



New Zealand Government

briefing notes - road safety issues

Taupo 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 Taupo 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 Taupo 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 Taupo 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 Taupo District and we encourage safety engaged staff at Taupo District Council to use their free access to the Ministry of Transport's Crash Analysis System (CAS) to delve deeper into the highlighted

Major road safety issues

Taupo District

Intersections
Crashes at bends
Road factor crashes

2009 road trauma

Casualties

Taupo District

Deaths	18
Serious casualties	58
Minor casualties	172

National priorities from Road Safety 2020— Safer Journeys

Speed
Alcohol / drugs
Young drivers
Roads and roadsides
Motorcyclists

Crashes

Taupo District

Fatal crashes	11
Serious injury crashes	42
Minor injury crashes	107
Non-injury crashes	265

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
Taupo 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

Taupo District overview

In 2009 on local roads in Taupo District there were 70 injury crashes and 122 non-injury crashes. In addition on state highways in Taupo District there were 90 injury crashes and 143 non-injury crashes. The tables below shows the number of injuries resulting from the 160 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	18	49	122	189
Urban	0	9	50	59
Total	18	58	172	248

Casualties by state highway / local road 2009				
	Fatalities	Serious injuries	Minor injuries	Total
Local road	3	28	64	95
State highway	15	30	108	153
Total	18	58	172	248

Crash trends in Taupo District				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
2000	11	21	47	79
2001	9	33	64	106
2002	7	26	76	109
2003	15	24	79	118
2004	13	18	74	105
2005	8	27	92	127
2006	4	21	116	141
2007	19	27	104	150
2008	14	31	88	133
2009	11	42	107	160

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
Intersections	17	21
Bends	48	41
Road Factors	21	18
Alcohol	25	17
Speed	26	24

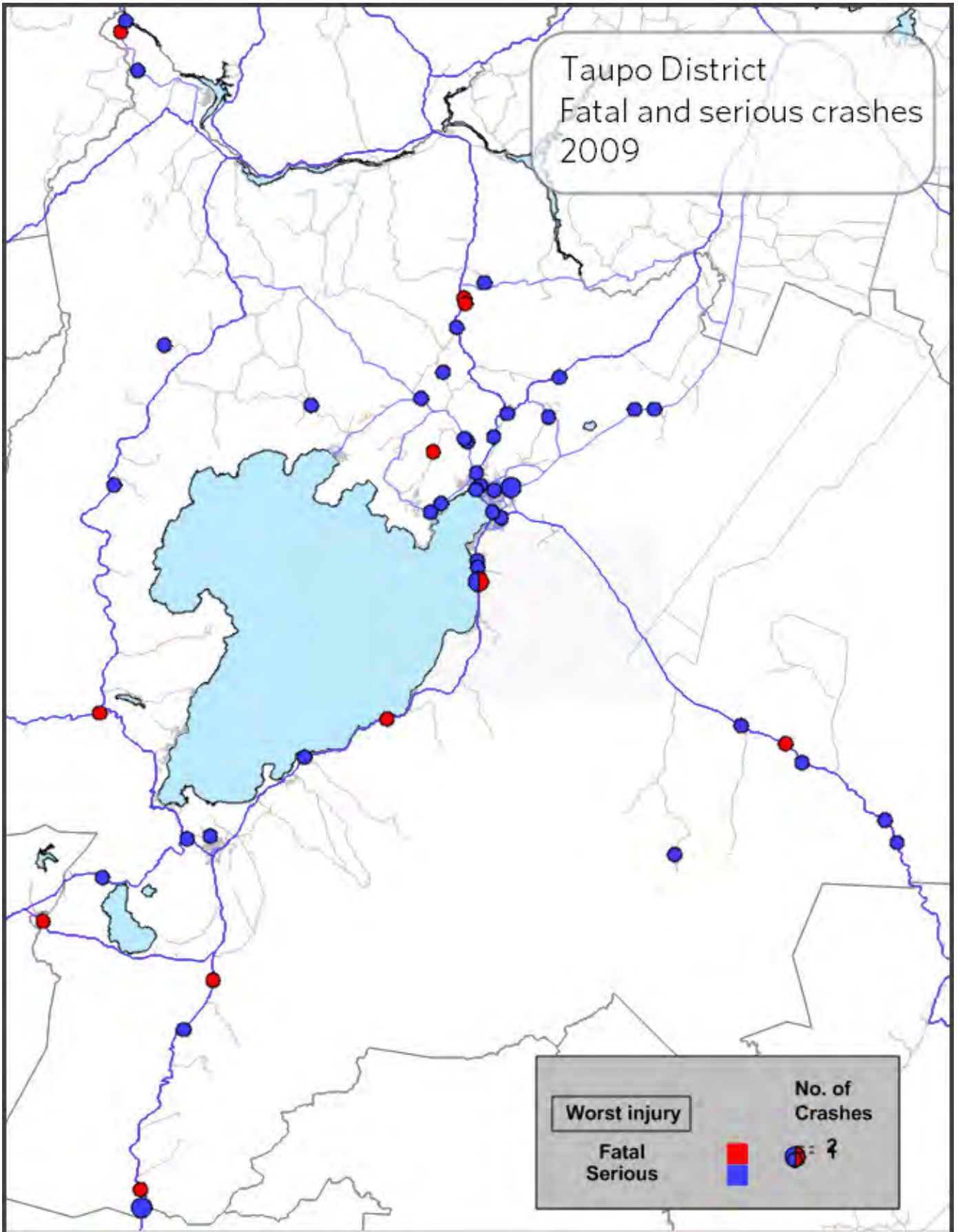
Further information about the 300 injury and 577 non-injury crashes on **local roads** in Taupo District 2005 to 2009:

- 16 deaths, 32 serious and 298 minor injuries
- Worst months February & June, best September
- Worst day Friday, best Tuesday
- 25 percent on wet roads
- 32 percent at night
- 45 percent at intersections
- 382 roadside objects struck *
- Most represented five year age block in 'at fault' drivers in injury crashes: 15 to 19 years (19 percent of at fault drivers)
- Social cost of crashes in 2009 \$32.5m

Further information about the 411 injury and 716 non-injury crashes on **state highways** in Taupo District 2005 to 2009:

- 53 deaths, 126 serious and 488 minor injuries
- Worst month July, best November
- Worst day Friday, best Wednesday
- 31 percent on wet roads
- 30 percent at night
- 25 percent at intersections
- 579 roadside objects struck *
- Most represented five year age block in 'at fault' drivers in injury crashes: 20 to 24 years (15 percent of at fault drivers)
- Social cost of crashes in 2009 \$66.1m

* 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.



Intersections

During the five year period 2005 to 2009 within Taupo District there were a total of 215 injury crashes at intersections.

Injuries at Intersections (casualties)					
Injury type	2005	2006	2007	2008	2009
Fatality	1	0	5	1	0
Serious	10	4	13	11	11
Minor	59	56	41	40	51
Total	70	60	59	52	62

The most common crash type at intersections is when a driver is proceeding straight through an intersection and is hit by a vehicle approaching from a right angle (55 crashes); with the next most common being a vehicle turning right and being hit by a vehicle approaching from the right (41 crashes).

Drivers at fault aged below 25 account for 24 percent of all at fault drivers.

Ages of at fault drivers in injury crashes at intersections 2005 to 2009			
Age group	Female	Male	Total
15-19	15	9	24
20-24	8	13	21
25-29	8	9	17
30-34	5	8	13
35-39	13	11	24
40-44	7	13	20
45-49	4	10	14
50-54	6	5	11
55-59	3	4	7
60-64	3	6	9
65-69	2	4	6
70-74	3	4	7
75+	8	7	15
Total	85	103	188

In Taupo District there are 21 intersection sites which have had three or more injury crashes in the last five years, including three sites with 11 or more injury crashes in the past five years.

