Thames Coromandel District Road Safety Report 2005 to 2009





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Introduction and general information

The NZ Transport Agency provides information on road safety to its stakeholders and the public. It also has responsibility for promoting safety and sustainability in land transport, among a variety of other functions. This road safety report is an example of information supplied by the NZ Transport Agency.

This report helps identify road safety issues in Thames Coromandel District area ('the district') by presenting tables or graphs of:

- · numbers and trends in reported crashes and casualties
- characteristics and types of crashes and casualties
- factors contributing to crashes
- locations with bad crash records
- characteristics of crashes on council authority roads

The information is intended to assist road controlling authorities, the New Zealand Police and others in evaluating the safety performance of the road network in Thames Coromandel District. Comparison with other cities, districts or regions elsewhere in the country is included.

Researchers, students, and organisations with an interest in road safety will also find the information useful.

Source of crash information

This report uses data from the NZ Transport Agency's crash database. This database includes all crashes involving injury and non-injury for which Police reports have been completed and forwarded to the NZ Transport Agency. Mostly five-year data (2005 to 2009) has been used, but 10-year data (2000 to 2009) has been used to analyse trends.

Council authority peer groups

Traffic crash patterns and features for an area can depend on the traffic and roading characteristics of that area. The most useful comparisons are made with other areas or authorities with similar characteristics, rather than with the whole country. The data for the city is compared with a peer group of similar council authorities (Group D) along with data for all New Zealand.

The peer group used for comparison with Thames Coromandel District is Group D which consists of provincial towns and hinterland. (Population 20000 - 75000 and/or rural crashes greater than 55 percent). Council authorities included in this group are listed in Figure 1.4.





Definitions of urban and rural

Data has been separated for urban and rural (open) roads through this report because each has a distinctly different pattern of crashes. In this report urban roads are defined as all those with a speed limit of 70 km/h or less, however it should be noted that some locations which have been speed limit zoned might be more appropriately defined as rural but are included in urban zones.

Definition of statistically significant

A number of graphs include a comparison between the road controlling authority, all New Zealand and a similar peer group. These graphs can include an indication as to whether the difference is statistically significant. For the purposes of this report statistically significant means that a difference of this size is unlikely to be due to chance. Significance is noted at the 5% level (P < 0.05), this means that the observed result would occur by chance in only 1 in 20 similar situations.

Road user compliance data

The Ministry of Transport collects information on road user compliance with traffic law. This information includes speed surveys, occupant restraint use surveys and cycle helmet use surveys. Information about these surveys is available on Ministry of Transport web site.

The appropriate web addresses are as follows:

Speed Surveys http://www.transport.govt.nz/research/SpeedSurveys/

Safety belts http://www.transport.govt.nz/research/safetybeltstatistics/

Cycle helmets http://www.transport.govt.nz/research/cyclehelmets2009/

The information is also distributed quarterly in the Ministry of Transport publication Road safety progress.

The Ministry of Transport also conducts public attitude surveys. These have been undertaken annually since 1994. They evaluate attitudes to road safety issues, primarily alcohol-impaired driving and speed. Surveys are carried out in May and June of each year by trained interviewers who conduct interviews with respondents in their homes. The sample is chosen to be representative of the New Zealand adult population, and includes men and women aged 15 and over from towns, cities and rural areas throughout New Zealand.





The results of these surveys are available from:

http://www.transport.govt.nz/research/PublicAttitudestoRoadSafety-Survey/

General explanatory notes

- 1. Crash and casualty information in this report generally includes data for both council roads and state highways. Some tables and charts can separate this information, however figures 8.1–8.26 provide information for council roads only.
- 2. Crash and casualty rates are based on 2009 populations estimates updated from the 2006 census, traffic flows from the year 2009, and the average of five year crash data (2005–2009).
- 3. Traffic flows are based on Road Asset Maintenance and Management (RAMM) data from December 2009. As different road controlling authorities update flow data in RAMM at different times some data will be more up to date than other data, hence caution should be exercised when comparing traffic flow based crash rates in one authority with those of other authorities particularly as the traffic flow data (VKT) used in the calculations can not be considered definitive. Comparisons should be considered as indicative only.
- 4. With four to five categories of road for each council authority, some categories will only have short lengths of road. This may cause significant variation in the calculated crash and casualty rates.
- 5. The crash numbers include all those within the road controlling authority. The crash numbers used in the crash rate section can, however, vary slightly from the remainder of the document as only 'on road' crashes can be used. These are crashes on roads that have traffic volume information recorded. Crashes that occurred in car parks, reserves, beaches etc. are excluded.



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6. The severity of a crash is determined as the most severely injured casualty in the crash. Injury severity is classified as fatal, serious, or minor as follows:

Fatal: Injuries that result in death within 30 days of a crash.

Serious: Fractures, concussion, internal injuries, crushing, severe cuts and

lacerations, severe general shock necessitating medical treatment, and

any injury involving removal to and detention in hospital.

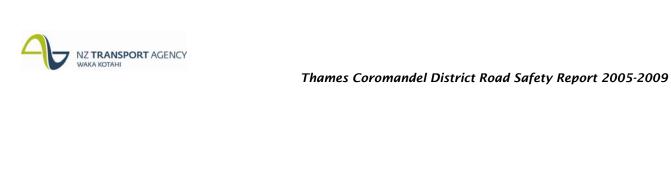
Minor: Injuries which are not serious but which require first aid, or cause

discomfort or pain to the person injured, eg sprains and bruises.

7. Ethnicity of road users involved in crashes can now be recorded on traffic crash reports, although some reports may not include this data. Figures 3.25 and 3.26 shows the ethnicity of casualties, where known. Ethnicity is divided into five different groups. Only data for 2005 to 2009 is available. The graph includes all casualties irrespective of culpability.

NOTE: Ethnicity data should be treated with caution as the data can be considered subjective and incomplete.

