



briefing notes - road safety issues

Southland State Highways

New Zealand Transport Agency has prepared this road safety issues report. It is based on reported crash data and trends for the 2004–2008 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 on State Highways in Southland Network Management Area.

The issues chosen for this report are drawn from either the most common crash types, those that appear over-represented or those with high social cost (high numbers of fatal and serious crashes mainly).

We have included a brief overview of crashes on State highways in the network management area.

We encourage Network Managers and operational staff to use their access to the Ministry of Transport's Crash Analysis System (CAS) to delve deeper into the highlighted issues. Also the NZTA Christchurch Performance Information team is available to provide further information if required. All data and maps in this note are from CAS.

Major road safety issues

Southland State Highways

Bend - loss of control or head-on

Straight Road - loss of control or head-on

Young Drivers

Overseas drivers

2008 road trauma

Casualties

Southland State Highways

Deaths	8
Serious casualties	40
Minor casualties	190

Nationally

Speed

Alcohol

Failure to give way

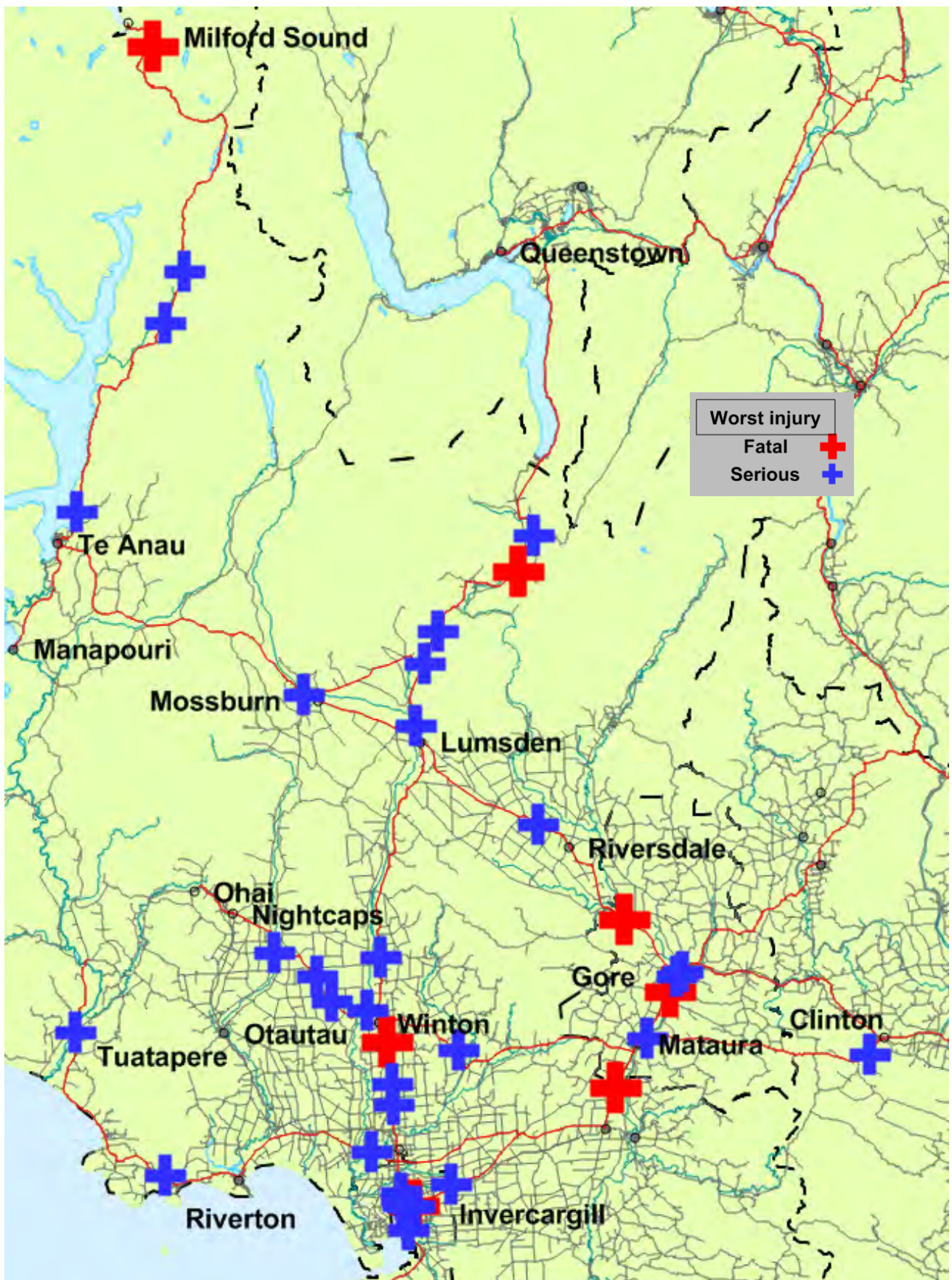
Restraints

Crashes

Southland State Highways

Fatal crashes	7
Serious injury crashes	31
Minor injury crashes	132
Non-injury crashes	241

Fatal and serious injury crashes
Southland State Highways
2008



Overview

In 2008 on State highways in Southland network area there were 170 injury crashes and 241 reported non-injury crashes.

