## New Zealand Government

# briefing notes - road safety issues

NZ TRANSPORT AGENCY

# **Grey District**

New Zealand Transport Agency, (NZTA), has prepared this road safety issues report. It is based on reported crash data for the 2005-2009 period. The intent of the report is to highlight the key road safety issues to help identify possible ways to reduce the number of road deaths and injuries in Grey District.

In March 2010 the Government released a new strategy, "Safer Journeys", to build on the gains made under the Road Safety to 2010 Strategy. The focus of these Issues Reports has changed to reflect the new strategy. Many of the issues reported on in the past fit neatly into the new strategy. An explanation of where things fit is included in this report.

The issues chosen for this report are drawn from: the most common crash types, those that appear over-represented when Grey District is compared to similar local bodies, those with high social cost, (high numbers of fatal and serious crashes), or those that are a priority under Safer Journeys.

We have included a brief overview of crashes in the district.

We encourage Grey District to use its free access to the Ministry of Transport's Crash Analysis System (CAS), to delve deeper into the highlighted issues and other road safety issues in the district. Also the NZTA Southern Performance Information Team in Christchurch is available to provide further information or assistance if required.

Major road safety issues	Note Issues are not in any order	2009 road trauma		
Grey District		Casualties	Grey District	
Bend - loss of control or head-on		Deaths	3	
Speed		Serious casualties	17	
Intersections		Minor casualties	47	
Young drivers				

Nationally	Crashes	Grey District
Speed	Fatal crashes	3
Alcohol / Drugs	Serious injury crashes	14
Young Drivers	Minor injury crashes	36
Roads and Roadsides	Non-injury crashes	89

2010

Motorcyclists

## Safer Journeys

For the past few years road safety in New Zealand has been directed by the Road Safety to 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 strategy.

Under this new strategy, road safety will be looked at from a system wide approach rather than focusing on the road user. The emphasis will be on improving all the parts road transport system that impact on safety; the road, the vehicle, travel speeds and the road user.

A number of areas were chosen as the areas of focus under the strategy. These areas were assigned a priority, based on research that shows five major areas of concern, five areas of lesser concern, and three areas where continued focus is needed, or concern is emerging.

These divisions are shown in the table 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

In this year's Road Safety Issues Briefing Notes changes have been made to the wording, and to the data presented, to better reflect and emphasise the connections to the new strategy.

On the following page we present a table that shows the areas of "high concern" under the Safer Journeys strategy. This table allows some relative comparison of the Safer Journeys priorities across the local bodies and regional authorities in the Canterbury / West Coast Region of the New Zealand Transport Agency. Table 3 – Safer Journeys' areas of concern and the Safe System

AREAS OF CONCERN WE WILL ADDRESS		VE WILL TA		6
	SAFE ROADS AND ROAD- SIDES	SAFE SPEEDS	SAFE VEHICLE	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	m			
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	ng focus		
Increasing the level of restraint use			1	1
Increasing the safety of older New Zealanders	1	1	1	1

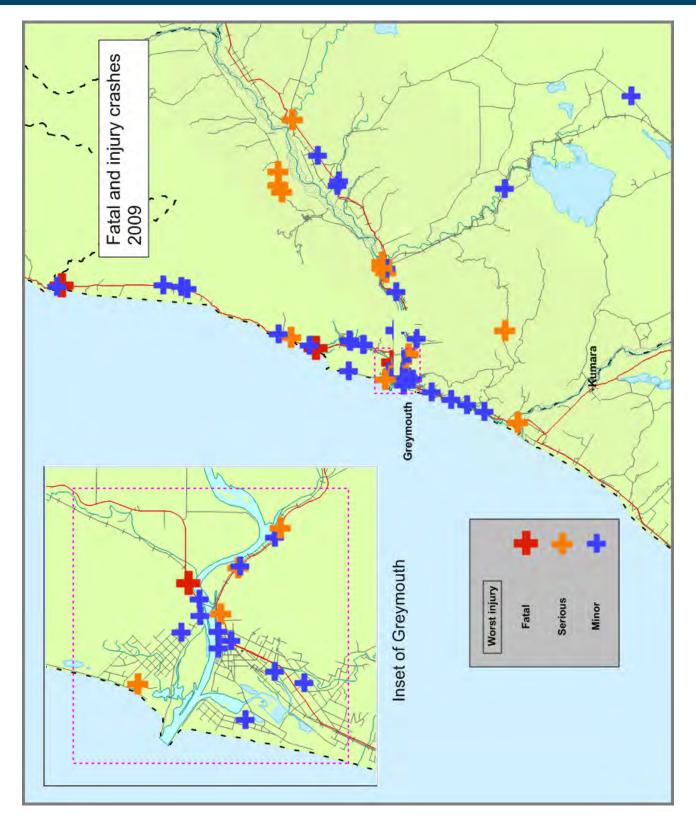
For some priorities (eg motorcycling), complementary action will be taken across all four areas of the Safe System. For others (eg reducing the impact of drink driving or safe roads), more effort would be focussed on one or two of the four Safe System areas.