- 8. For the licence status grouping in Figures 3.27 and 3.28 the 'no/wrong licence' group includes drivers who have never held a licence or have an expired or wrong class licence. This graph includes all drivers irrespective of injury or culpability.
- 9. See appendix for detailed descriptions of:
 - crash movement types and crash movement groupings (for Figures 4.1–4.4)
 - grouping of factors contributing to crashes (for Figures 5.1–5.14)
- 10. Blackspot sites listed in Figures 9.1 and 9.3 are listed by the total cost of crashes at the site and are listed regardless of any remedial treatments. Site were initially selected on the basis of 3 reported crashes and then the sites listed were limited to those with a higher number of injury crashes and over a defined social cost, which is indicated on each figure.
- 11. Alarm crash sites in section 9 as Figures 9.4 to 9.6 are crash sites that have shown a statistically significant increase (at the 95 percent level of confidence) in reported crashes in 2009 compared with the previous five years (2004 to 2008). The sites are initially selected on the basis of 3 or more reported crashes at the sites. Sites are listed regardless of any recent remedial treatments and they may already be under investigation for treatment.





Crash Rates and Costs





Crash reporting rates

The ratio of 'reported serious injuries' can be assessed by comparing seriously injured casualty numbers from Police crash reports to hospital admissions, given that a serious injury is generally one requiring hospital attention.

Figure 1.1 below indicates the serious injury reporting rate for each region.

Figure 1.1 Reporting rate serious injuries to hospital admissions

Region	2005	2006	2007	2008	2009
Northland	30%	28%	34%	38%	27%
Auckland	1 7%	20%	16%	18%	18%
Waikato	40%	38%	50%	47%	40%
Bay of Plenty	32%	37%	38%	29%	27%
Gisborne	32%	26%	31%	28%	27%
Hawkes Bay	80%	75%	59%	68%	42%
Taranaki	55%	65%	79%	41%	36%
Manawatu-Wanganui	38%	34%	35%	36%	31%
Wellington	68%	61%	74%	55%	48%
Nelson-Marlborough	44%	52%	54%	50%	39%
West Coast	53%	55%	59%	53%	54%
Canterbury	47%	42%	49%	45%	43%
Otago	99%	85%	77%	69%	39%
Southland	78%	103%	73%	53%	39%
New Zealand	36%	35%	37%	35%	33%

This is the ratio of the number of persons with serious injuries in reported crashes divided by the number of persons admitted to hospital with serious injuries.

These variations in reporting rates need to be considered when viewing the trends in crashes and casualties shown in this report.

Note: These values should be considered indicative only.



Figure 1.2 Crashes per 100 million vehicle kilometres travelled

	Counci	l roads	State Hi	ighways
	Urban	Rural	Urban	Rural
Thames Coromandel District	32	27	27	25
Group D	35	27	24	17
All NZ	37	29	27	18

Figure 1.3 Casualties per 100 million vehicle kilometres travelled

	Counci	l roads	State Hi	ghways
	Urban	Rural	Urban	Rural
Thames Coromandel District	47	35	45	34
Group D	45	40	34	27
All NZ	46	42	36	26



Figure 1.4 Peer group crash and casualty rates

Group D

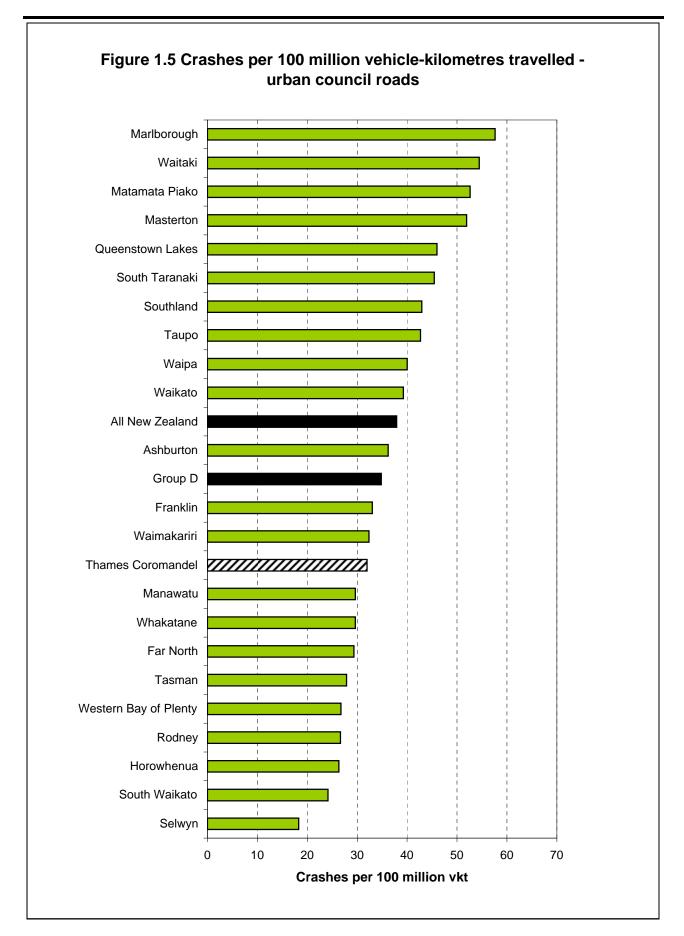
		Crashes per			Casualties per							
	L -	100 million vehicle				100 million vehicle					_	hes
	latic age)		kilometres travelled		kilometres travelled			tior	cras			
	opu		uncil ads	Sta Highv		opu		ıncil	State Highways		ula	of rural crashes
	0 Pe		aus		ways	00 Pe	roa	lus		ways	Рор	ı.
	10,000 Population (5 year average)	Urban	Rural	Urban	Rural	10,000 Population (5 year average)	Urban	Rural	Urban	Rural	2009 Population	% of
City or District name	<u> </u>	Url	Ru	Url	Ru		Url	Ru	Url	Ru	20	6\
Ashburton	21	36	16	17	7	29	47	23	24	10	29100	56
Far North	35	29	34	26	26	54	44	52	35	42	58000	84
Franklin	31	33	35	0	7	44	43	51	0	11	64200	77
Horowhenua	30	26	14	35	20	43	30	22	47	31	30600	63
Manawatu	31	30	24	34	15	45	38	36	46	23	29500	79
Marlborough	27	58	25	32	19	37	71	41	41	27	45000	57
Masterton	30	52	26	44	25	39	66	35	58	31	23300	37
Matamata Piako	44	53	32	24	14	64	68	44	31	22	23300	79
Queenstown Lakes	22	46	37	18	24	33	67	60	23	36	51500	65
Rodney	28	27	28	24	14	39	36	38	36	21	98100	69
Selwyn	25	18	19	7	12	35	21	27	9	19	38600	90
South Taranaki	26	45	25	16	19	39	55	39	26	28	26800	73
South Waikato	31	24	28	19	19	49	31	42	34	32	22800	80
Southland	57	43	32	41	25	90	62	48	60	42	29300	90
Tasman	25	28	21	21	23	35	34	30	26	34	46800	76
Taupo	42	43	26	21	18	62	53	38	27	30	33600	69
Thames Coromandel	30	32	27	27	25	44	47	35	45	34	26800	63
Waikato	42	39	28	16	17	61	46	37	24	26	47600	83
Waimakariri	17	32	30	9	10	24	44	43	11	14	46900	71
Waipa	28	40	27	27	15	39	52	37	35	23	45100	67
Waitaki	45	54	31	51	17	64	67	42	62	29	20700	60
Western Bay of Plenty	26	27	25	21	16	39	32	34	33	25	44800	84
Whakatane	26	30	26	24	18	40	40	44	33	29	34300	69
						•						_
Group D	30	35	27	24	17	44	45	40	33	27	916700	73
All New Zealand	26	38	29	28	18	36	48	42	38	26	4331000	41