The table below shows the number of injuries resulting from the 170 injury crashes by rural or urban areas for Southland State highways (rural is defined as an area with a speed limit of 80km/h or more).

Casualties by urban / rural 2008				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	25	184	771	980
Urban	3	58	356	417
Total	28	242	1127	1397

Almost 9 of every ten fatalities, three quarters of serious casualties and close to seven from every ten minor casualties from crashes on Southland State Highways were from crashes on rural highways.

Over the ten year period, the number of fatal crashes has fluctuated between four and eight. There is no long term reduction apparent. For serious and minor crashes the numbers have dropped in each of the last two years.

Crash trends on Southland State Highways				
Year	Fatal Crashes	Serious Crashes	Minor Crashes	Total Crashes
1999	6	27	58	91
2000	7	29	65	101
2001	8	52	144	204
2002	7	48	150	205
2003	4	47	131	182
2004	4	38	123	165
2005	4	40	147	191
2006	5	43	150	198
2007	7	37	138	182
2008	7	31	132	170

Injury crashes 2004 to 2008

Crash type or contributory cause 2004 to 2008	Percentage of all injury crashes
Alcohol	10
Too fast	18
At bends	36
On straights	22
Road factors	24
Young drivers (% at fault drivers)	42
Overseas drivers (% at fault drivers)	13

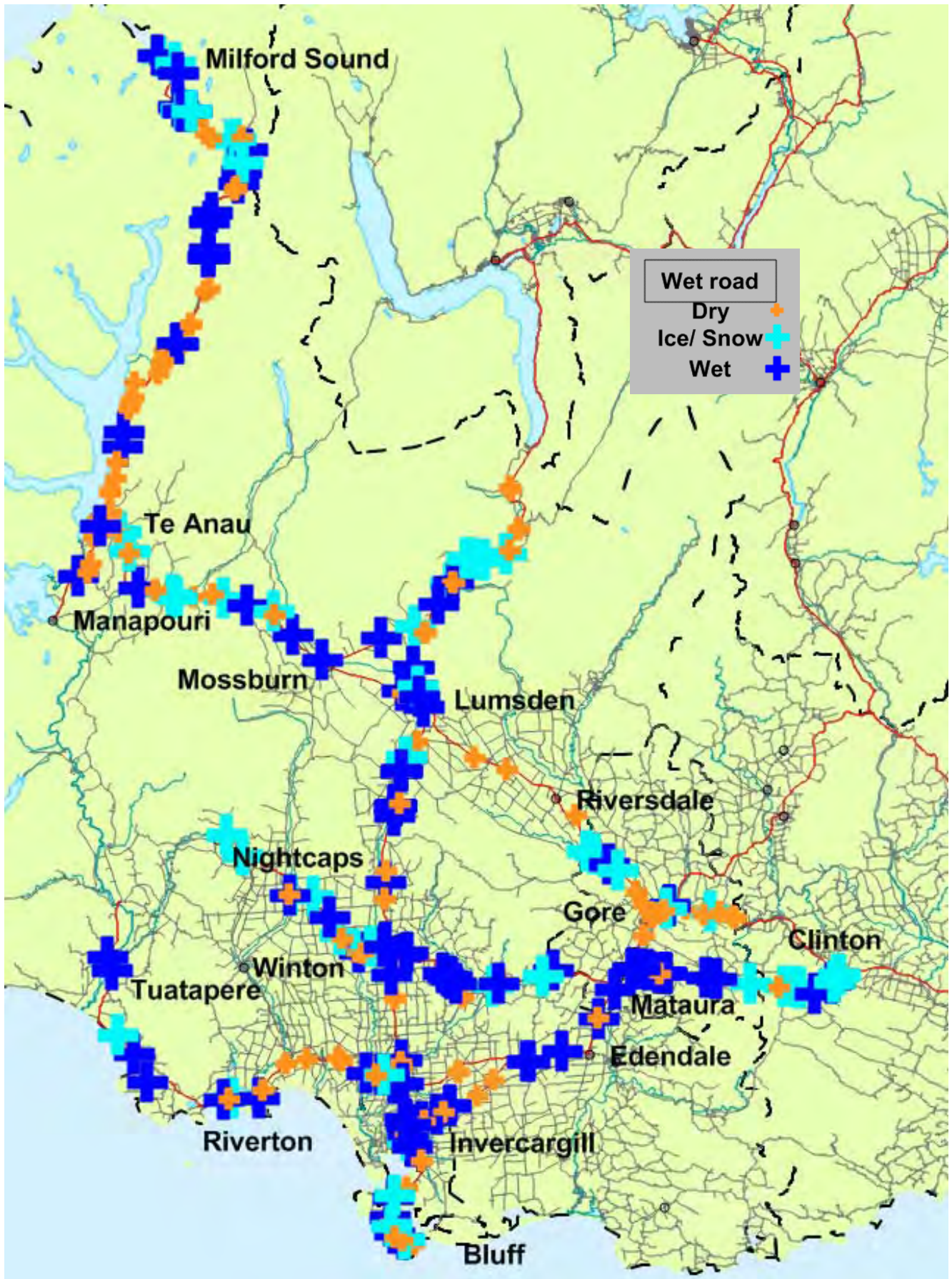
Social cost by State Highway Injury crashes 2004 to 2008