#### Source

Safer Journeys, Road Safety Strategy 2010-2020 Ministry of Transport March 2010 Status of the areas of "high concern" from Safer Journeys 2020 - Canterbury / West Coast Region (table is based on 2005 to 2009 fatal and serious crashes - local roads as well as State Highways)

Area of concern	Reducing alcohol and drug impaired driving	Increase the Safety of young drivers	Safer roads ar	nd roadsides	Reducing speed related crashes	Increasing the safety of motorcycling
Measure	Percentage of crashes with this factor	Percentage of at fault drivers 24 years or less	Percentage of crashes with an object struck	Number of intersections with two or more fatal or serious casualties in the last five years	Percentage of crashes with this factor	Percentage of crashes involving a motorcyclist
Buller District	17	26	58	0	32	29
Grey District	20	23	49	1	29	31
Westland District	16	32	56	0	32	22
Kaikoura District	15	24	62	0	38	28
Hurunui District	18	21	64	0	34	16
Waimakariri District	20	32	50	3	17	15
Christchurch City	16	34	31	83	15	22
Selwyn District	20	26	45	5	16	17
Ashburton District	21	28	45	2	25	16
Timaru District	18	35	36	2	17	27
Mackenzie District	6	23	63	0	13	3
Waimate District	30	36	45	0	23	23
Chatham Islands	38	17	75	0	25	38
West Coast Region	17	34	55	1	31	27
Canterbury Region	17	31	39	95	18	20
New Zealand	23	34	45	446	23	18

#### 2010



## Overview

In 2009 on Grey District local roads in there were 22 reported injury crashes, of which 7 were fatal or serious. In addition, on State Highways there were 31 reported injury crashes of which 10 were fatal or serious.

The table below shows the number of casualties resulting from the 53 injury crashes by rural or urban areas (rural is defined as an area with a speed limit of 80km/h or more).

Casualties 2009 Grey District						
	Fatalities	Serious injuries	Minor injuries	Total		
Rural	2	15	31	48		
Urban	1	2	16	19		
Total	3	17	47	67		

In Grey District in 2009, two thirds of fatalities, 88 percent of serious injuries and two thirds of minor injuries were sustained in crashes on roads in rural areas of the district.

Overall the number of crashes reported in Grey District in 2009 was the highest in the last ten years. This was true for both serious and minor crashes.

Crash trends in Grey District					
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes	
2000	1	8	16	25	
2001	4	5	25	34	
2002	2	3	22	27	
2003	0	13	23	36	
2004	2	8	28	38	
2005	3	9	23	35	
2006	2	3	31	36	
2007	0	6	31	37	
2008	4	5	35	44	
2009	3	14	36	53	

The following table illustrates where the issues considered for this report fit within the Safer Journeys priority. The numbers and percentages give an indication of how they fit in the priorities for Grey District.

