65 percent night time
- 30 percent include alcohol as a factor
- Worst days Friday & Saturday best Sunday & Monday
- Worst three hour time period 6pm to 9pm

Further information about the 65 speed related injury crashes on **state highways** in Waitomo District 2005 to 2009:

- 5 deaths, 21 serious injuries and 73 minor injuries
- Most common crash type "Lost control on a bend" (56 crashes)
- 60 percent wet road
- 40 percent night time
- 14 percent include alcohol as a factor
- Worst day Friday, best Thursday
- Worst three hour time period 3pm to 6pm

Crashes at bends

Between 2005 and 2009 seventy percent of fatal and serious crashes and 66 percent of all injury crashes in Waitomo District were loss of control or head on bends.

Crashes at bends 2005 to 2009				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2005	4	14	28	46
2006	3	13	33	49
2007	1	7	33	41
2008	1	6	27	34
2009	1	4	23	28
Total	10	44	144	198

46 percent of 'at fault' drivers involved in injury crashes at bends were aged under 30 and 16 percent were aged under 20.

Drivers 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 district. (see bullet points)

Ages of at fault drivers in bend related injury crashes 2005 to 2009			
Ages	Female	Male	Total
15 to 19	13	16	29
20 to 24	14	23	37
25 to 29	7	16	23
30 to 34	2	11	13
35 to 39	8	18	26
40 to 44	1	5	6
45 to 49	6	12	18
50 to 54	5	7	12
55 to 59	3	12	15
60 to 64	3	4	7
65 to 69	2	0	2
70 to 74	0	1	1
75+	2	2	4
Total	66	127	193

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. Appropriate clear zones and roadside management will continue to help improve road safety.

The most common roadside hazards struck in injury loss of control or head on crashes on bends in Waitomo District were cliffs and banks (61), fences (53), over bank (37) and posts and ditches (25) from a total of 240 objects struck.

Further information about the 46 injury loss of control or head on crashes on bends on **local roads** in Waitomo District 2005 to 2009:

- 3 deaths, 13 serious and 44 minor injuries
- 75 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (21 crashes)
- 26 percent of crashes involved alcohol
- 24 percent in the wet
- 41 percent of crashes involved speed too fast for the conditions
- Worst month February, best October
- Worst day Saturday, best Monday & Thursday
- Worst three hour time period 3pm to 6pm
- Number of objects struck 52

Further information about the 152 injury loss of control or head on crashes on bends on **state highways** in Waitomo District 2005 to 2009:

- 10 deaths, 41 serious and 175 minor injuries
- 67 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (69 crashes)
- 13 percent of crashes involved alcohol
- 40 percent in the wet
- 37 percent of crashes involved speed too fast for the conditions
- Worst month January, best November
- Worst day Sunday, best Wednesday & Thursday
- Worst three hour time period midday to 3pm
- Number of objects struck 188

Crashes in the wet

The proportion of fatal and serious injury crashes occurring on wet roads in Waitomo District is higher than the New Zealand average for similar local bodies.

Between 2005 and 2009 there were a total of 94 wet road injury crashes on roads in Waitomo District. These resulted in 8 fatalities, 24 serious injuries and 115 minor injuries.

It is worth noting that NZTA does not assume in CAS that a wet road is a slippery one.

It may be that Waitomo District is simply on average wetter than its peers. Never-the-less higher than expected numbers of crashes in the wet can be an indicator of issues with road drainage and surface texture; both of which offer lower than anticipated skid resistance to drivers.

Other complicating factors can be loss of visibility of road markings through poor drainage, additional glare from street lighting and oncoming vehicles, as well as aquaplaning.

Wet road injury crashes					
Road type	2005	2006	2007	2008	2009
Local roads	5	0	2	2	6
State Highways	20	18	14	14	3
Total	25	18	16	16	19

Locations with 3 or more injury crashes between 2005 to 2009	
Intersection name	2005 to 2009
SH 3, 2600m south of Paekaka Road	4
SH 4 / Pukerimu Road intersection	4
SH 3, 580m north of Paekaka Road	4
SH 4, 900m south of Waitataura Road	3
SH 3, 500m south of Maraetaura Road	3

Wet road injury crashes by month and road type 2005 to 2009

Month	Local roads	State highways
January	0	9
February	1	5
March	0	7
April	3	4
May	1	8
June	3	7
July	2	8
August	1	7
September	3	6
October	0	6
November	0	2
December	1	10
TOTAL	15	79