State Highway	Number of injury crashes	Social cost (m)
SH 1	288	\$107.8
SH 6	252	\$65.7
SH 93	43	\$9.7
SH 94	167	\$50.4
SH 95	9	\$1.9
SH 96	56	\$23.1
SH 97	8	\$2.5
SH 98	9	\$1.4
SH 99	74	\$23.5

Further information about 2004 to 2008 injury crashes on Southland State Highways :

- Worst month July
- Worst day Friday
- 38 percent on wet or icy roads
- 32 percent at night
- 29 percent at intersections
- 707 roadside objects struck
- Social cost of crashes in 2008 \$57.7 m

Fatal and injury Bend loss of control or head on crashes
Southland State Highways
2008



Bend - loss of control or head on

Between 2004 and 2008 thirty six percent of all injury crashes on Southland State Highways were bend - loss of control or head crashes. These crashes resulted in 11 fatalities, 106 serious injuries and 418 minor injuries.

Injury bend - loss of control; or head on crashes 2004 to 2008

Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2004	2	18	39	59
2005	3	17	49	69
2006	1	18	53	72
2007	1	14	43	58
2008	4	9	55	68
Total	11	76	239	326

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.

The most common roadside hazards struck in injury bend - loss of control or head on crashes on Southland State Highways were fence (81), cliff or bank (66), ditch (59), over bank (46) tree (40) and traffic sign (32) from a total of 386 objects struck.

Main characteristics of injury bend - loss of control or head on crashes

Crash characteristic	Percentage of crashes
Single vehicle	89
Alcohol	13
Excessive speed for the conditions	38
Road factors	41
Poor handling	56
Rural road	90
Wet or icy road	53
Night time	34

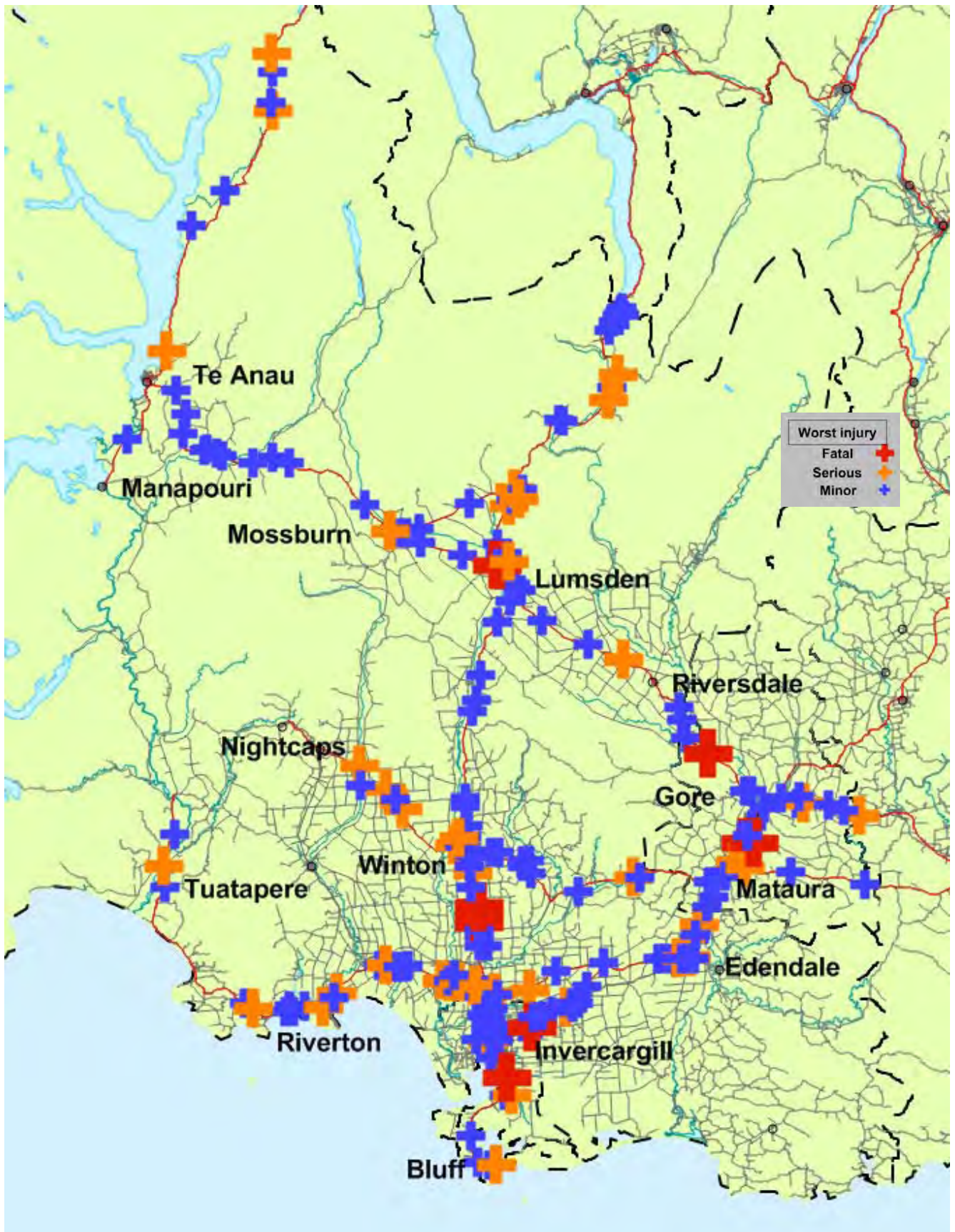
Injury bend - loss of control or head on crashes 2004 to 2008

