



# briefing notes - road safety issues

## Western Bay of Plenty 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 Western Bay of Plenty.

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 Western Bay of Plenty 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 Western Bay of Plenty 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 Western Bay of Plenty District and we encourage safety engaged staff at Western Bay of Plenty 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

#### Western Bay of Plenty District

Alcohol  
Crashes at night  
Wet road crashes

### 2009 road trauma

#### Casualties

#### Western Bay of Plenty District

Deaths	9
Serious casualties	51
Minor casualties	144

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

Speed  
Alcohol / drugs  
Young drivers  
Roads and roadsides  
Motorcyclists

#### Crashes

#### Western Bay of Plenty District

Fatal crashes	7
Serious injury crashes	38
Minor injury crashes	89
Non-injury crashes	344

## 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 2005-2009

(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
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

## Western Bay of Plenty District overview

In 2009 on local roads in Western Bay of Plenty District there were 57 injury crashes and 116 non-injury crashes. In addition on state highways in Western Bay of Plenty District there were 77 injury crashes and 228 non-injury crashes.

The tables below show the number of injuries resulting from the 134 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	9	37	128	174
Urban	0	14	16	30
Total	9	51	144	204

Casualties by State Highway / local road 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Local road	1	20	51	72
State Highway	8	31	93	132
Total	9	51	144	204

Crash trends in Western Bay of Plenty District				
Year	Fatal crashes	Serious crashes	Minor crashes	Total crashes
2000	11	22	47	80
2001	13	23	57	93
2002	7	29	69	105
2003	14	24	76	114
2004	6	31	78	115
2005	5	22	59	86
2006	8	30	71	109
2007	6	45	98	149
2008	6	38	70	114
2009	7	38	89	134

Crash characteristics (all roads)		
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	32	23
Night	38	35
Wet	28	31
Speed	25	23
Poor handling	27	30

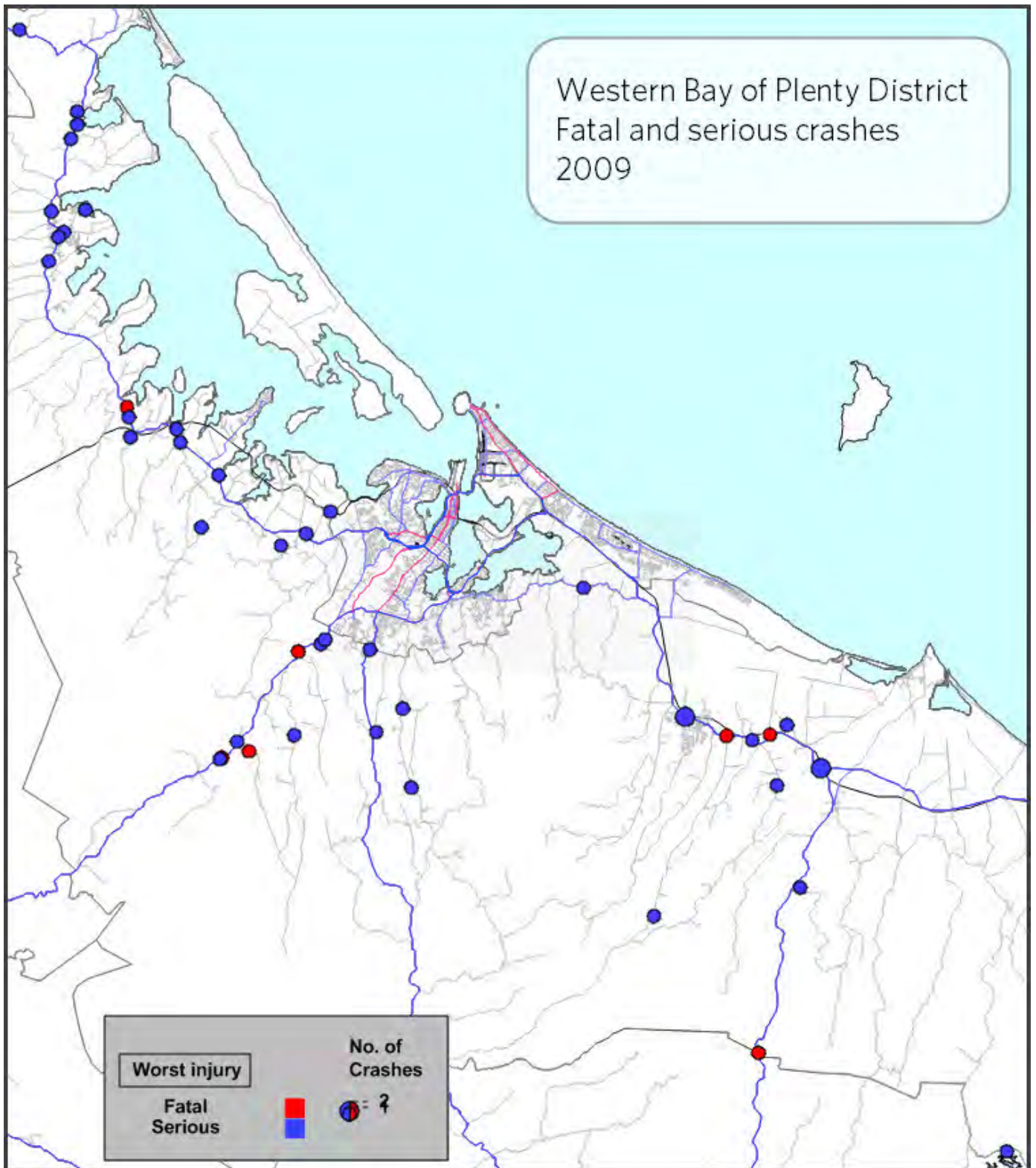
Further information about the 216 injury and 468 non-injury crashes on **local roads** in Western Bay of Plenty District 2005 to 2009:

- 6 deaths, 73 serious and 211 minor injuries
- Worst month May, best January
- Worst day Saturday, best Tuesday
- 31 percent on wet roads
- 40 percent at night
- 19 percent at intersections
- 521 roadside objects struck \*
- Most represented five year age block in 'at fault' drivers in injury crashes: 15 to 19 years (30 percent of at fault drivers)
- Social cost of crashes in 2009 \$30m

Further information about the 376 injury and 811 non-injury crashes on **state highways** in Western Bay of Plenty District 2005 to 2009:

- 33 deaths, 152 serious and 412 minor injuries
- Worst month May, best October
- Worst day Friday, best October
- 32 percent on wet roads
- 31 percent at night
- 26 percent at intersections
- 723 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 \$63m

\* 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 Western Bay of Plenty District, alcohol was a factor in 32 percent of fatal and serious crashes and 23 percent of injury crashes.

Number of alcohol related injury crashes			
Crash year	Open road	Urban road	Total
2005	9	5	14
2006	27	3	30
2007	27	6	33
2008	22	8	30
2009	26	4	30
Total	111	26	137

(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	30
20-24	24	35
25-29	11	17
30-34	10	8
35-39	9	2
40-44	4	2
45-49	8	2
50-54	5	1
55-59	1	1
60-64	1	0
65-69	0	1
70-74	1	0
75+	0	0