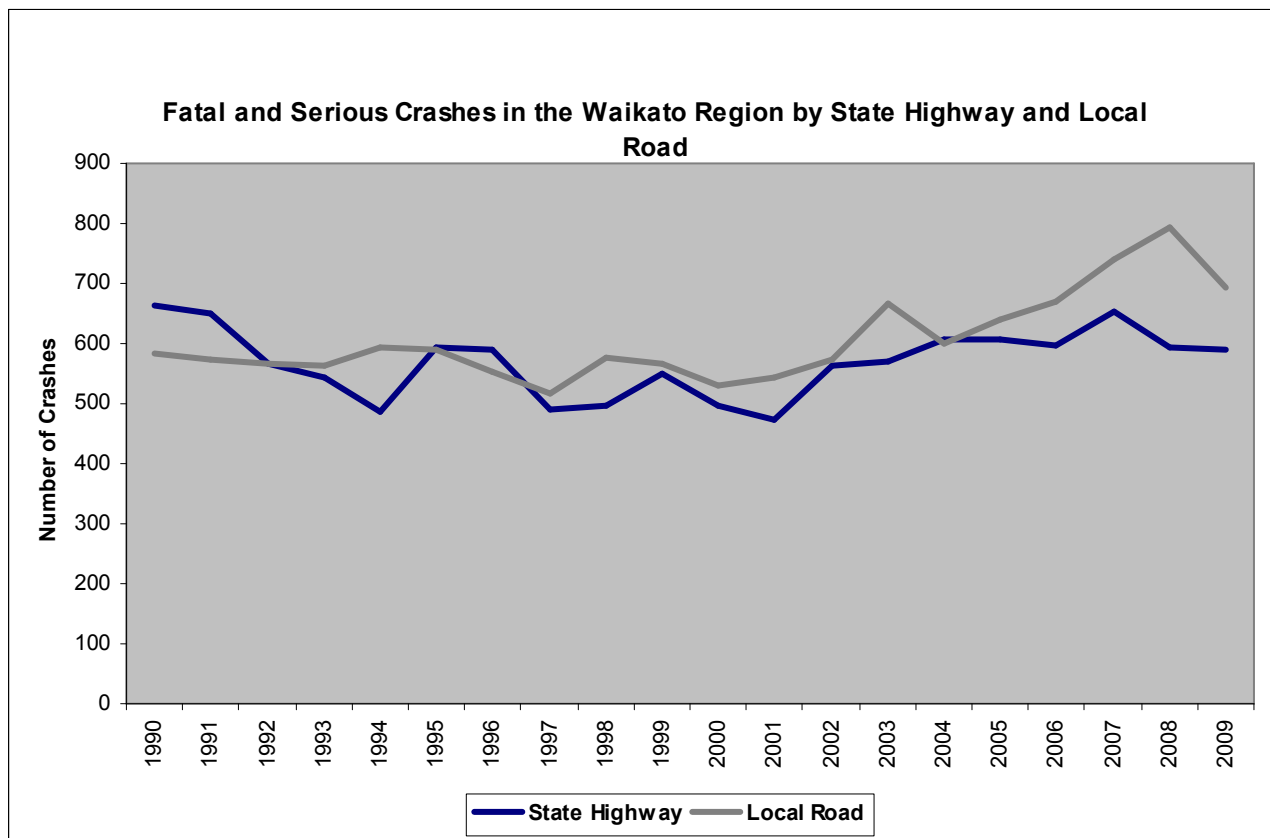
Further information about the 15 injury wet road crashes in Waitomo District on **local roads** 2005 to 2009:

- Most common crash type was "loss of control at a bend" (11 crashes)
- 73 percent at night
- 33 percent injury crashes include alcohol
- 40 percent injury crashes speed related
- Worst months April, June & September, best January, March & October (these do not necessarily match with months with the most or least rainfall)
- 33 percent urban

Further information about the 79 injury wet road injury crashes in Waitomo District on **state highways** 2005 to 2009:

- Most common crash type was "loss of control at a bend" (61 crashes)
- 37 percent at night
- 11 percent injury crashes include alcohol
- 49 percent injury crashes speed related
- Worst month December November, best November (these do not necessarily match with months with the most or least rainfall)
- 6 percent urban

Looking back—the last two decades ...



Contacts

New Zealand Transport Agency

Regional Director (Waikato / Bay of Plenty)
Harry Wilson

Programme and Funding Manager
Andrew McKillop

Area Engineer State Highways
Gerhard van Blerk

Regional Communications Advisor
Julie Hannam

Private Bag 3081, Hamilton
Phone 07 958 7840

www.nzta.govt.nz

Local Authority

Road Safety Co-ordinator
Christine Chaplow

Transportation Manager Waitomo District Council
Justin Dempsey

New Zealand Police

Inspector Leo Tooman
Road Policing Manager
New Zealand Police
Waikato
PO Box 3078
Hamilton

Phone 07 858 6200
www.police.govt.nz