



# briefing notes - road safety issues

## Rotorua 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 Rotorua 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 Rotorua 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 Rotorua 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 Rotorua District and we encourage safety engaged staff at Rotorua District Council to use their free access to the Ministry of Transport's Crash Analysis System (CAS) to delve deeper into the highlighted. All data and maps in this note are from CAS.

### Major road safety issues

#### Rotorua District

Alcohol  
Speed  
Crashes at bends

### 2009 road trauma

#### Casualties

#### Rotorua District

Deaths	5
Serious casualties	39
Minor casualties	160

### National priorities from Road Safety 2020— Safer Journeys

Speed  
Alcohol / drugs  
Young drivers  
Roads and roadsides  
Motorcyclists

#### Crashes

#### Rotorua District

Fatal crashes	5
Serious injury crashes	32
Minor injury crashes	111
Non-injury crashes	458

## 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
<b>Areas of high concern</b>				
Reducing alcohol/drug impaired driving			✓	✓
Increasing the safety of young drivers	✓	✓	✓	✓
Safe roads and roadsides	✓			
Safe speeds	✓	✓	✓	
Increasing the safety of motorcycling	✓	✓	✓	✓
<b>Areas of medium concern</b>				
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		✓	✓	✓
<b>Areas of continued and emerging focus</b>				
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 Bay of Plenty Region 2005 to 2009

(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	Percentage of fatal and serious crashes involving a motorcyclist
Western BOP District	32	31	48	1*	9	25	15*
Tauranga City	25	28	29	36	1*	20	26
Rotorua District	27	31	42	24	4	33	14
Whakatane District	32	36	49	2	3	32	17*
Opotiki District	37*	37*	68	0**	0***	41*	19**
Kawerau District	56***	56***	89***	0***	0****	33***	22***
BOP Region	29	32	43	63	16	28	18
New Zealand	23	34	45	1938	320	23	18

Note:

\* Sample size of 30 crashes or less

\*\* Sample size of 20 crashes or less

\*\*\* Sample size of 10 crashes or less

\*\*\*\* No crashes in sample

## Rotorua District overview

In 2009 on local roads in Rotorua District there were 71 injury crashes and 277 non-injury crashes. In addition on state highways in Rotorua District there were 77 injury crashes and 181 non-injury crashes. The tables below show the number of injuries resulting from the 148 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	4	14	77	95
Urban	1	25	83	109
Total	5	39	160	204

Casualties by state highway / local road 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Local road	3	21	61	85
State highway	2	18	99	119
Total	5	39	160	204

Crash trends in Rotorua District				
Year	Fatal crashes	Serious crashes	Minor crashes	Total crashes
2000	5	30	60	95
2001	8	30	87	125
2002	8	33	117	158
2003	5	28	159	192
2004	7	33	157	197
2005	4	36	128	168
2006	9	46	125	180
2007	5	52	129	186
2008	6	34	141	181
2009	5	32	111	148

Crash characteristics 2005 to 2009 (all roads)		
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	27	19
Speed	33	28
Bend	43	37
Poor observation	29	33
Night	33	36

Further information about the 419 injury and 1686 non-injury crashes on **local roads** in Rotorua District 2005 to 2009:

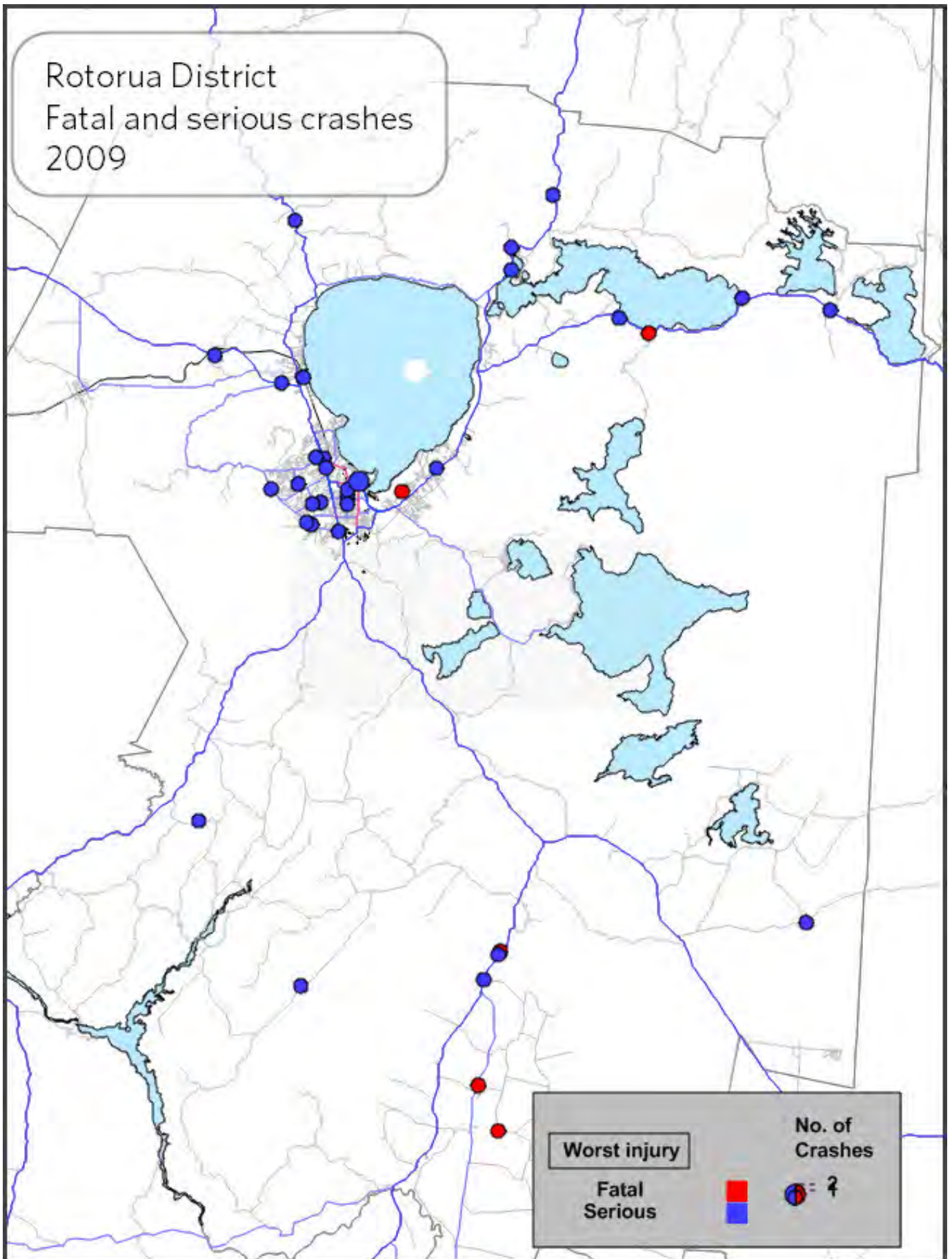
- 9 deaths, 113 serious injuries and 409 minor injuries
- Worst month June, best January, August and October (equal)
- Worst day Friday, best Sunday
- 27 percent on wet roads
- 31 percent at night
- 44 percent at intersections
- 1068 roadside objects struck \*
- Most represented five year age block in 'at fault' drivers in injury crashes: 15 to 19 years (26 percent of at fault drivers)
- Social cost of crashes in 2009 \$41m

Further information about the 444 injury and 1094 non-injury crashes on **state highways** in Rotorua District 2005 to 2009:

- 27 deaths, 137 serious injuries and 535 minor injuries
- Worst month May and July (equal), best August, September and October (equal)
- Worst day Saturday, best Sunday
- 29 percent on wet roads
- 32 percent at night
- 43 percent at intersections
- 738 roadside objects struck \*
- Most represented five year age block in 'at fault' drivers in injury crashes: 15 to 19 years (17 percent of at fault drivers)
- Social cost of crashes in 2009 \$34m

\* 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 16 times more likely to be involved in a fatal crash than a sober driver.