Grey District						
Crash type or contributory cause	Percent <b>fatal</b> and serious crashes	Percent <b>all</b> injury crashes	No. of injury crashes	Safer Journeys priority		
Alcohol	20	15	31	1		
Too fast	29	29	59	1		
At bends	55	49	100	1		
On straights	14	14	28	1		
Intersections	16	26	54	1		
Road factors	31	15	31	1		
Motorcycling	31	13	29	1		
Young drivers	23	43	87	1		
Fatigue	6	9	19	2		
Distraction	10	5	23	2		
Pedestrians	4	4	9	2		
Cycling	4	4	8	2		
Heavy vehicles	14	7	16	2		
Older road users	10	8	16	3		
Overseas drivers	34	6	12	-		

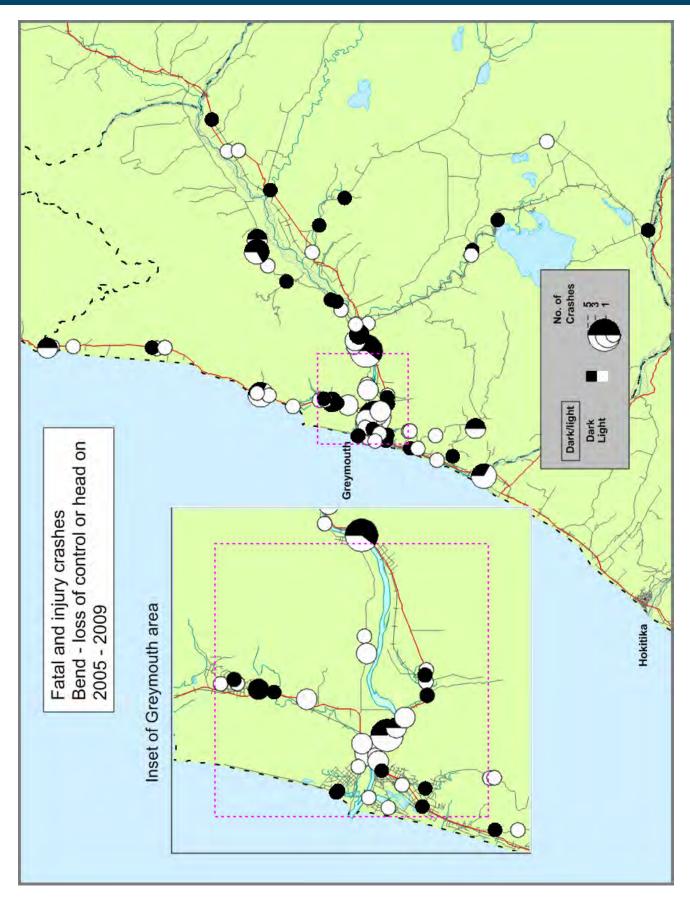
Further information about the 90 injury crashes on local roads in Grey District, 2005 to 2009:

- 5 deaths, 24 serious injuries and 93 minor casualties
- Five year age group with most at fault drivers in injury crashes: 15 to 19 years (33 percent of at fault drivers)
- Social cost of crashes in 2009 \$7.82 m

Further information about the 115 injury crashes on State Highways in Grey District, 2005 to 2009:

- 8 deaths, 25 serious injuries and 127 minor casualties
- Five year age group with most at fault drivers in injury crashes: 15 to 19 years (19 percent of at fault drivers)
- Social cost of crashes in 2009 \$20.06 m

#### 2010



## Bend - loss of control or head on

Between 2005 and 2009, 49 percent of all injury crashes in Grey District were bend - loss of control or head on crashes. These crashes resulted in 9 deaths, 30 serious injuries and 106 minor injuries.

In 2008 the number of fatal crashes increased. In 2009 the number of fatal crashes did not drop, and there was an increase in both serious and minor injury crashes.

Bend - loss of control or head on crashes Grey District (2005 - 2009)					
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total	
2005	1	4	11	16	
2006	1	1	15	17	
2007	0	3	16	19	
2008	3	2	13	18	
2009	3	9	18	30	
Total	8	19	73	100	

In these crashes, males made up over three quarters of at fault drivers. Overall, drivers aged 15 to 24 years represented 47 percent of at fault drivers. Of the young drivers only, male drivers made up 85 percent of at fault drivers.

#### At fault drivers in Bend - loss of control or head on crashes 2005 to 2009

Ages	Male	Female	Total
15 to 19	25	5	30
20 to 24	14	2	16
25 to 29	6	4	10
30 to 39	9	5	14
40 to 49	8	3	11
50 to 59	5	1	6
60 to 69	6	0	6
70 and over	3	2	5
Total	76	22	98

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

The most common roadside hazards struck in injury bend - loss of control or head on crashes in Grey District were cliffs or banks (18), over bank (16), fences (14), tree (13) and ditches (12) from a total of 95 objects struck.