Group D: Provincial towns and hinterland. (Population 20000-75000 and/or rural crashes greater than 55 percent).

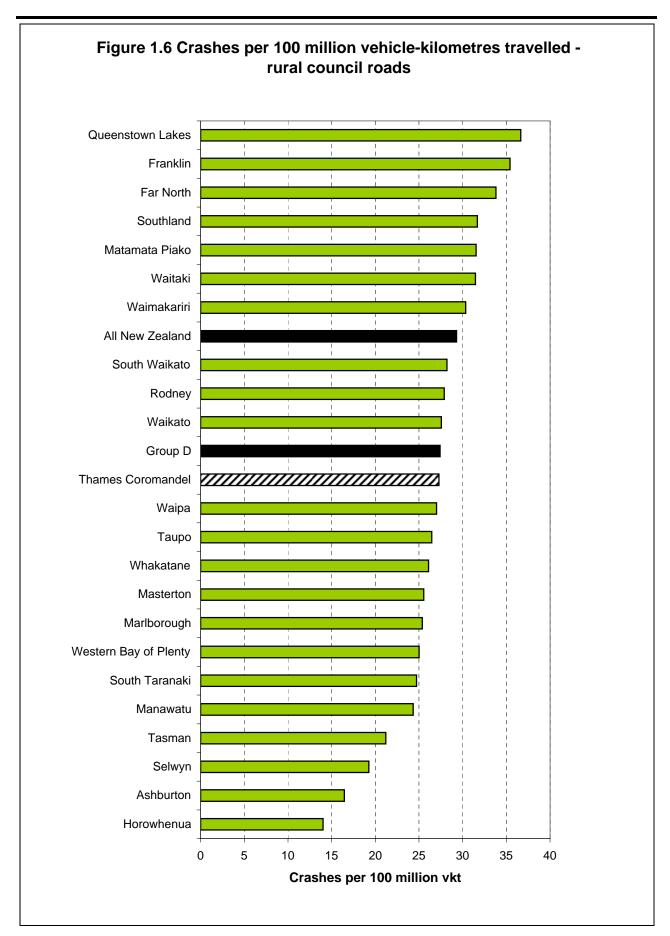
Crashes and casualties per 100 million VKT are based on five years of reported injury on-road crash data (2005-2009) and December 2009 VKT estimates.

Crashes and casualties per 10,000 population are based on five year average crash data (2005-2009) and Statistics NZ 2009 population estimates.