	2004	2005	2006	2007	2008
SH 1	11	12	14	9	13
SH 6	14	10	12	16	12
SH 93	5	11	9	2	5
SH 94	15	22	24	18	25
SH 95	1	2	1	1	1
SH 96	6	7	7	6	6
SH 97	2	1	1	0	0
SH 98	0	0	0	1	1
SH 99	5	4	4	5	5

Further information about the 326 injury bend - loss of control or head on crashes on State Highways in Southland 2004 to 2008:

- 67 percent of at fault drivers were male
- Most common at fault driver age group 20 to 24 years (18 percent of at fault drivers)
- Worst month July
- Worst days Saturday, Sunday
- Worst times 9 am to midday and 3 pm to 6 pm

Injury straight road - loss of control or head on crashes
Southland State Highways
2004 - 2008



Straight road -loss of control or head on

Between 2004 and 2008 twenty two percent of all injury crashes on Southland State Highways were straight road - loss of control or head on crashes. These 203 crashes resulted in 9 fatalities, 54 serious injuries and 242 minor injuries.

Injury Straight road - loss of control or head on crashes 2004 to 2008

Crash year	Fatal crashes	Serious crashes	Minor crashes
2004	1	7	23
2005	1	10	32
2006	3	9	34
2007	2	6	39
2008	1	9	26
Total	8	41	154

Most of these crashes occurred when a driver lost control of their vehicle and either ran off the road or collided with another vehicle. 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.

The most common roadside hazards struck in injury crashes on Southland State Highways were fence (63), ditch (38) cliff of bank (33) and post or pole (22) from a total of 237 objects struck.

Main characteristics of injury straight road - loss of control or head on crashes 2004 to 2008

Crash characteristic	Percentage of crashes
Single vehicle	86
Alcohol	18
Excessive speed for the conditions	10
Road factors	26
Poor handling	31
Rural road	88
Wet or icy road	39
Night time	41

Age and gender of at fault drivers in injury crashes

Ages of drivers	Male	Female
15- 19 years *	31	16
20 - 24	22	14
25 - 29	15	13
30 - 39	13	13
40 - 49	16	6
50 - 59	10	5
60 - 69	12	10
70+	5	0
Total	124	77

