

New Zealand Government

briefing notes - road safety issues

Matamata-Piako 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 Matamata-Piako 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 Matamata-Piako 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 Matamata-Piako 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 Matamata-Piako District and we encourage safety engaged staff at Matamata-Piako 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 Matamata-Piako District Speed

Straight road crashes

Wet road crashes

Motorcyclists

2009 road trauma

| Casualties | Matamata-Piako District |
|--------------------|-------------------------|
| Deaths | 5 |
| Serious casualties | 26 |
| Minor casualties | 94 |

National priorities from Road Safety 2020— Safer Journeys

Speed
Alcohol / drugs
Young drivers
Roads and roadsides

| Crashes | Matamata-Piako District |
|------------------------|-------------------------|
| Fatal crashes | 5 |
| Serious injury crashes | 25 |
| Minor injury crashes | 64 |
| Non-injury crashes | 217 |

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 | | VE WILL TA | KE ACTION SYSTEM | |
|---|--|----------------|---------------------|---------------------|
| | SAFE ROADS AND ROAD- SIDES | SAFE SPEEDS | SAFE VEHICLES | SAFE ROAD USE |
| Areas of high concern | | | | |
| Reducing alcohol/drug impaired driving | | | 1 | 1 |
| Increasing the safety of young drivers | 1 | 1 | 1 | 1 |
| Safe roads and roadsides | 1 | | | |
| Safe speeds | 1 | 1 | 1 | |
| Increasing the safety of motorcycling | 1 | 1 | 1 | 1 |
| Areas of medium conce | rn | | | |
| Improving the safety of the light vehicle fleet | | | 1 | 1 |
| Safe walking and cycling | 1 | 1 | 1 | 1 |
| Improving the safety of heavy vehicles | 1 | 1 | 1 | 1 |
| Reducing the impact of fatigue | 1 | 1 | 1 | 1 |
| Addressing distraction | 1 | | 1 | 1 |
| Reducing the impact of high risk drivers | | 1 | 1 | 1 |
| Areas of continued and | emergir | g focus | | |
| Increasing the level of restraint use | | | 1 | 1 |
| Increasing the safety of older New Zealanders | 1 | 1 | 1 | 1 |

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 intersec- tions 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 |
| 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 |

Matamata-Piako District overview

In 2009 on local roads in Matamata-Piako District there were 50 injury crashes and 94 non-injury crashes. In addition on state highways in Matamata-Piako District there were 44 injury crashes and 123 non-injury crashes.

The tables below show the number of injuries resulting from the 94 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 | 21 | 75 | 100 |
| Urban | 1 | 5 | 19 | 25 |
| Total | 5 | 26 | 94 | 125 |

Casualties by state highway / local road 2009

| | Fatalities | Serious injuries | Minor injuries | Total | |
|------------------|------------|---------------------|-------------------|-------|--|
| Local road | 3 | 10 | 49 | 62 | |
| State highway | 2 | 16 | 45 | 63 | |
| Total | 5 | 26 | 94 | 125 | |

Crash trends in Matamata-Piako District

| Year | Fatal Crashes | Serious Crashes | Minor Crashes | Total Crashes |
|------|------------------|--------------------|------------------|------------------|
| 2000 | 13 | 24 | 55 | 94 |
| 2001 | 8 | 18 | 41 | 67 |
| 2002 | 8 | 17 | 55 | 80 |
| 2003 | 3 | 20 | 64 | 87 |
| 2004 | 8 | 23 | 61 | 92 |
| 2005 | 4 | 19 | 68 | 91 |
| 2006 | 2 | 25 | 66 | 93 |
| 2007 | 13 | 16 | 65 | 94 |
| 2008 | 15 | 31 | 95 | 141 |
| 2009 | 5 | 25 | 64 | 94 |

| 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 con- tributory cause | | | |
| Speed | 28 | 24 | | | |
| Straights | 26 | 27 | | | |
| Wet | 28 | 30 | | | |
| Fatigue | 10 | 12 | | | |
| Alcohol | 24 | 16 | | | |