Locations with 5 or more injury crashes between 2005 to 2009 including at least one in 2009		
Intersection name	2005 to 2009	2009
SH 1 / Poihihi Road	18	3
SH 5 / Arrowsmith Avenue	12	4
SH 1 / SH 5 (Wairakei)	11	2
SH 1 / Huka Falls Road	7	3
Tauhara Road / Taharepa Road	6	2
Poihihi Road / Whangamata Road	5	1

Further information about the 118 injury crashes at intersections on **local roads** in Taupo District 2005 to 2009:

- 5 deaths, 23 serious and 122 minor injuries
- 22 percent wet roads
- 20 percent night time
- Worst month March, best October
- Worst day Friday, best Tuesday
- Worst three hour time period, 3pm to 6pm

Further information about the 97 injury crashes at intersections on **state highways** in Taupo District 2005 to 2009:

- 2 deaths, 26 serious and 125 minor injuries
- 26 percent wet roads
- 16 percent night time
- Worst month February, best April & August
- Worst day Friday, best Tuesday
- Worst three hour time period, 3pm to 6pm

Road Factors - including roadside hazards

A safe road environment includes appropriate geometric design standards, good delineation, adequate surface skid resistance and a roadside free of unforgiving hazards.

Safer Journeys places "Safer Roads and Roadside" as one of the five areas of "High concern".

Between 2005 and 2009 in Taupo District "road factors" were a contributing factor in 18 percent of fatal and serious crashes and 21 percent of injury crashes. Additionally in Taupo District between 2005 and 2009 47 percent of all fatal and serious crashes and 48 percent of injury crashes involved roadside hazards being struck.

Road factor related injury crashes					
	2005	2006	2007	2008	2009
Rural	14	22	28	14	26
Urban	4	4	6	5	3
Total	18	26	34	19	29

Roadside hazards normally contribute to the overall crash outcome by increasing injury severity, but can in themselves be a contributory factor in a crash. For example, occupants in an errant vehicle striking a large tree close to the road edge are likely to sustain worse injuries than if the tree was not present. If the same tree had low branches and was located at an intersection, it could also contribute to a lack of visibility. It needs to be noted that if a vehicle hits the same type of object more than once it is only counted in

Types of road factors in injury crashes		
Road factor type 2005 to 2009	Local roads	State highways
Slippery road*	27	72
Road surface in poor condition	4	17
Road obstructed	1	0
Visibility limited	8	7

* note that NZTA does not assume that a road that is "wet" is necessarily "slippery". This factor is only added to CAS if the attending Police Officer specifically mentions a "slippery road".

Most common types of hazard struck - all injury crashes in Taupo District

Type of hazard 2005 to 2009	Number of times hazard struck
Overbank	15
Cliff/bank	27
Fence	9
Post or pole	6
Tree	11
Guardrail	7

Further information about the 37 road factor related injury crashes on **local roads** in Taupo District 2005 to 2009:

- 4 deaths, 10 serious and 34 minor injuries
- Most common crash type "loss of control at bends" (18 crashes)
- 54 percent wet road
- 38 percent night time
- Most common at fault driver age group 15 to 19 years (21 percent of at fault drivers)
- Worst months June, best September

Further information about the 89 road factor related injury crashes on **state highways** in Taupo District 2005 to 2009:

- 11 deaths, 27 serious and 108 minor injuries
- Most common crash type "loss of control at bends" (53 crashes)
- 60 percent wet road
- 30 percent night time
- Most common at fault driver age group 25 to 29 years (14 percent of at fault drivers)
- Worst month July, best November

Crashes at bends

Between 2005 and 2009 48 percent of fatal and serious crashes and 41 percent of all injury crashes in Taupo 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	11	24	48
2006	3	9	41	53
2007	8	11	41	60
2008	9	15	37	61
2009	6	22	41	69
Total	29	68	194	291

42 percent of at fault drivers involved in 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	32	44
20 to 24	13	30	43
25 to 29	10	18	28
30 to 34	6	25	31
35 to 39	8	12	20
40 to 44	9	25	34
45 to 49	7	21	28
50 to 54	2	14	16
55 to 59	5	9	14
60 to 64	4	3	7
65 to 69	1	1	2
70 to 74	2	0	2
75+	4	5	9
Total	84	195	279

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 Taupo District were cliffs and banks (85), ditches (11), fences (35), trees (36) and posts and poles (14) from a total of 210 objects struck.