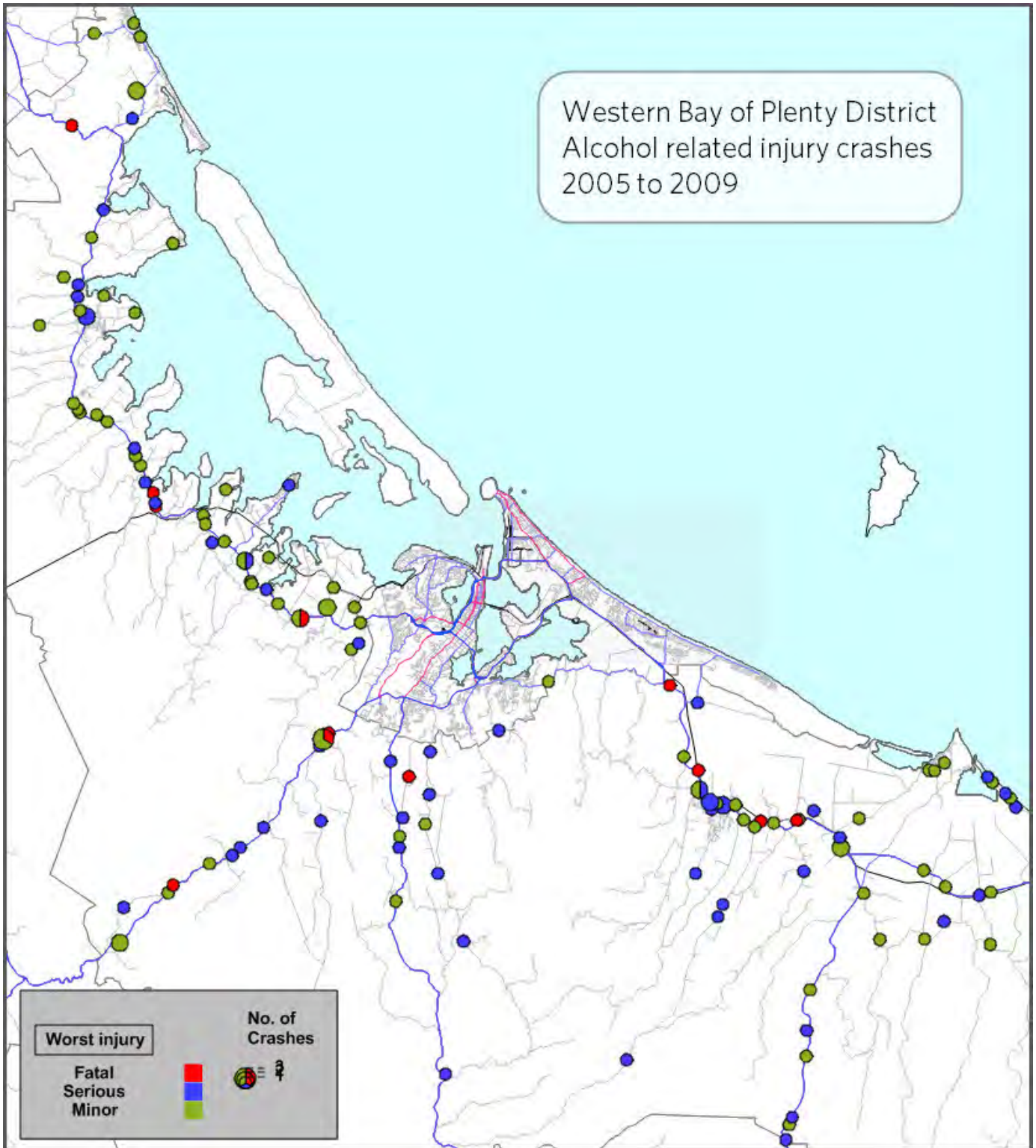
It is interesting to note the changing age patterns of those choosing to drink and crash. In Western Bay of Plenty District there has been a shift from being weighted to young drivers to a broader age spread. 25 years ago 65 percent of at fault drivers were aged under 25, today this is 48 percent. It 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 the district this has not translated into an increased proportion in youth alcohol related crashes. The number of alcohol related fatal and serious casualties has fallen from 104 (1980-1984) to 87 (2005-2009), while minor casualties have risen from 91 (1980-1984) to 126 (2005-2009).