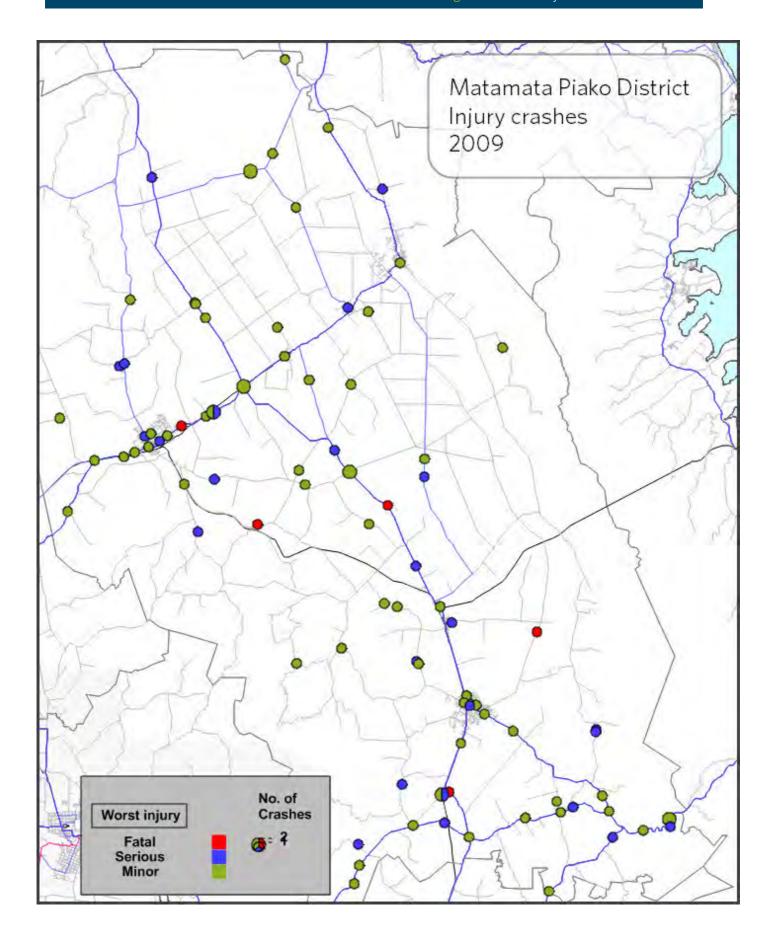
Further information about the 251 injury and 480 non-injury crashes on **local roads** in Matamata-Piako District 2005 to 2009:

- 20 deaths, 73 serious and 252 minor injuries
- Worst month September, best December
- Worst day Friday, best Tuesday
- 26 percent on wet roads
- 37 percent at night
- 29 percent at intersections
- 583 roadside objects struck *
- Most represented five year age block in 'at fault' drivers in injury crashes: 15 to 19 years (24 percent of at fault drivers)
- Social cost of crashes in 2009 \$27.3m

Further information about the 262 injury and 559 non-injury crashes on **state highways** in Matamata-Piako District 2005 to 2009:

- 30 deaths, 73 serious and 300 minor injuries
- Worst month January, best February
- Worst day Saturday, best Monday
- 33 percent on wet roads
- 33 percent at night
- 30 percent at intersections
- 608 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 \$26.7m

^{*} 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 24 percent of injury crashes in Matamata-Piako District involved travelling too fast for the conditions.

| Speed related crashes | | | | | |
|-----------------------------|------|------|------|------|------|
| Speed related crashes | 2005 | 2006 | 2007 | 2008 | 2009 |
| Rural | 11 | 24 | 26 | 25 | 15 |
| Urban | 3 | 0 | 2 | 13 | 3 |
| Total | 14 | 24 | 28 | 38 | 18 |

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 * | 28 | 9 | 37 |
| 20 - 24 | 21 | 6 | 27 |
| 25 - 29 | 9 | 1 | 10 |
| 30 - 39 | 16 | 7 | 23 |
| 40 - 49 | 10 | 3 | 13 |
| 50 - 59 | 6 | 1 | 7 |
| 60 - 69 | 1 | 2 | 3 |
| 70+ | 0 | 1 | 1 |
| Total | 91 | 30 | 121 |

Further information about the 76 speed related injury crashes on **local roads** in Matamata-Piako District 2005 to 2009:

- 8 deaths, 30 and 72 minor injuries
- Most common crash type "Lost control on a bend" (58 crashes)
- 37 percent wet road
- 26 percent night time
- 22 percent include alcohol as a factor
- Worst day Saturday, best Thursday
- Worst three hour time period 3pm to 6pm

Further information about the 46 speed related injury crashes on **state highways** in Matamata-Piako District 2005 to 2009:

- 5 deaths, 15 serious and 49 minor injuries
- Most common crash type "Lost control on a bend" (37 crashes)
- 50 percent wet road
- 47 percent night time
- 28 percent include alcohol as a factor
- Worst day Saturday, best Sunday
- Worst three hour time period 9pm to midnight

Crashes in the wet

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

Between 2005 and 2009 there were a total of 155 wet road injury crashes on roads in Matamata-Piako District. These resulted in 10 fatalities, 40 serious injuries and 164 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 Matamata-Piako 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.

The tables below show the number of injuries 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).

Local 6 1 1 9 2 roads State 28 32 18 31 27 Highways Total 24 29 41 29 32

| Wet road injury crashes 2005 to 2009 | | | | | |
|--------------------------------------|------|------|------|------|------|
| Road type | 2005 | 2006 | 2007 | 2008 | 2009 |
| Open | 18 | 31 | 28 | 32 | 27 |
| Urban | 6 | 1 | 1 | 9 | 2 |
| Total | 24 | 32 | 29 | 41 | 29 |

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

| Month | Local roads | State high- ways | Combined |
|-----------|----------------|---------------------|----------|
| January | 4 | 3 | 7 |
| February | 5 | 3 | 8 |
| March | 8 | 8 | 16 |
| April | 4 | 9 | 13 |
| May | 7 | 8 | 15 |
| June | 3 | 14 | 17 |
| July | 10 | 10 | 20 |
| August | 8 | 4 | 12 |
| September | 4 | 5 | 9 |
| October | 1 | 15 | 16 |
| November | 5 | 4 | 9 |
| December | 5 | 8 | 13 |
| TOTAL | 64 | 91 | 155 |