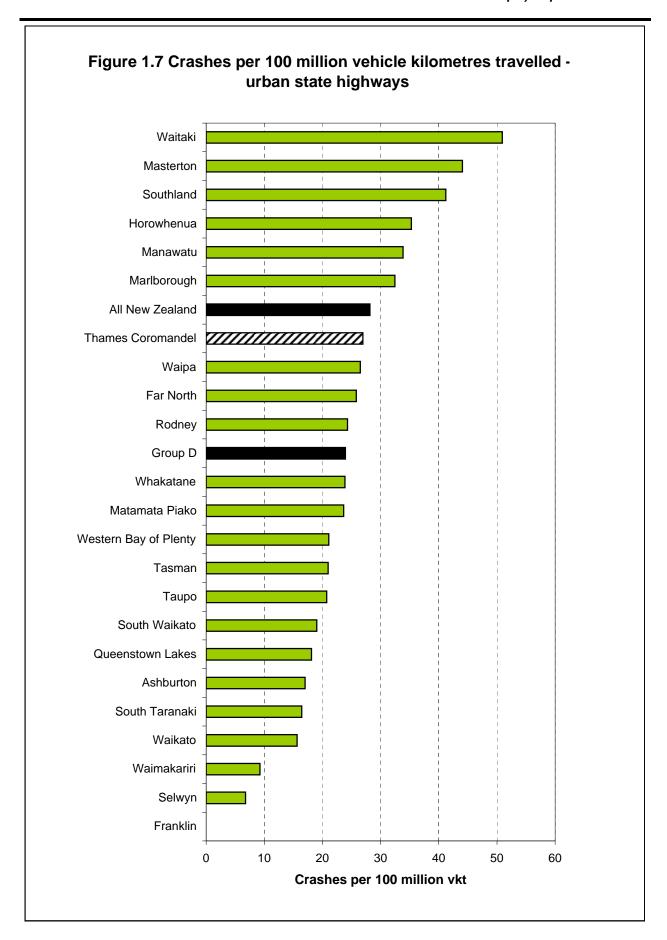




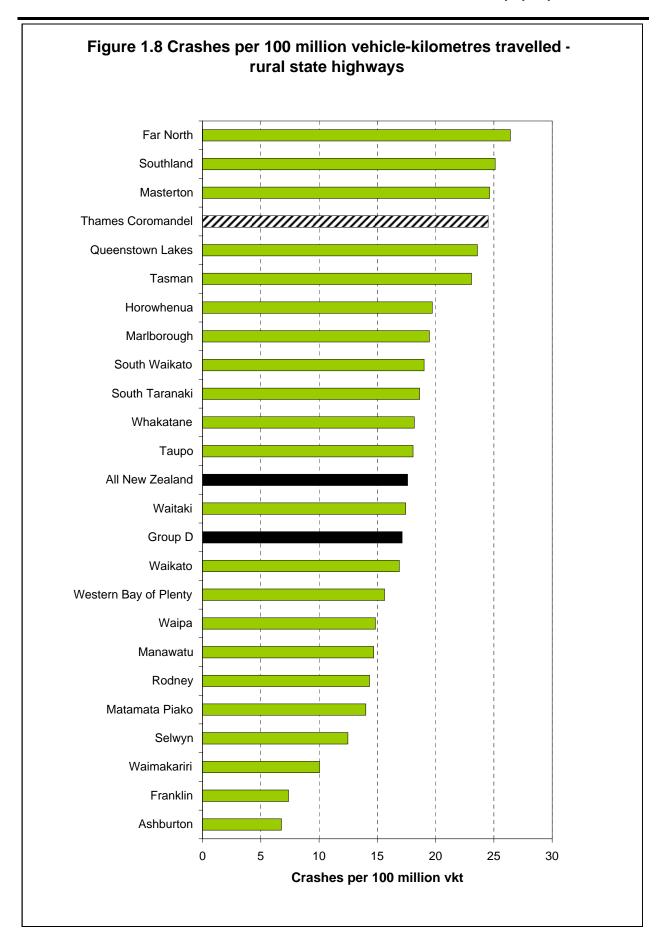






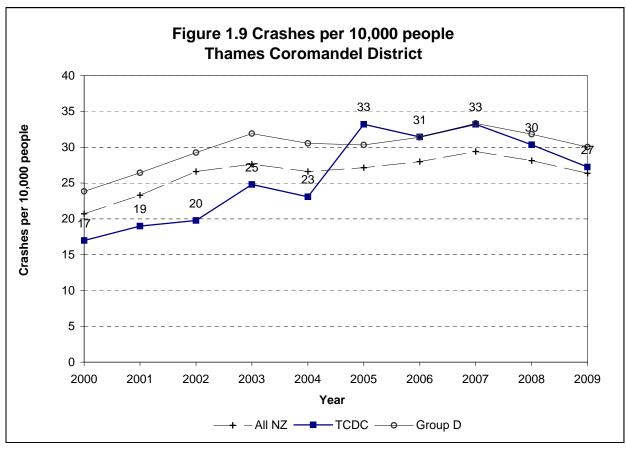












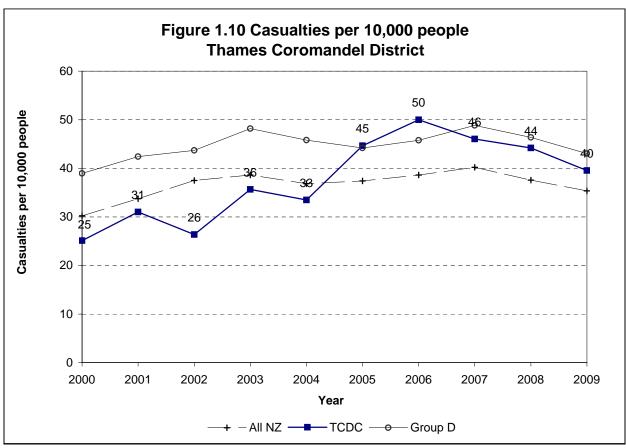




Figure 1.11 Social cost of crashes in Thames Coromandel District in 2009

		Thames Coromandel	New Zealand
Council roads	urban	\$3.60	\$1,607.40
Council roads	rural	\$1.72	\$909.43
State Highways	urban	\$3.37	\$299.76
State nighways	rural	\$21.56	\$1,487.35
Total		\$30.25	\$4,303.94

Note: Crash costs are in \$ millions

The social costs of a road crash and the associated injuries include a number of different elements:

- · Loss of life and life quality
- Loss of output due to temporary incapacitation
- Medical costs
- · Legal costs
- · Property damage costs

The average value of a loss of life due to a road crash is estimated by the amount of money the New Zealand population would be willing to pay for a safety improvement that would result in the expected avoidance of one premature death. This is the willingness to pay based value of statistical life or VOSL. The VOSL was established at \$2 million in 1991. This has been indexed to the average hourly earnings (ordinary time) to express the value in current dollars. The updated VOSL is \$3.5 million (in June 2009 dollars). Based on several international and New Zealand studies on VOSL, the average loss of life quality for permanent impairments due to a serious and a minor injury were estimated to be 10% and 0.4% of the VOSL respectively.

Crash rates can vary due to reporting rates. These are adjusted on a regional basis in this report by comparing with hospitalisation rates.