Further information about the 60 alcohol related injury crashes on **local roads** in Western Bay of Plenty District 2005 to 2009:

- 2 deaths, 30 serious and 50 minor injuries
- 75 percent of at fault drivers were male
- Most common crash type "lost control turning right" (24 crashes)
- 17 percent at intersections
- 83 percent night time
- Worst three hour time period 9pm to midnight
- Worst month July and August (equal), best March
- Worst day Sunday, best Monday
- Number of roadside objects struck, 55
- Most common object struck, cliff or bank

Further information about the 77 alcohol related injury crashes on **state highways** in Western Bay of Plenty District 2005 to 2009:

- 14 deaths, 41 serious and 76 minor injuries
- 82 percent of at fault drivers were male
- Most common crash type "lost control turning right" (20 crashes)
- 8 percent at intersections
- 70 percent night time
- Worst three hour time period 6pm to 9pm
- Worst month January, best May and October (equal)
- Worst day Sunday, best Monday
- Number of roadside objects struck, 72
- Most common object struck , cliff or bank and fence (equal)



## Night time crashes

Between 2005 and 2009, there were a total of 207 night time injury crashes on in Western Bay of Plenty District.

Night time injury crashes					
Road type	2005	2006	2007	2008	2009
Open	20	44	34	26	43
Urban	8	5	6	13	8
Total	28	49	40	39	51

Over half of all night time crashes in the Western Bay of Plenty District 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 a very approximate value for the amount of travel under taken at night for various age groups and to give some perspective to the rate these age groups are crashing. (There is not enough data to approximate at a local body level).

Looking at night travel as a whole (nationally) approximately 14 percent is under taken 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 and gender of at fault drivers in night time injury crashes 2005 to 2009			
Age group	Female	Male	Total
15 to 19	20	42	62
20 to 24	11	31	42
25 to 29	3	13	16
30 to 34	6	10	16
35 to 39	6	8	14
40 to 44	0	11	11
45 to 49	3	13	16
50 to 54	2	6	8
55 to 59	0	2	2
60 to 64	1	2	3
65 to 69	0	1	1
70 to 74	0	2	2
75+	0	2	2
Total	52	143	195

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

This would suggest that 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.

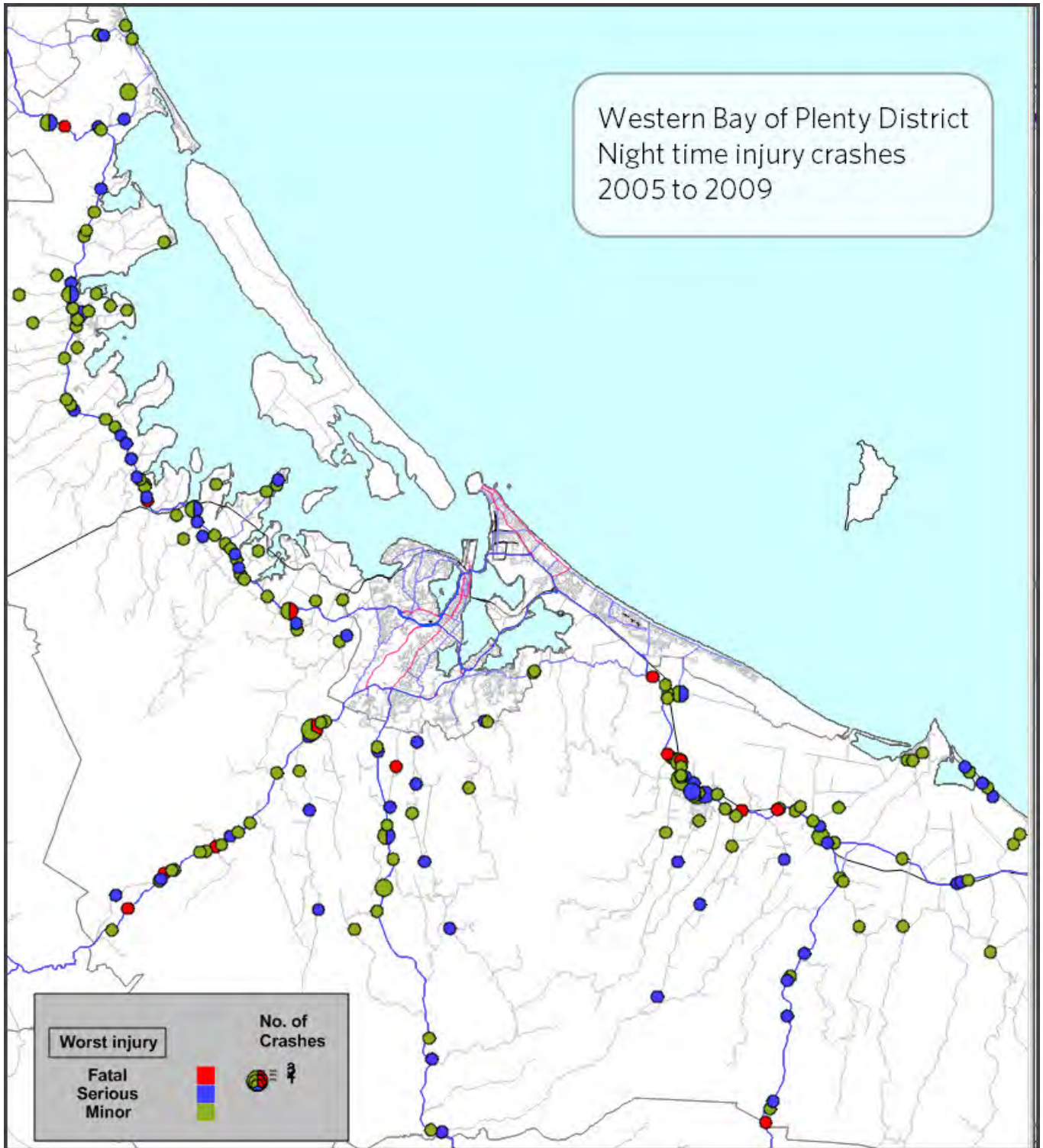
Further information about the 81 injury night time on **local roads** in Western Bay of Plenty District 2005 to 2009:

- 2 deaths, 30 serious and 78 minor injuries
- 70 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (29 crashes)
- 62 percent of crashes involved alcohol
- 4 percent of crashes involved fatigue as a contributory factor
- 42 percent of crashes involved speed too fast for the conditions
- 31 percent were in the wet
- 70 percent in rural areas
- 12 percent of crashes were at intersections
- 67 percent of crashes involved a roadside object being struck
- Most common object struck, cliff or bank (19)

Further information about the 126 injury night time crashes on **state highways** in Western Bay of Plenty District 2005 to 2009:

- 19 deaths, 51 serious and 134 minor injuries
- 75 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (30 crashes)
- 43 percent of crashes involved alcohol
- 21 percent of crashes involved fatigue as a contributory factor
- 26 percent of crashes involved speed too fast for the conditions
- 30 percent were in the wet
- 87 percent in rural areas
- 16 percent of crashes were at intersections
- 80 percent of crashes involved a roadside object being struck
- Most common object struck, cliff or bank (26)





## Crashes in the wet

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

Between 2005 and 2009 there were a total of 184 wet road injury crashes on roads in Western Bay of Plenty District. These resulted in 12 fatalities, 61 serious injuries and 198 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 Western Bay of Plenty 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 offering 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	8	5	20	13	17
State Highways	15	15	30	24	37
Total	23	20	50	37	54

Wet road injury crashes	
Crash causes on wet roads (total crash count)*	Months with highest crashes* (Crash count for month)
Poor handling (80)	July (13) and April (12)
Road factors (72)	March (10) and January, April (equal 9)
Speed (63)	August (10) and July (8)
Alcohol (40)	July (7) and April, June (equal 6)
Poor observation (37)	July (8) and May (6)