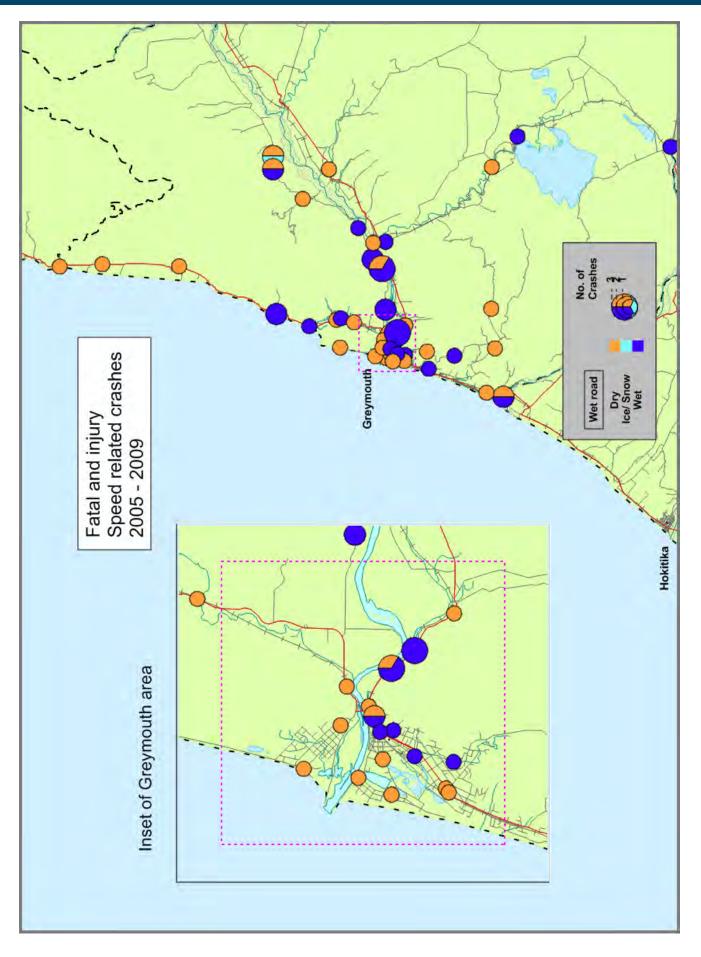
A roadside hazard was struck in 73 percent of bend - loss of control or head on crashes in the district.

Further information about the 45 injury bend - loss of control or head on crashes on local roads in Grey District, (2005 to 2009):

- 2 deaths, 16 serious injuries and 46 minor injuries
- 27 percent of crashes involved alcohol
- 60 percent of crashes involved speed too fast for the conditions
- 20 percent involved road factors
- 58 percent involved poor handling
- 62 percent were on rural roads
- 44 percent were on wet or icy roads
- 44 percent were at night
- Worst month March
- Worst day of week Friday
- Worst time period 6 pm till 9 pm

Further information about the 115 injury bend - loss of control or head on crashes on State Highways in Grey District, (2005 to 2009):

- 8 deaths, 25 serious injuries and 127 minor injuries
- 14 percent of crashes involved alcohol
- 24 percent of crashes involved speed too fast for the conditions
- 15 percent involved road factors
- 33 percent involved poor handling
- 70 percent were on rural roads
- 45 percent were on wet or icy roads
- 27 percent were at night
- Worst month November
- Worst day of week Friday, Saturday
- Worst time period 3 pm till 6 pm



## Speed

Nationally, speed is one of the major contributing factors to road crashes. Reducing speeds is an important road safety goal. Excessive speed increases the likelihood of a crash occurring by reducing the time available for a driver to react to a situation. It also leads to more severe injuries. Research has shown that a one km/h reduction in average speed can produce a three percent reduction in injury crashes.

Speed related crashes in CAS are not necessarily crashes where the driver was exceeding the posted speed limit but are crashes where, in the opinion of the Police Officer reporting the crash, the driver was travelling too fast for the prevailing conditions.