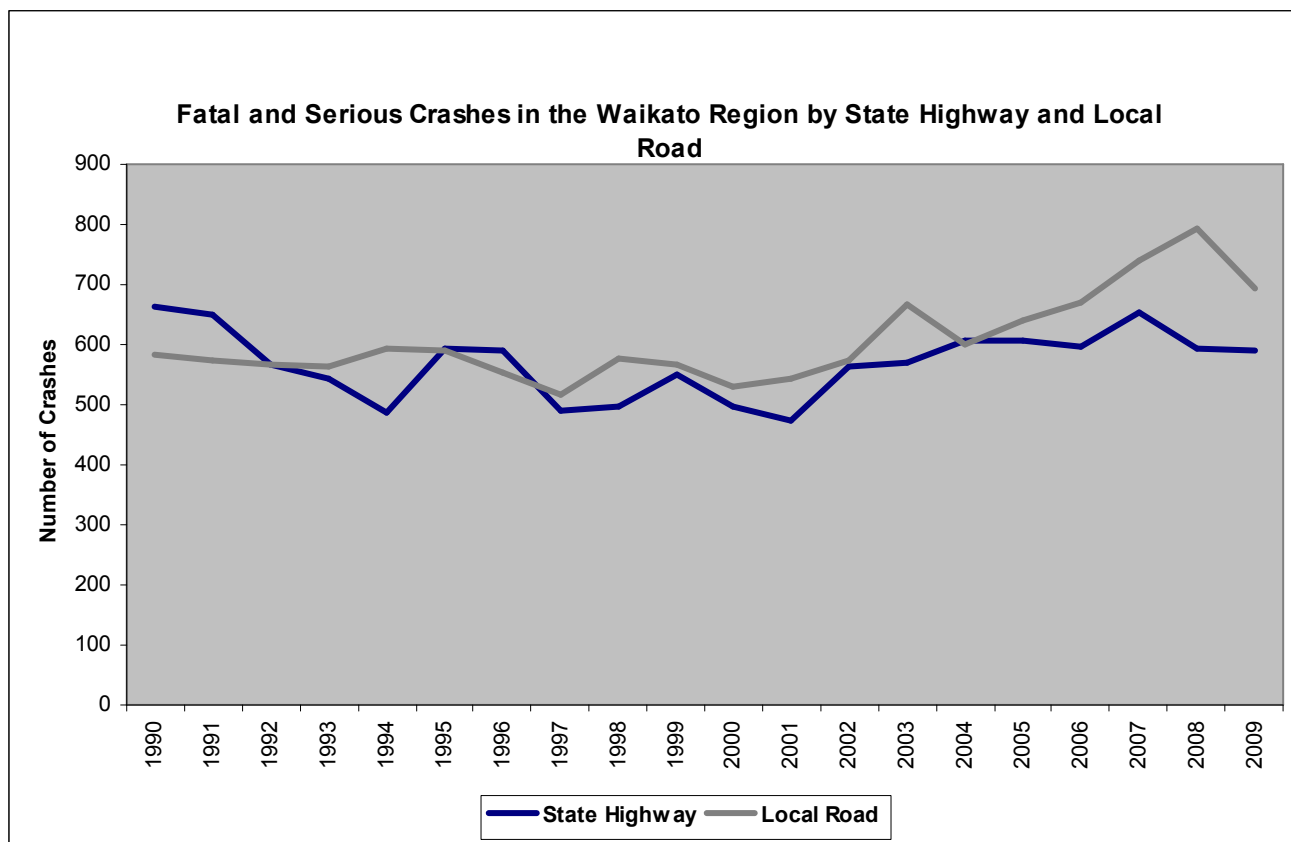
Further information about the 106 injury loss of control or head on crashes on bends on **local roads** in Taupo District 2005 to 2009:

- 9 deaths, 38 serious and 102 minor injuries
- 72 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (57 crashes)
- 40 percent of crashes involved alcohol
- 28 percent in the wet
- 50 percent of crashes involved speed, too fast for the conditions
- Worst month April, best October
- Worst day Saturday, best Wednesday
- Worst three hour time period 9pm to midnight
- Number of objects struck 78

Further information about the 185 injury loss of control or head on crashes on bends on **state highways** in Taupo District 2005 to 2009:

- 24 deaths, 65 serious and 197 minor injuries
- 71 percent of at fault drivers were male
- Most common crash type "loss of control turning right" (84 crashes)
- 16 percent of crashes involved alcohol
- 39 percent in the wet
- 44 percent of crashes involved speed, too fast for the conditions
- Worst month September, best May
- Worst day Saturday, best Tuesday
- Worst three hour time period 3pm to 6pm
- Number of objects struck 132

Looking back—the last two decades ...



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