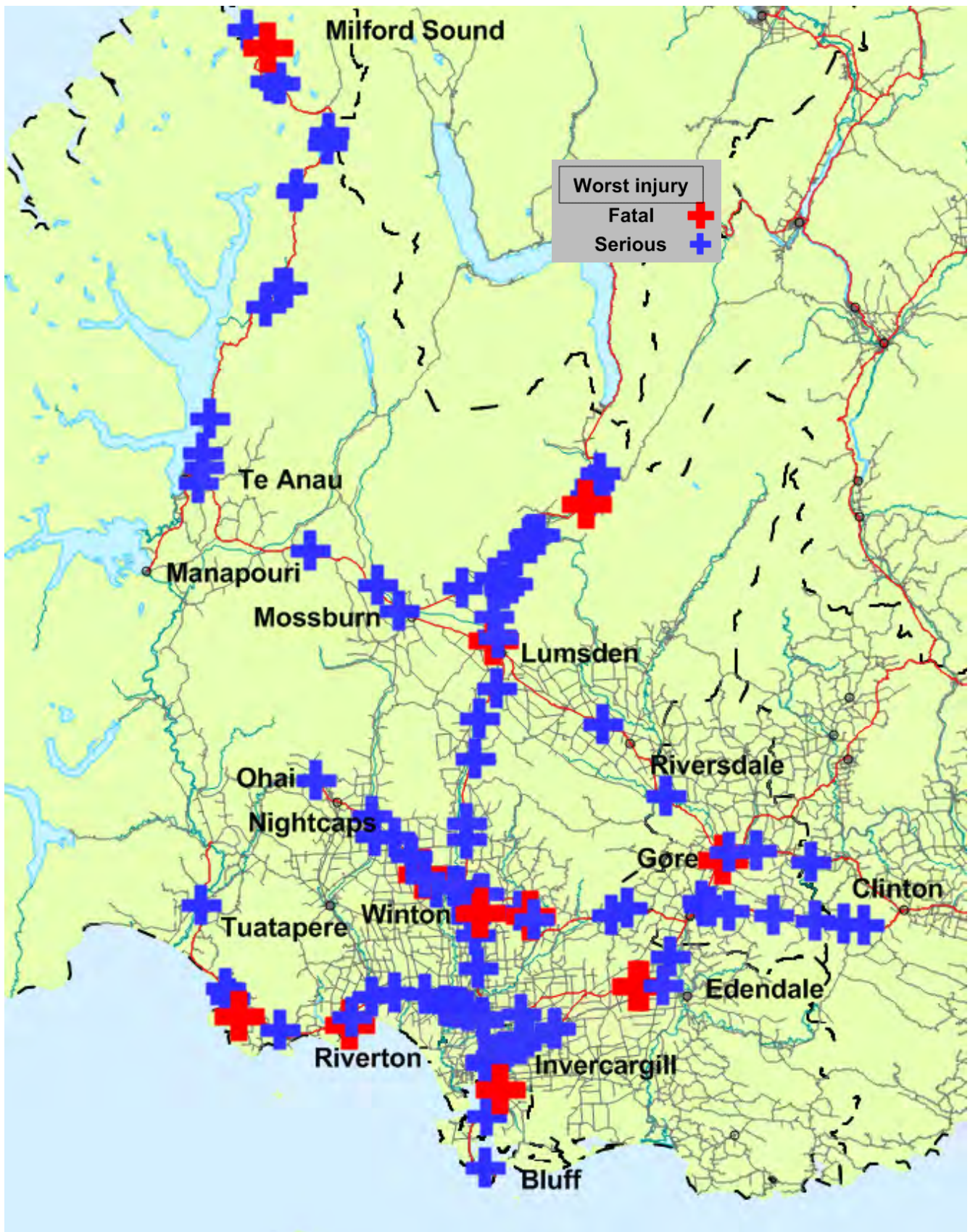
Injury straight road - loss of control or head on crashes 2004 to 2008

	2004	2005	2006	2007	2008
SH 1	9	17	10	8	10
SH 6	7	11	15	14	10
SH 93	2	0	1	0	0
SH 94	8	6	5	7	8
SH 95	0	0	0	1	0
SH 96	1	4	7	5	3
SH 97	0	0	1	1	0
SH 98	2	0	2	1	1
SH 99	2	5	5	10	4

Further information about the 203 injury straight road - loss of control or head on crashes on (2004 to 2008) on State Highways in Southland:

- 62 percent of at fault drivers were male
- Most common at fault driver age group 20 to 24 years (18% of at fault drivers)
- 27 percent involved fatigue
- Worst months July, October
- Worst day of week Sunday
- Worst time 3 pm to 6 pm

Fatal and serious injury crashes involving roadside hazards
Southland State Highways
2004 - 2008



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.

From 2004 to 2008 on State highways in Southland network area, "road factors" were a contributing factor in 24 percent of fatal and injury crashes. These 221 crashes resulted in 7 deaths, 49 people with serious injury and 301 with minor injury.

Additionally on State highways in Southland network area between 2004 and 2008 fifty five percent of all fatal and injury crashes involved a roadside hazard being struck, (501 injury crashes).

Road factor related injury crashes

Road type	2004	2005	2006	2007	2008
Rural	34	36	50	47	23
Urban	3	5	6	8	9
Total	37	41	56	55	32

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.

In the 501 injury crashes on State Highways in Southland network area where a roadside hazard was struck 12 people died, 131 received serious injuries and 631 minor injuries. In total 707 objects were struck.

Most common types of hazard struck (Injury crashes on Southland State Highways 2004 - 2008)

Type of hazard	Number of times hazard struck
Fence	159
Cliff / bank	105
Ditch	104
Tree	68
Over bank	59

Types of road factors in injury crashes

CAS factors 2004 to 2008	Number of occasions reported
Slippery (Rain)	83
Slippery (Ice, frost)	80
Loose material on seal	22
Slippery (Snow or hail)	14
Slippery (other)	14
Road surface condition	39
Visibility limited	15
Signs or signals	3
Markings	2