The other social cost components are estimated based on a number of studies conducted during the early to mid-1990s and are updated for price changes by indexing to an appropriate price index.

For a detail discussion on this, please refer to 'The social cost of road crashes and injuries: June 2009 update', available at the Ministry of Transport's website:

http://www.transport.govt.nz/assets/NewPDFs/NewFolder/Social-Cost-June-2009-update-final.pdf

The average social cost per reported crash (in June 2009 dollars) are estimated at:

Rural fatal crash
Rural serious crash
Rural minor crash
Urban fatal crash
Urban serious crash
Urban minor crash
Urban minor crash
Urban minor crash
Urban minor crash

These values include an allowance for non-reported injury crashes, and the totals in Fig. 1.11 also include an allowance for non-injury crashes.





Crash Counts





Figure 2.1: Crash numbers and severity 2005 to 2009 - whole District

	2005	2006	2007	2008	2009	Total	%	Group D
Fatal crashes	5	7	2	3	3	20	5%	5%
Serious crashes	14	24	20	13	11	82	20%	22%
Minor crashes	68	52	66	65	59	310	75%	72%
Total injury crashes	87	83	88	81	73	412	100%	100%
Non-injury crashes	163	148	155	147	122	735		_

Figure 2.2: Crash numbers and severity 2005 to 2009 - urban roads

	2005	2006	2007	2008	2009	Total	%	Group D
Fatal crashes	2	2	1	1	0	6	4%	3%
Serious crashes	4	10	7	2	5	28	18%	17%
Minor crashes	32	17	20	29	24	122	78%	80%
Total injury crashes	38	29	28	32	29	156	100%	100%
Non-injury crashes	72	68	71	56	63	330		

Figure 2.3: Crash numbers and severity 2005 to 2009 - rural roads

	2005	2006	2007	2008	2009	Total	%	Group D
Fatal crashes	3	5	1	2	3	14	5%	6%
Serious crashes	10	14	13	11	6	54	21%	24%
Minor crashes	36	35	46	36	35	188	73%	70%
Total injury crashes	49	54	60	49	44	256	100%	100%
Non-injury crashes	91	80	84	91	59	405		

Figure 2.4: Casualty numbers and severity 2005 to 2009 - whole District

	2005	2006	2007	2008	2009	Total	%	Group D
Fatal casualties	5	8	2	3	3	21	4%	4%
Serious casualties	17	29	22	20	14	102	17%	20%
Minor casualties	95	95	98	95	89	472	79%	76%
Total casualties	117	132	122	118	106	595	100%	100%

Figure 2.5: Casualty numbers and severity 2005 to 2009 - urban roads

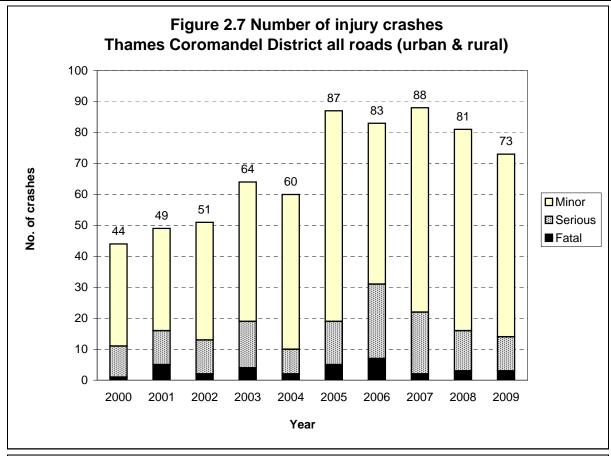
	2005	2006	2007	2008	2009	Total	%	Group D
Fatal casualties	2	2	1	1	0	6	2%	2%
Serious casualties	4	11	7	9	7	38	16%	16%
Minor casualties	48	37	29	46	38	198	82%	82%
Total casualties	54	50	37	56	45	242	100%	100%

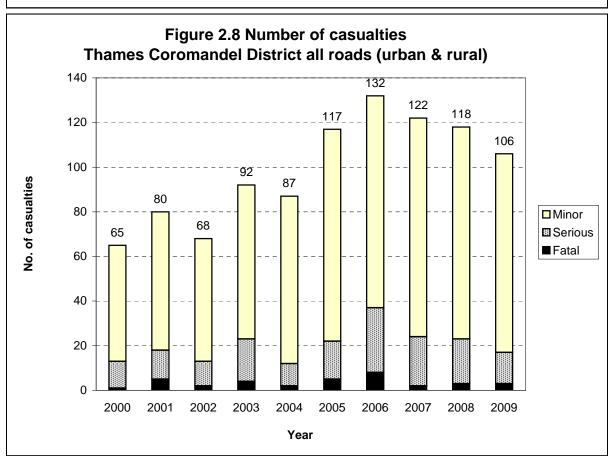
Figure 2.6: Casualty numbers and severity 2005 to 2009 - rural roads

	2005	2006	2007	2008	2009	Total	%	Group D
Fatal casualties	3	6	1	2	3	15	4%	5%
Serious casualties	13	18	15	11	7	64	18%	21%
Minor casualties	47	58	69	49	51	274	78%	74%
Total casualties	63	82	85	62	61	353	100%	100%