In Rotorua District, alcohol was a factor in 27 percent of fatal and serious crashes and 19 percent of injury crashes.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2005	13	15	28
2006	14	31	45
2007	14	20	34
2008	17	18	35
2009	9	16	25
Total	67	100	167

(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 band 2005 to 2009	Percentage drivers in this age band 1980 to 1984
15-19	27	26
20-24	24	23
25-29	12	12
30-34	11	9
35-39	7	6
40-44	3	6
45-49	6	4
50-54	4	3
55-59	1	2
60-64	2	2
65-69	1	2
70-74	1	2
75+	1	2

Total crashes involving alcohol for 2009 are the lowest for the past five years. Contributing to this result, has been a significant drop in open (rural) road crashes to single figures for 2009 . Urban crashes have remained steady throughout.

There has been no significant shift in age spread for the past five years compared to 25 years ago, prior to lowering the drinking age. This indicates that younger drivers (aged less than 25 years) still account for 51% (2005-2009) or 49% (1980-1984) of at fault drivers. More enforcement and younger driver education is highly encouraged.

Further information about the 81 alcohol related injury crashes on **local roads** in Rotorua District 2005 to 2009:

- 5 deaths, 34 serious and 87 minor injuries
- 81 percent of at fault drivers were male
- Most common crash type " lost control turning right" (28 crashes)
- 38 percent at intersections
- 74 percent night time
- Worst three hour time period 9pm to midnight
- Worst month January, best April and August (equal)
- Worst day Sunday, best Monday
- Number of roadside objects struck, 87
- Most common object struck, fence and tree (equal)

Further information about the 86 alcohol related injury crashes on **state highways** in Rotorua District 2005 to 2009:

- 9 deaths, 34 serious injuries and 101 minor injuries
- 72 percent of at fault drivers were male
- Most common crash type "lost control turning right" (19 crashes)
- 26 percent at intersections
- 72 percent night time
- Worst three hour time period, 9pm to midnight
- Worst month July, best December
- Worst day Saturday, best Monday
- Number of roadside objects struck, 81
- Most common object struck , cliff or bank

## 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 Rotorua District involved travelling too fast for the conditions.

Speed related injury crashes					
Speed related crashes	2005	2006	2007	2008	2009
Rural	27	26	29	31	29
Urban	15	33	18	18	19
Total	42	59	47	49	48

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

\* note age ranges are not equal

Drivers age group	Male	Female	Total
15-19 years *	60	19	79
20 - 24	37	19	56
25 - 29	23	8	31
30 - 39	21	14	35
40 - 49	13	1	14
50 - 59	99	5	14
60 - 69	5	3	8
70+	1	1	2
<b>Total</b>	169	70	239