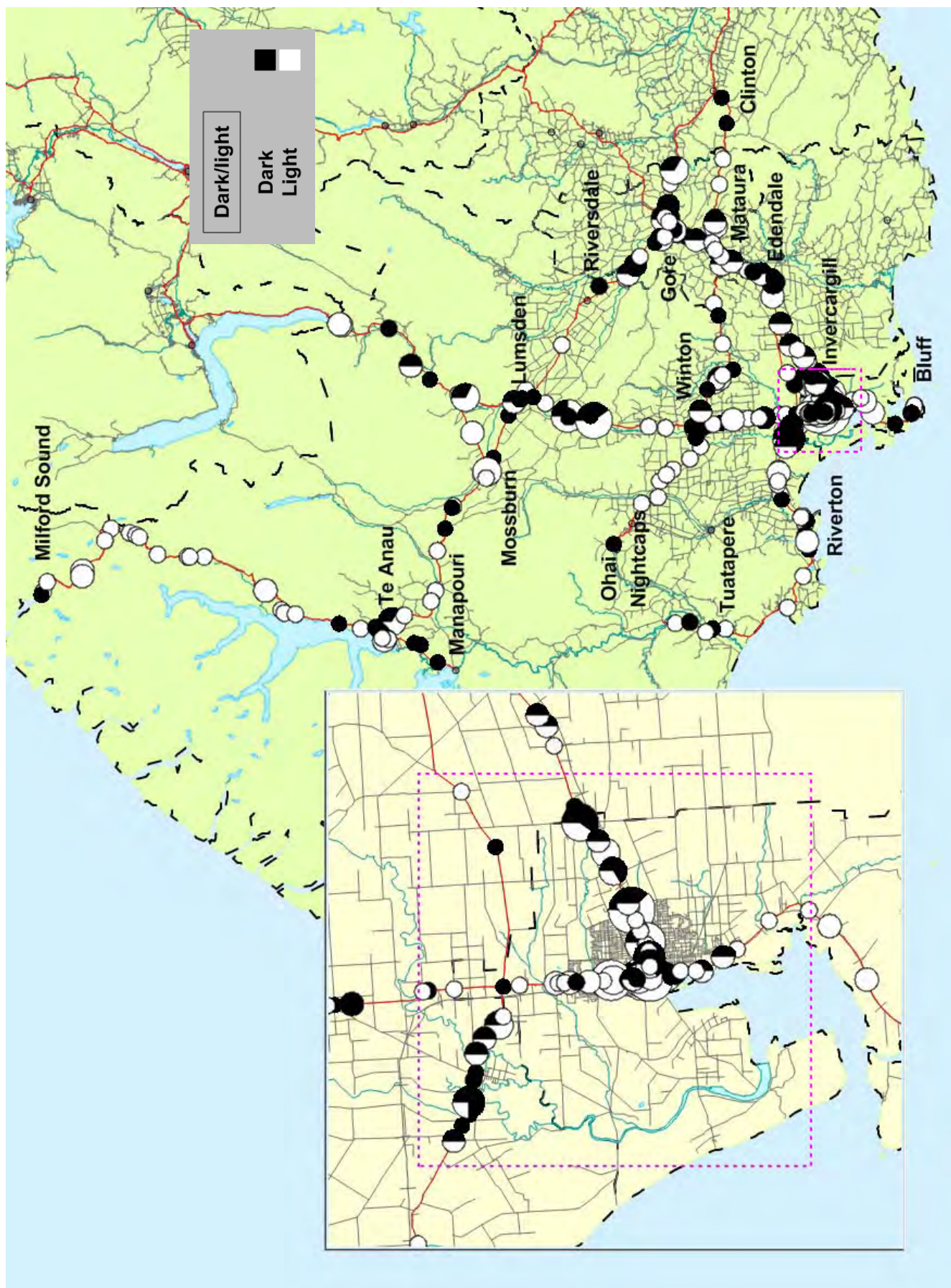
Object and road factor crashes by State Highway number 2004 to 2008

Highway number	Number of road factor crashes	Number of objects hit
SH 1	45	118
SH 6	54	118
SH 93	23	34
SH 94	60	116
SH 95	1	6
SH 96	18	50
SH 97	4	6
SH 98	2	7
SH 99	14	46

Further information about the 247 road factor related injury crashes on Southland State Highways (2004 to 2008):

- Most common crash type, bend - loss of control or head on
- 14 percent at intersections
- 86 percent wet or icy road
- 40 percent night time
- Worst month July
- Worst days, Saturday, Sunday
- Worst time 3 pm to 6 pm

Injury crashes involving young drivers Southland State Highways 2004 - 2008



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.

On State highways in Southland network area between 2004 and 2008, 46 percent of injury crashes involved young drivers. These 420 crashes resulted in 14 fatalities, 117 serious injuries and 531 minor injuries.

The total number of injury crashes involving young drivers has fluctuated over the last five years, although the total number in 2008 was the lowest in the last five years, largely due to a drop in the serious injury crashes.

Injury crashes involving young drivers Southland State highways 2004 - 2008

	Fatal	Serious	Minor	Total
2004	3	21	59	83
2005	3	19	76	98
2006	2	20	64	86
2007	2	20	55	77
2008	3	13	60	76
Total	13	93	314	420

Almost two thirds of the 443 young drivers in these crashes were males. Forty four percent had a learner or restricted licence. Just under half were in the 15 to 19 years age group.