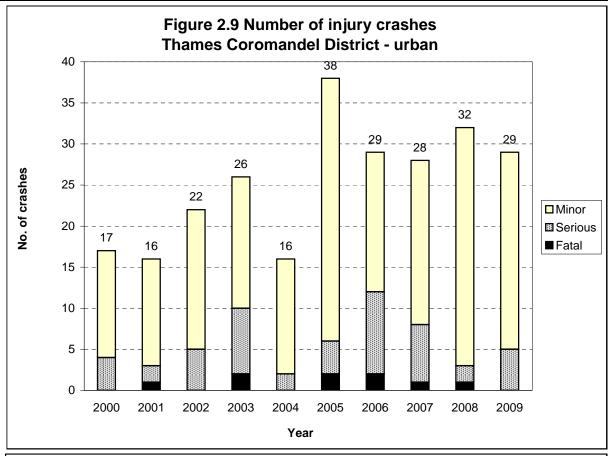
New Zealand Government

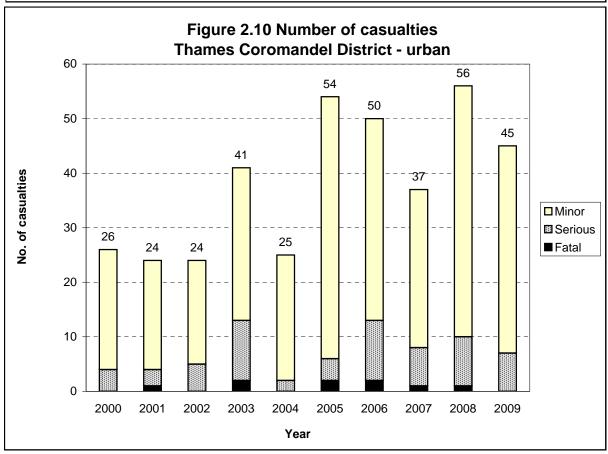




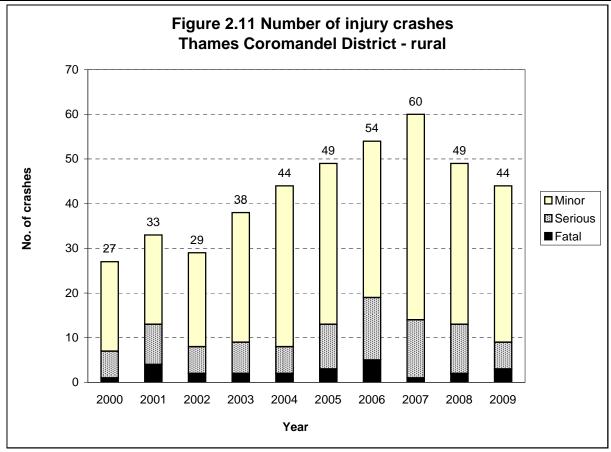


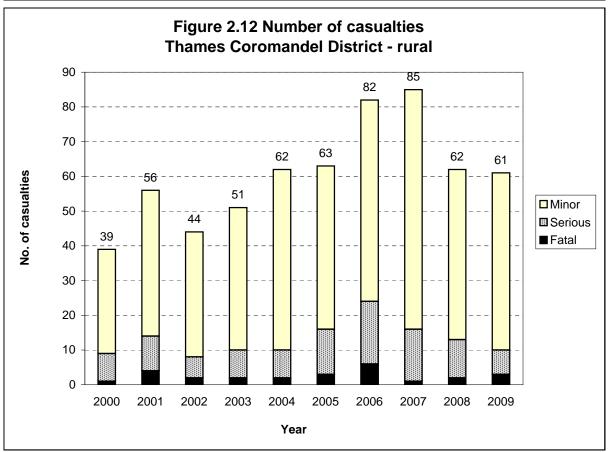




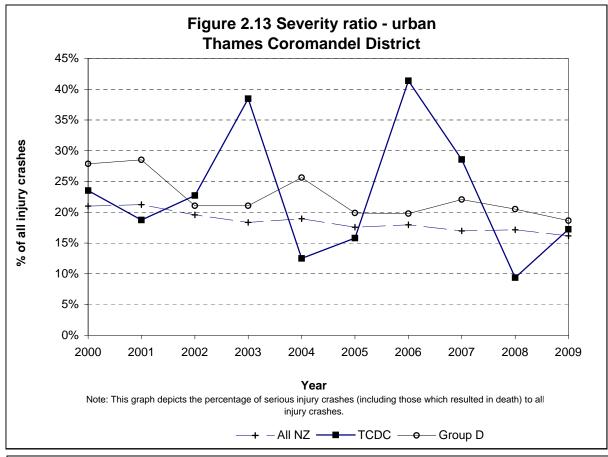


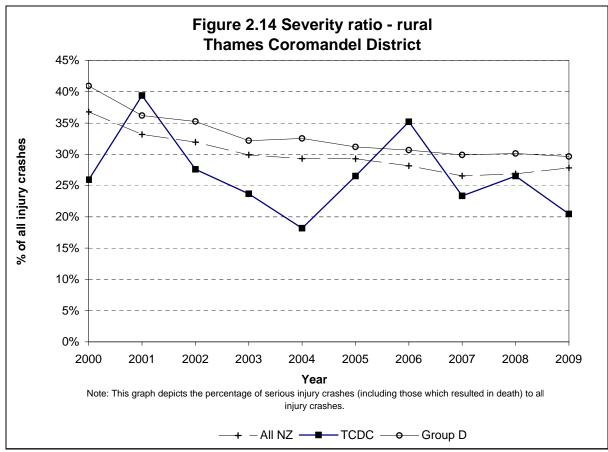












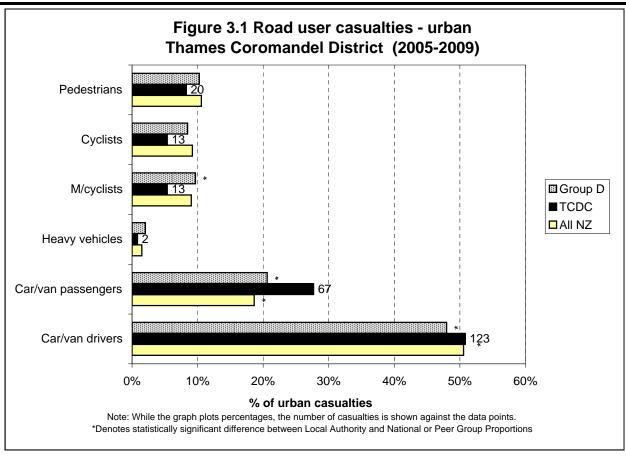


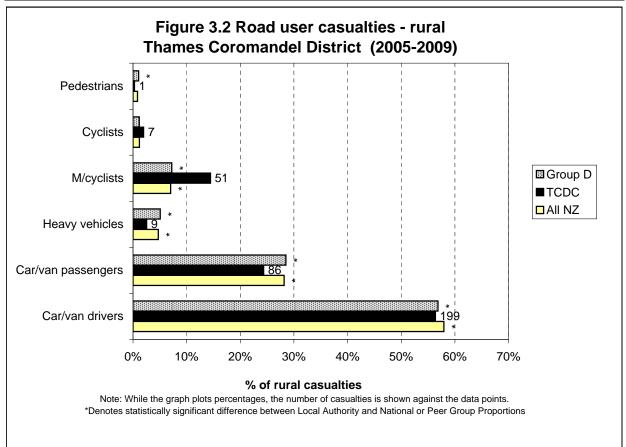


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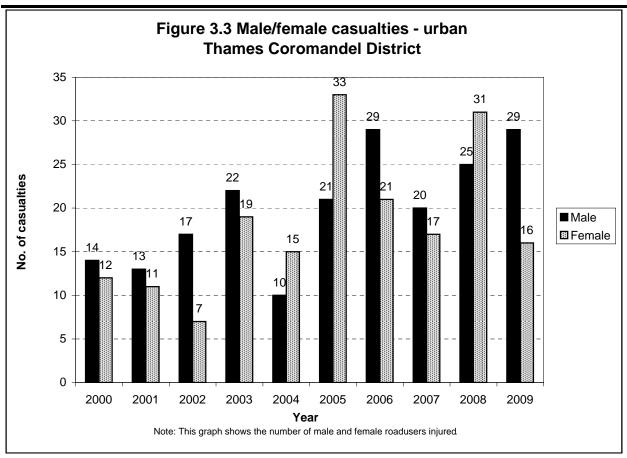