Between 2005 and 2009, 29 percent of injury crashes in Grey District involved travelling too fast for the conditions. These crashes resulted in 3 deaths, 13 serious injuries and 66 minor injuries.

Speed related crashes, Grey District						
Area	2005	2006	2007	2008	2009	
Rural	5	6	11	2	15	
Urban	4	5	2	4	5	
Total	9	11	13	6	20	

Two thirds of speed related crashes in the district were on roads in rural areas. Cash numbers rose in 2009 to more than twice the average of the previous four years.

The other main causes contributing to speed related crashes were:

- Handling errors
- Errors of judgement
- Alcohol

In these crashes young drivers represented 64 percent of at fault drivers. In this age group, males represented over 90 percent of at fault drivers. Overall males made up 47 percent of at fault drivers.

Age and gender of at fault drivers in speed
related injury crashes. (2009 - 2009)
Grey District

Drivers age	Male	Female	Total
15-19 years	21	2	23
20 - 24	13	1	14
25 - 29	2	1	3
30 - 39	7	5	12
40 - 49	3	1	4
50 - 59	1	0	1
60 - 69	0	1	1
70+	0	0	0
Total	47	11	58

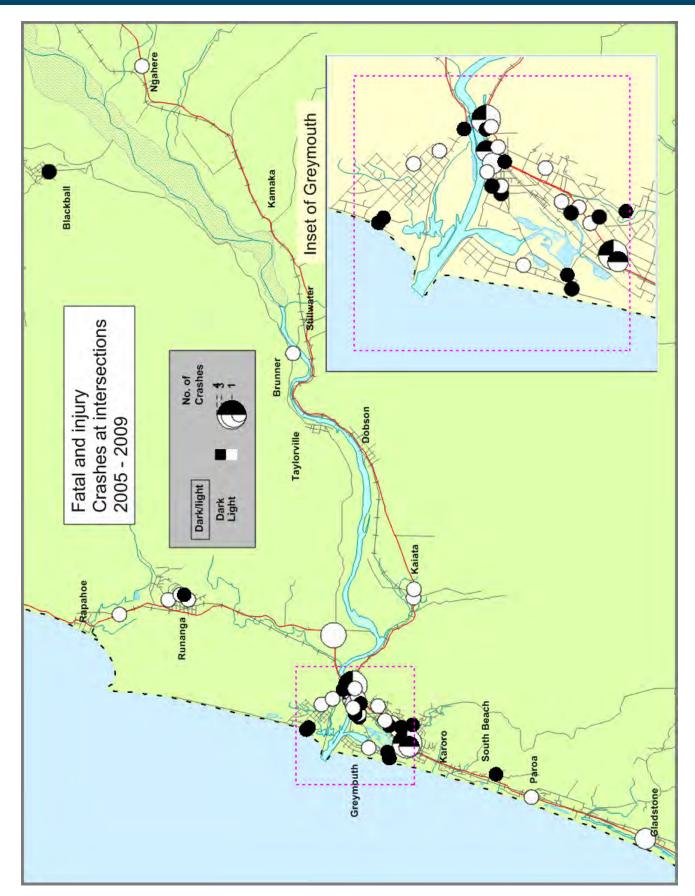
Further information about the 31 speed related injury crashes in Grey District on local roads (2005 to 2009):

- 7 serious injuries and 36 minor injuries
- Most common crash type bend loss of control or head on
- 71 percent mid-block
- 45 percent urban
- 45 percent wet or icy road
- 48 percent night time
- Worst month July
- Worst day of week Friday
- Worst time 6 pm 9 pm

Further information about the 28 speed related injury crashes in Grey District on State highways (2005 to 2009):

- 3 deaths, 6 serious injuries and 30 minor injuries
- Most common crash type bend loss of control or head on
- 82 percent mid-block
- 21 percent urban
- 54 percent wet or icy road
- 25 percent night time
- Worst month March, July, November
- Worst day of week Tuesday, Saturday
- Worst time 3 pm 6 pm

#### 2010



### Intersections

During the five year period 2005 to 2009, on roads in Grey District, there were a total of 54 fatal and injury crashes at intersections.