Young drivers at fault in injury crashes on Southland State highways 2008 - 2008

Licence type	Male	Female	Total
Full	111	61	172
Learner	29	19	48
Restricted	76	69	145
Overseas	20	14	34
Never licensed	9	10	19
Disqualified	8	2	10
Other /unknown	10	5	15
Total	263	180	443

Injury crashes involving young drivers Southland State highways 2004 - 2008

Crash type or contributory cause	% of injury crashes
Alcohol	12
Speed	23
Failed to Give way or stop	20
Poor handling	29
Poor observation	45
Lost control - straight	20
Lost control - bend	32
Rear end / obstruction	20
Crossing / turning	20

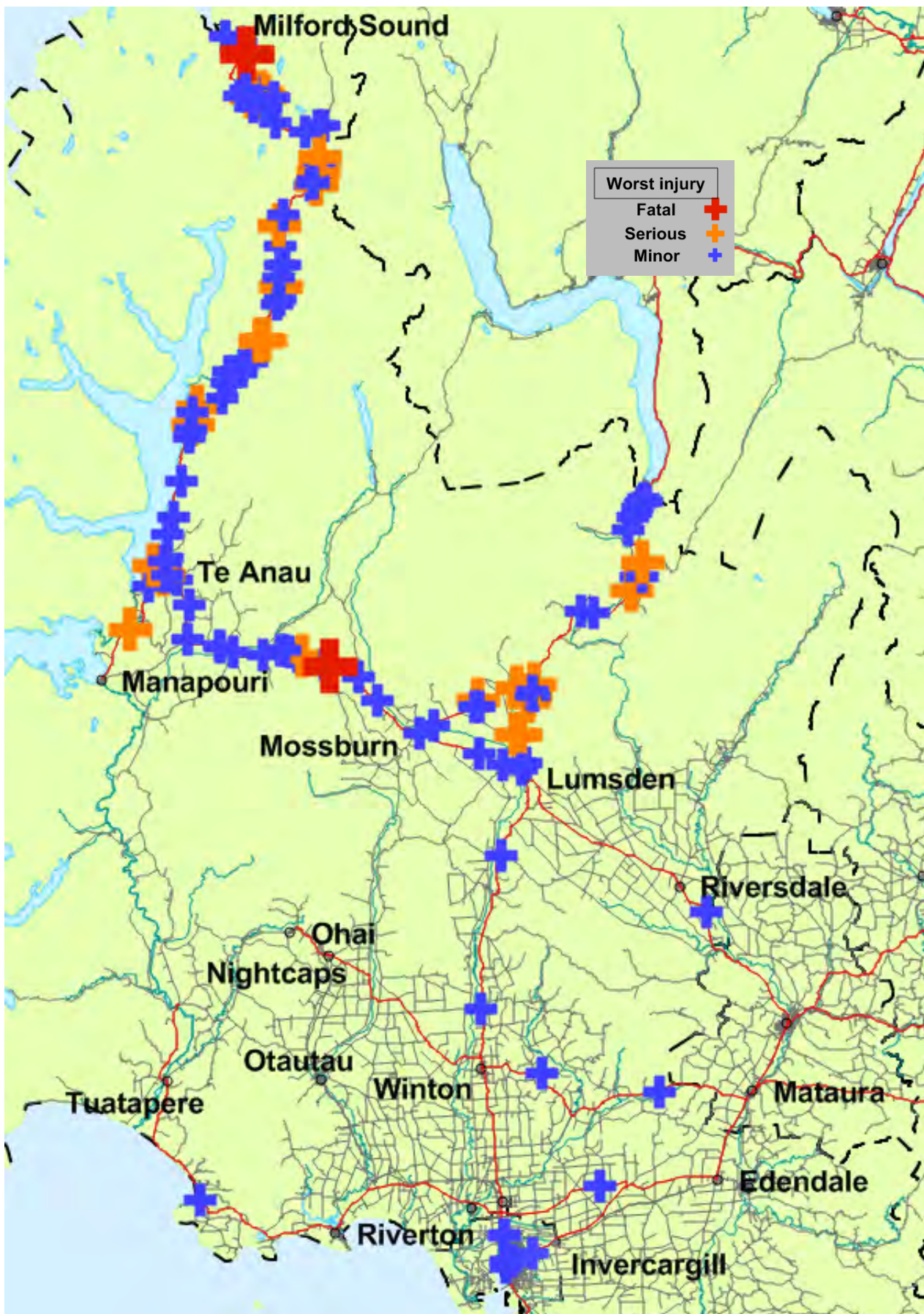
Casualties from crashes involving young drivers 2004 to 2008

Highway number	Deaths	Serious injury	Minor injury
SH 1	9	44	192
SH 6	2	31	150
SH 93	0	3	14
SH 94	2	15	84
SH 95	0	1	3
SH 96	0	10	27
SH 97	0	0	3
SH 98	0	1	1
SH 99	1	12	57

Further information about the 420 injury crashes involving young drivers on Southland State highways 2004 to 2008:

- 47 percent were single vehicle crashes
- 41 percent were on urban roads
- 32 percent at intersections
- 39 percent at night
- 38 percent in wet or icy conditions
- Worst month February
- Worst day of week Friday
- Worst time 3 pm to 6 pm

Injury crashes involving overseas drivers
Southland State Highways
2004 - 2008



Overseas drivers

On Southland State highways between 2004 and 2008 fourteen percent of injury crashes involved overseas drivers. These 128 crashes resulted in 2 deaths, 43 serious injuries and 188 minor injuries.