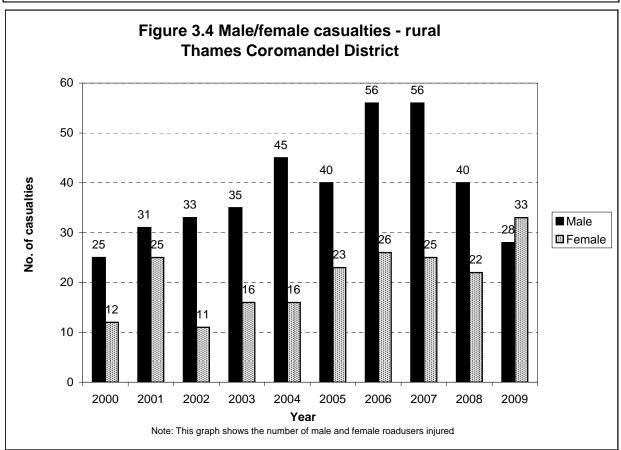




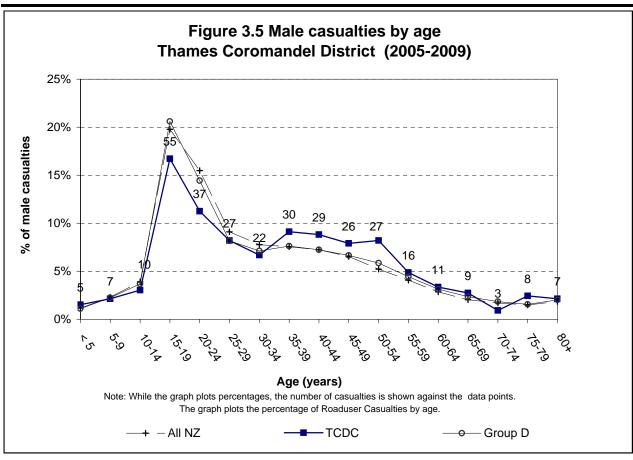


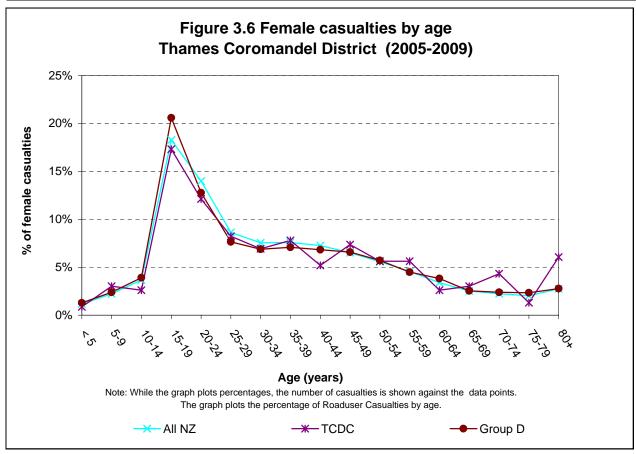




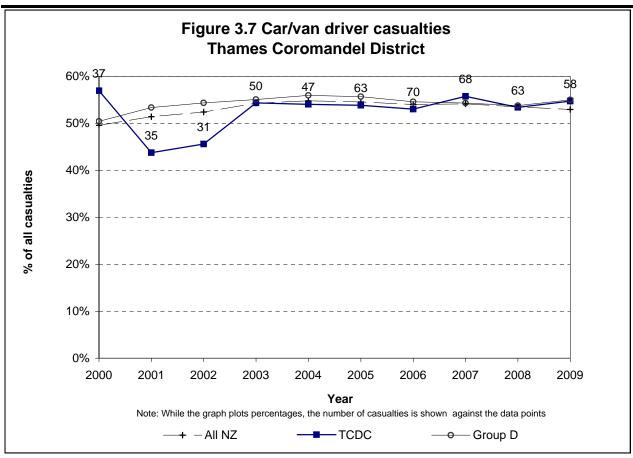


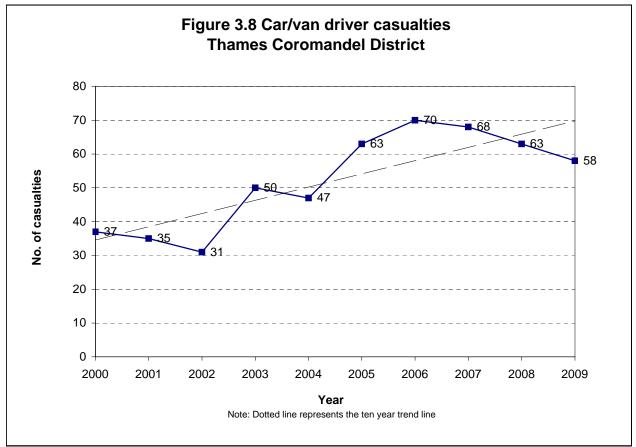