Casualties in crashes at Intersections Grey District (2005 - 2009)					
	2005	2006	2007	2008	2009
Deaths	1	0	0	0	0
Serious injury	2	1	0	2	2
Minor injury	10	12	7	15	17
Total	13	13	7	17	19

In 2008 the number of casualties from crashes at intersections in Grey District rose, and did not reduce in 2009. 85 percent of crashes at intersections were at intersections in urban areas of the district.

Young drivers made up 43 percent of at fault drivers in crashes at intersection. Fifty five percent of these young drivers were males.

Drivers aged 70 and over were the next most represented age group, being 21 percent of at fault drivers.

# At fault drivers in Intersection 2005 to 2009

Ages	Male	Female	Total
15 to 19	12	2	14
20 to 24	8	1	9
25 to 29	0	0	0
30 to 39	1	3	4
40 to 49	4	2	6
50 to 59	3	3	6
60 to 69	2	1	3
70 and over	6	5	11
Total	36	17	53

# Main characteristics of injury Intersection crashes Grey District (2005-2009)

Crash characteristic	Percentage of crashes
Single vehicle	24%
Alcohol	13%
Excessive speed for the conditions	26%
Failed to stop or give way	52%
Poor observation	50%
Poor judgement	30%

The most common crash type at intersections was when a driver turns right across the path of a vehicle approaching from the opposite direction, followed by the right angle collision.. Loss of control when turning left or right at an intersection were also common crash types.

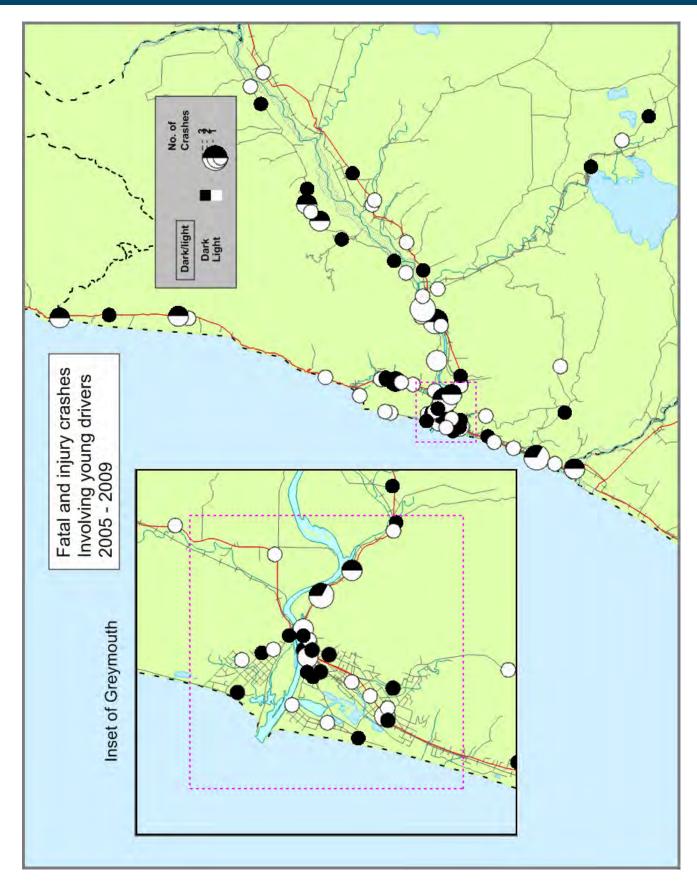
In Grey District there are 7 intersection sites which have had 2 or more injury crashes in the last five years, including 3 sites with 3 or more injury crashes in the past five years.

Further information about the 28 injury crashes at intersections on local roads in Grey District 2005 to 2009:

- 2 serious injuries and 33 minor injuries
- 36 percent wet or icy roads
- 50 percent night time
- Worst month March
- Worst day of week Monday
- Worst time 6 pm till 9 pm

Further information about the 26 injury crashes at intersections on State Highways in Grey District 2005 to 2009:

- 1 death, 5 serious injuries and 28 minor injuries
- 35 percent wet or icy roads
- 19 percent night time
- Worst month August
- Worst day of week Friday, Saturday
- Worst time 3 pm till 6 pm



# Young drivers

Young drivers are those aged less than 25 years. This analysis is based on injury crashes only as driver age is not recorded in non-injury crashes.