These drivers may include both tourists and New Zealand residents driving on an overseas licence.

Casualties from injury crashes on Southland State highways, involving overseas drivers

	2004	2005	2006	2007	2008
Fatal	0	0	0	1	1
Serious	5	13	11	10	4
Minor	22	30	63	36	37
Total	27	43	74	47	42

The number of casualties from crashes involving overseas drivers has fluctuated between a high of 74 in 2006 and a low of 27 in 2004. There is no apparent long term trend.

Injury crashes on Southland State highways involving overseas drivers 2004-2008

	2004	2005	2006	2007	2008
Rural	15	25	35	16	26
Urban	2	1	1	5	2
Total	17	26	36	21	28

More than nine in every ten crashes on Southland State highways that involved an overseas driver was on the rural area.

On Southland State highways, 57 percent of all crashes involving overseas drivers were Bend - loss of control or head on crashes. Straight road - loss of control or head on crashes accounted a further 23 percent of injury crashes.

Male drivers of all ages made up 72 percent of at-fault drivers.

Ages of drivers at fault in crashes involving overseas drivers

Ages	Male	Female	Total
15 to 19	2	1	3
20 to 24	17	13	30
25 to 29	26	6	32
30 to 39	22	9	31
40 to 49	8	0	8
50 to 59	10	4	14
60 to 69	9	3	12
70 +	0	0	0
Total	94	36	130

The common home locations of the overseas drivers were:

Asia	33
Europe	27
United Kingdom-	17,
Australia	13
North America	12

Further information about the 128 injury crashes involving overseas drivers on Southland State highways 2004 to 2008:

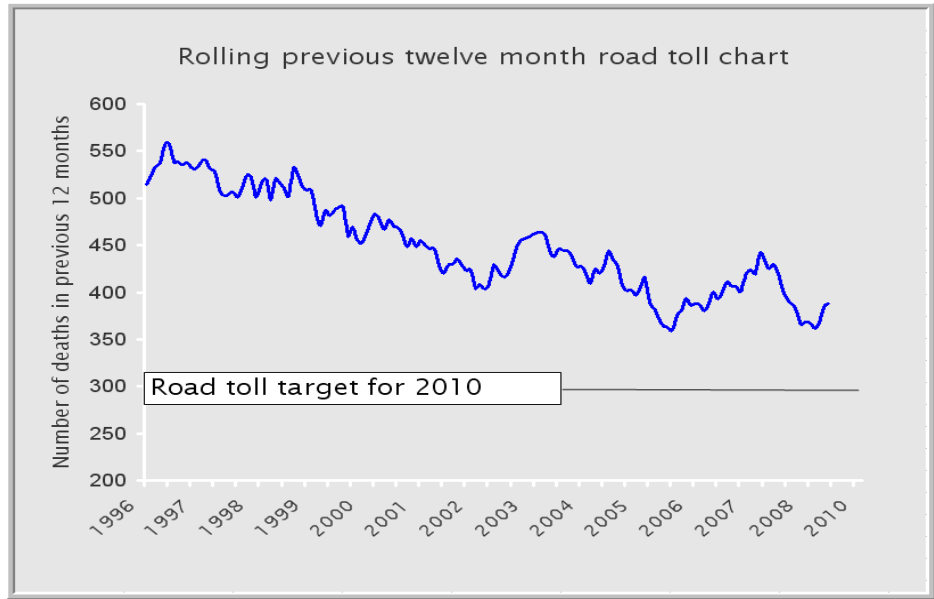
- Most common crash factors were:-
 - Poor handling
 - Poor observation
 - Too fast
 - Poor judgement
- 13 percent of crashes were at intersections
- 9 percent of crashes at night
- 34 percent in of crashes on wet or icy roads
- Worst month March
- Worst day of week Saturday
- Worst time 3 pm to 6 pm

The next ten years—moving beyond Road Safety 2010

In August this year the Ministry of Transport (MoT) will embark on a nationwide road safety consultation programme as it moves to formulate priorities for the next ten years.

The chart on the right illustrates the progress made during the life of the Road Safety 2010 strategy and while progress has been made it would seem unlikely that the target of 300 or fewer fatalities will be met.

Information will be published on the Ministry of Transport web site and we would encourage any person or group with an interest in road safety to watch the site carefully for developments.



Follow this link: <http://www.transport.govt.nz/ourwork/Land/landsafety/SaferJourneys-RoadSafetyStrategyto2020/>

Restraints

The Ministry of Transport conducts surveys of restraint use. Results are available for front, rear and child restraints although not all at a local authority level. The results of these surveys are available at the MoT website :<http://www.transport.govt.nz/research/safetybeltstatistics/>

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