Further information about the 64 injury wet road crashes in Matamata-Piako District on **local roads** 2005 to 2009:

- Most common crash type was "loss of control at a bend" (29 crashes)
- 28 percent at night
- 16 percent injury crashes include alcohol
- 44 percent injury crashes were speed related
- Worst month July, best October (these do not necessarily match with months with the most or least rainfall)
- 14 percent urban

Further information about the 91 injury wet road injury crashes in Matamata-Piako District on **state highways** 2005 to 2009:

- Most common crash type was "loss of control at a bend" (42 crashes)
- 33 percent at night
- 12 percent injury crashes include alcohol
- 25 percent injury crashes were speed related
- Worst month October, best January & February (these do not necessarily match with months with the most or least rainfall)
- 11 percent urban

Straight road - loss of control or head on

Between 2005 and 2009, twenty seven percent of all fatal and injury crashes in Matamata-Piako District were straight road - loss of control or head on crashes.

Straight road - loss of control or head on crashes 2005 to 2009

| Crash year | Fatal crashes | Serious crashes | Minor crashes | Total |
|---------------|------------------|--------------------|------------------|-------|
| 2005 | 2 | 7 | 22 | 31 |
| 2006 | 0 | 6 | 22 | 28 |
| 2007 | 1 | 4 | 19 | 24 |
| 2008 | 6 | 4 | 19 | 29 |
| 2009 | 2 | 9 | 14 | 25 |
| Total | 11 | 30 | 96 | 137 |

These crashes occur when a driver has lost control and either runs off the road or collides with another vehicle.

When drivers lose control, they may crash into roadside hazards such as ditches, banks, poles or trees. Hitting roadside objects can result in a minor off-road event becoming far more serious.

Ages of at fault drivers in straight road related crashes 2005 to 2009

| Age group | Female | Male | Total |
|-----------|--------|------|-------|
| 15-19 | 10 | 14 | 24 |
| 20-24 | 8 | 15 | 23 |
| 25-29 | 9 | 7 | 16 |
| 30-34 | 3 | 8 | 11 |
| 35-39 | 6 | 6 | 12 |
| 40-44 | 2 | 9 | 11 |
| 45-49 | 1 | 11 | 12 |
| 50-54 | 6 | 4 | 10 |
| 55-59 | 2 | 1 | 3 |
| 60-64 | 1 | 1 | 2 |
| 65-69 | 2 | 2 | 4 |
| 70-74 | 2 | 1 | 3 |
| 75+ | 2 | 5 | 7 |

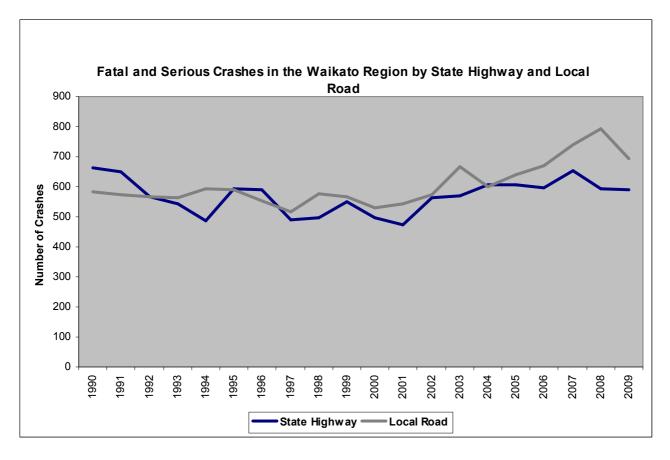
Further information about the 55 injury straight road-loss of control or head on crashes on **local roads** in Matamata-Piako District 2005 to 2009:

- 6 deaths, 13 serious and 55 minor injuries
- Most common crash type "off road to left"
- 25 percent of crashes involved alcohol
- 18 percent of crashes involved speed
- 11 percent involved "road factors"
- 18 percent involved fatigue
- 82 percent resulted in a roadside hazard being struck
- 24 percent on wet roads
- 33 percent at night
- Worst month January, best October
- Worst day of week Wednesday , best Tuesday
- Worst three hour time period 3pm to 6pm

Further information about the 82 injury straight roadloss of control or head on crashes on **state highways** in Matamata-Piako District 2005 to 2009:

- 5 deaths, 24 serious and 84 minor injuries
- Most common crash type "off road to left"
- 21 percent of crashes involved alcohol
- 4 percent of crashes involved speed
- 10 percent involved "road factors"
- 38 percent involved fatigue
- 78 percent resulted in a roadside hazard being struck
- 30 percent on wet roads
- 35 percent at night
- Worst month January, best September & November
- Worst day of week Saturday, best Sunday
- Worst three hour time period 6am to 9am

Looking back—the last two decades ...



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