\* A crash can have multiple or a combination of causes

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

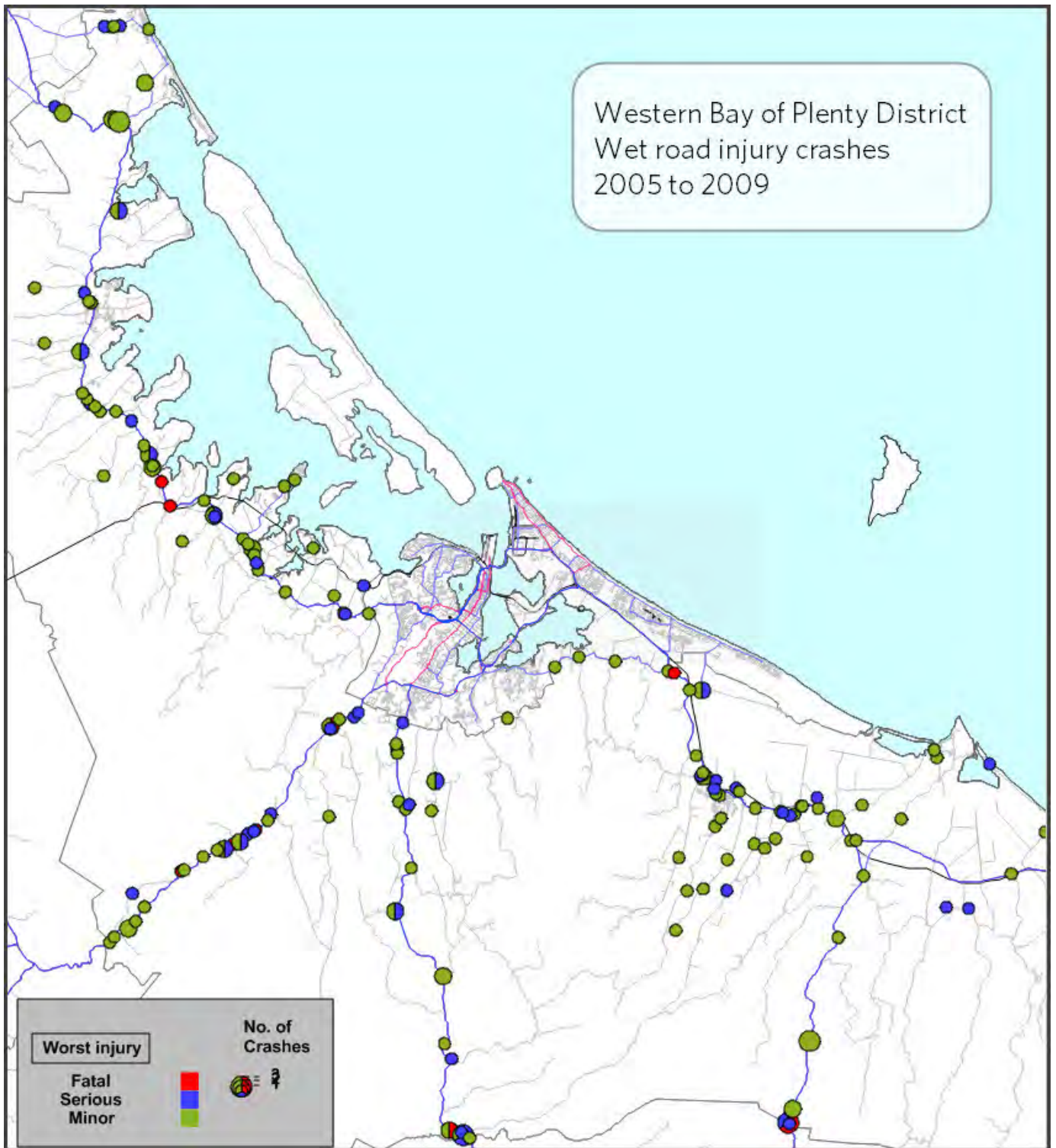
Month	Local roads	State highways
January	0	15
February	4	8
March	2	9
April	11	11
May	5	9
June	9	7
July	11	16
August	6	12
September	5	11
October	2	7
November	2	6
December	3	10
TOTAL	63	121