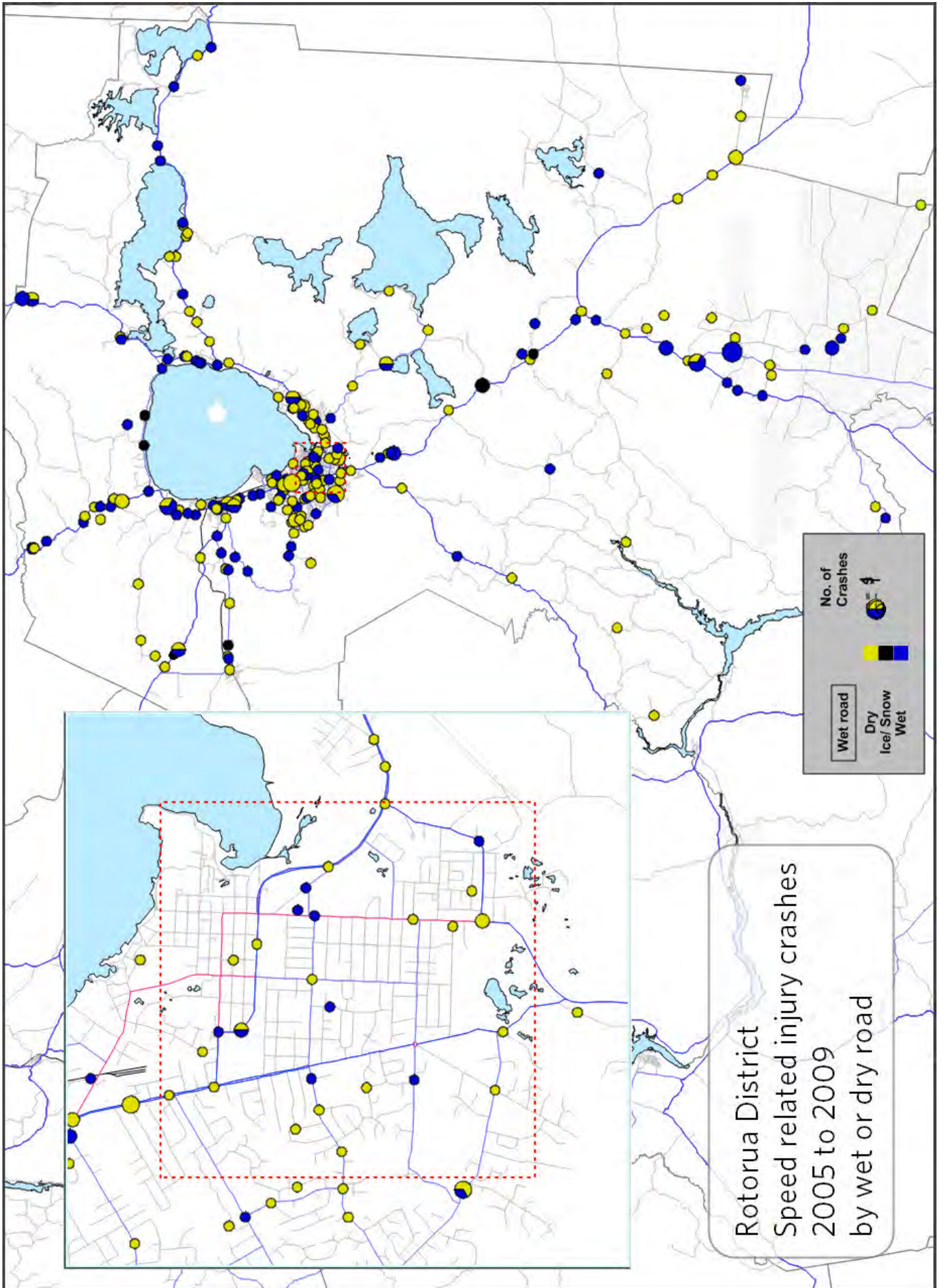
Further information about the 128 speed related injury crashes on **local roads** in Rotorua District 2005 to 2009:

- 7 deaths, 41 serious injuries and 141 minor injuries
- Most common crash type "lost control turning right" (50 crashes)
- 38 percent wet road
- 51 percent night time
- 34 percent include alcohol as a factor
- Worst day Sunday, best Monday
- Worst three hour time period, 6pm to 9pm

Further information about the 117 speed related injury crashes on **state highways** in Rotorua District 2005 to 2009:

- 10 deaths, 41 serious injuries and 152 minor injuries
- Most common crash type "lost control turning right" (33 crashes)
- 47 percent wet road
- 55 percent night time
- 31 percent include alcohol as a factor
- Worst day Saturday, best Friday
- Worst three hour time period, 6pm to 9pm







## Crashes at bends

Between 2005 and 2009, 43 percent of fatal and serious crashes and 37 percent of all injury crashes in Rotorua District were loss of control or head on at bends.

Crashes at bends 2005 to 2009				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2005	3	15	43	61
2006	4	23	43	70
2007	2	16	43	61
2008	5	10	56	71
2009	5	16	33	54
Total	19	80	218	317

59 percent of 'at fault' drivers involved in crashes at bends were aged under 30 and 27 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

Ages of at fault drivers in bend related injury crashes 2005 to 2009			
Ages	Female	Male	Total
15 to 19	19	61	80
20 to 24	20	39	59
25 to 29	13	25	38
30 to 34	12	14	26
35 to 39	9	16	25
40 to 44	2	9	11
45 to 49	5	13	18
50 to 54	8	15	23
55 to 59	3	2	5
60 to 64	3	3	6
65 to 69	1	3	4
70 to 74	0	0	0
75+	0	4	4
Total	95	204	299

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 Rotorua District were cliffs and banks (77), fences (50), ditches (39), trees (37), and posts and poles (30) from a total of 330 objects struck.