In Grey District between 2005 and 2009, 43 percent of injury crashes involved young drivers. These crashes resulted in 4 deaths, 24 serious injuries and 109 minor injuries.

The total number of casualties from crashes involving young dropped from 2005 to 2008, but rose again in 2009.

Casualties from crashes involving young drivers Grey District

	Fatal	Serious	Minor	Total
2005	2	7	24	33
2006	1	4	25	30
2007	0	4	21	25
2008	1	2	16	19
2009	0	7	23	30
Total	4	24	109	137

Over one third of the 102 young drivers in these crashes had a learner or restricted licence. Over three quarters of them were males and 50 percent were 15-19 year olds.

Nearly all the young drivers were local residents.

Young drivers at fault in injury crashes Grey District (2005 - 2009)			
Licence type	Female	Male	Total
Full	38	9	47
Learner	9	3	12
Restricted	17	8	25
Overseas	0	2	2
Never licensed	3	2	5
Disqualified	4	0	4
Other (unknown, wrong class)	7	0	7
Total	78	24	102

Injury crashes involving young drivers Grey District (2005 - 2009) (% of injury crashes)				
Crash type or contributory cause	Urban roads	Rural roa		
Alcohol	8	8		

Alcohol	8	8
Speed	17	24
Failed to stop/Give way	12	2
Poor handling	13	27
Poor observation	18	13
Poor judgement	18	22
Lost control - straight	3	14
Lost control - bend	16	31
Crossing / turning	8	2

Further information about the 52 injury crashes involving young drivers on local roads in Grey District 2005 to 2009:

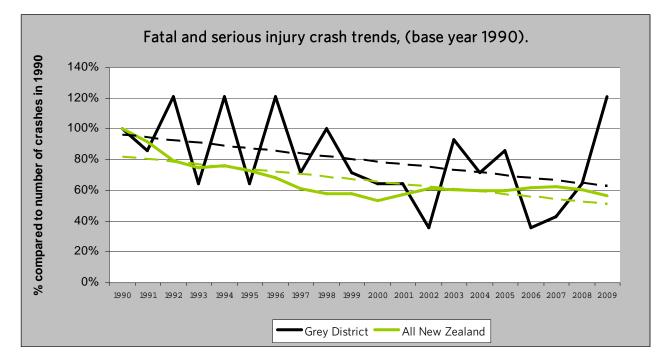
- 3 deaths, 16 serious injuries 57 minor injuries
- 62 percent were single vehicle crashes
- 52 percent were on urban roads
- 31 percent at intersections
- 48 percent at night
- 31 percent wet or icy roads
- Worst month March
- Worst day of week Sunday
- Worst time 6 pm to 9 pm

Further information about the 45 injury crashes involving young drivers on State highways in Grey District 2005 to 2009:

- 1 death, 8 serious injuries 52 minor injuries
- 60 percent were single vehicle crashes
- 29 percent were on urban roads
- 22 percent at intersections
- 33 percent at night
- 46 percent on wet or icy roads
- Worst month August
- Worst day of week Friday, Saturday
- Worst time 3 pm to 6 pm

## Looking back - the last two decades.

The vision of the Government's "Safer Journeys" road safety strategy is "A safe road system that is increasingly free of road deaths and serious injuries". The chart below illustrates the progress made in reducing fatal and serious casualties since 1990, for both Grey District and for the country as a whole.



## Contacts

#### New Zealand Transport Agency

Performance Information Manager (Southern) Geoff Holland PO Box 13364 Christchurch 03 964 2845 <u>Geoff.Holland@nzta.govt.nz</u>

Regional Communications Advisor Bob Nettleton PO Box 9058 Dunedin 03 951 3005 <u>Bob.Nettleton@nzta.govt.nz</u>

www.nzta.govt.nz

#### **New Zealand Police**

Road Policing Manager Tasman Hugh Flower New Zealand Police Private Bag 39 Nelson 7042 Phone 03 546 3855

www.police.govt.nz

#### Local Authority

West Coast Road Safety Coordinator Ivan Wilson 03 769 9678

Assets and Engineering Manager Mel Sutherland 03 769 8611

Grey District Council PO Box 382 Greymouth 7840 Phone 03 769 8600

www.greydc.govt.nz

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