Further information about the 63 injury wet road crashes in Western Bay of Plenty District on **local roads** 2005 to 2009:

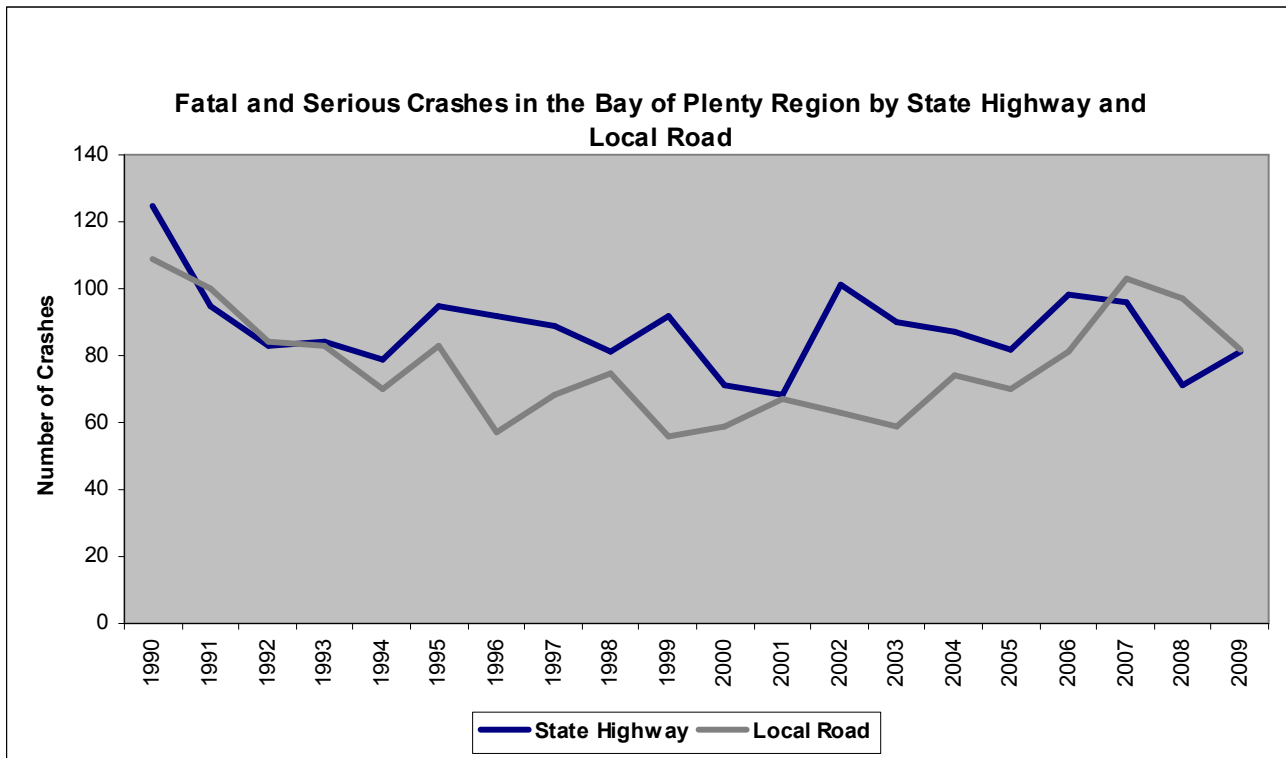
- Most common crash type was "loss of control turning right" (22 crashes)
- 40 percent at night
- 24 percent injury crashes include alcohol
- 43 percent injury crashes speed related
- Worst month April and July (equal), best January
- 25 percent urban

Further information about the 121 injury wet road injury crashes in Western Bay of Plenty District on **state highways** 2005 to 2009:

- Most common crash types were "head on or loss of control at a bend", "Loss of control turning right" and "loss of control turning left" (equal) (23 crashes each)
- 31 percent at night
- 21 percent injury crashes include alcohol
- 30 percent injury crashes speed related
- Worst month July, best November
- 7 percent urban



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



## Contacts

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