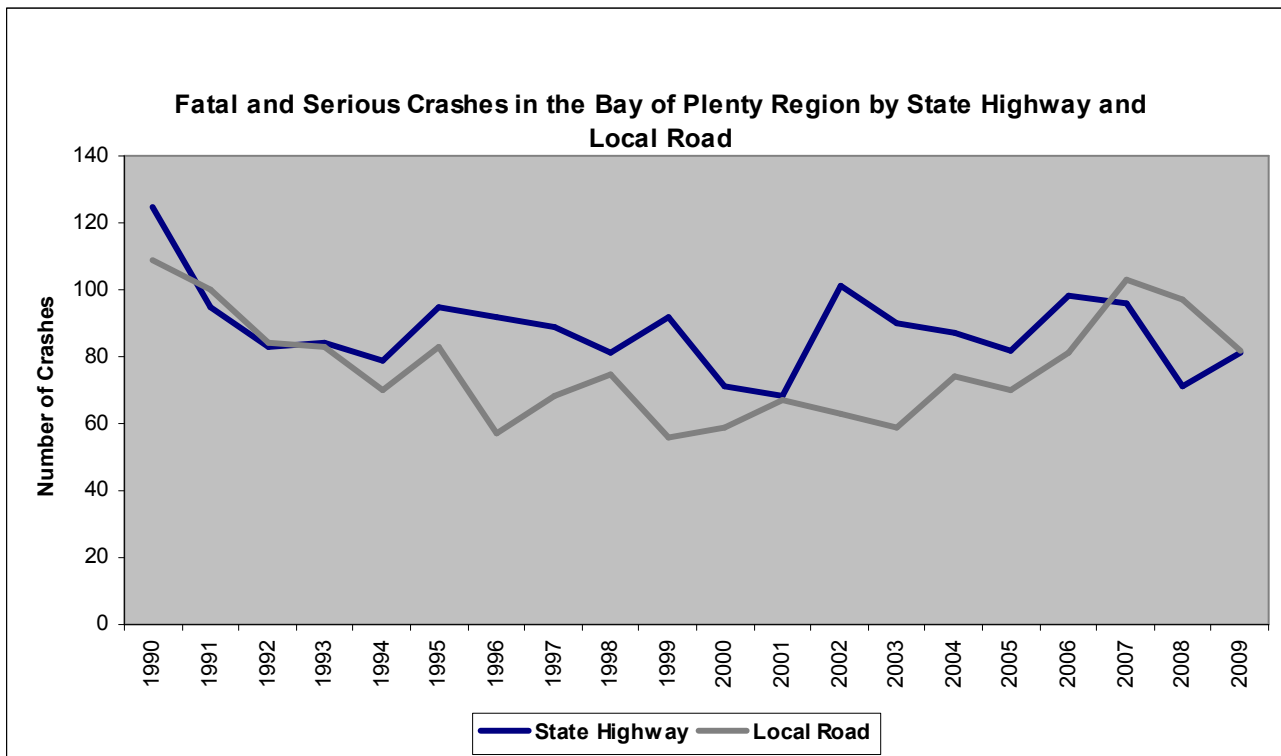
Further information about the 151 injury loss of control or head on crashes on bends on **local** roads in Rotorua District 2005 to 2009:

- 9 deaths, 51 serious injuries and 173 minor injuries
- 75 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (73 crashes)
- 34 percent of crashes involved alcohol
- 30 percent in the wet
- 64 percent of crashes involved speed too fast for the conditions
- Worst month January, best August
- Worst day Sunday, best Wednesday
- Worst three hour time period 6pm to 9pm
- Number of objects struck 149

Further information about the 166 injury loss of control or head on crashes on bends on **state highways** in Rotorua District 2005 to 2009:

- 11 deaths, 56 serious injuries and 203 minor injuries
- 63 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (74 crashes)
- 27 percent of crashes involved alcohol
- 41 percent in the wet
- 51 percent of crashes involved speed too fast for the conditions
- Worst month July, best September and November (equal)
- Worst day Saturday, best Monday and Wednesday (equal)
- Worst three hour time period 6pm to 9pm
- Number of objects struck 181

## Looking back—the last two decades ...



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