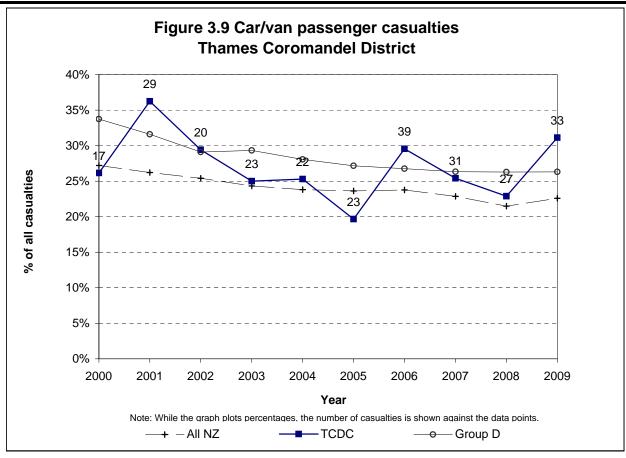


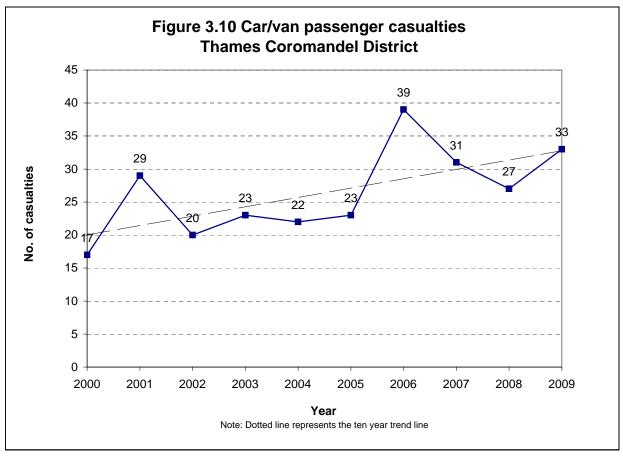




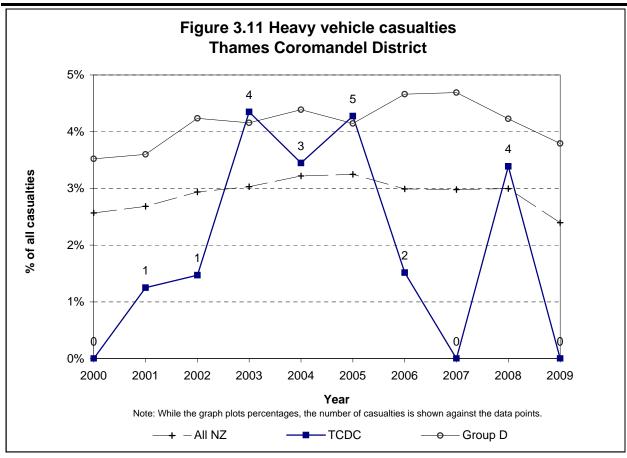


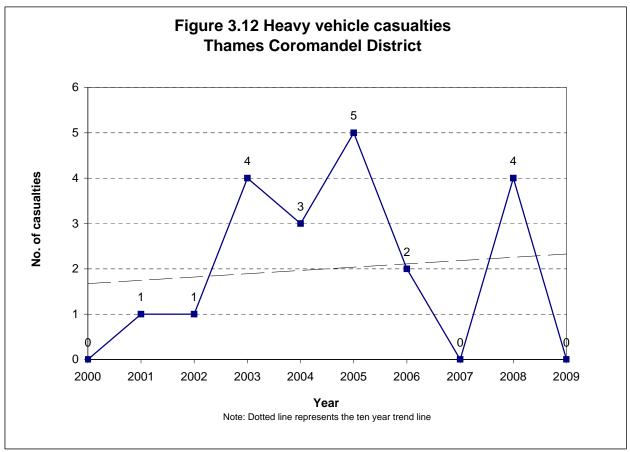




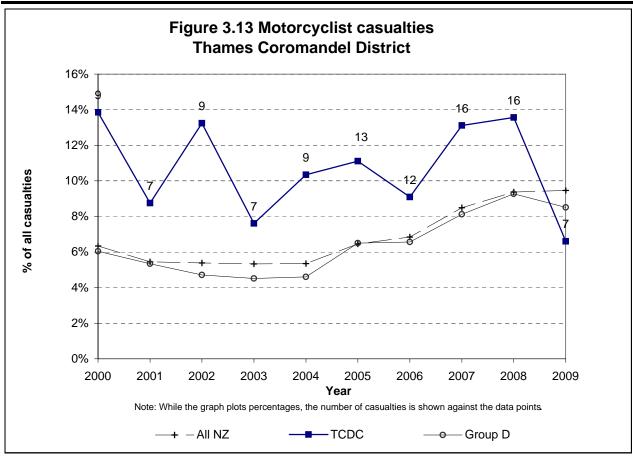


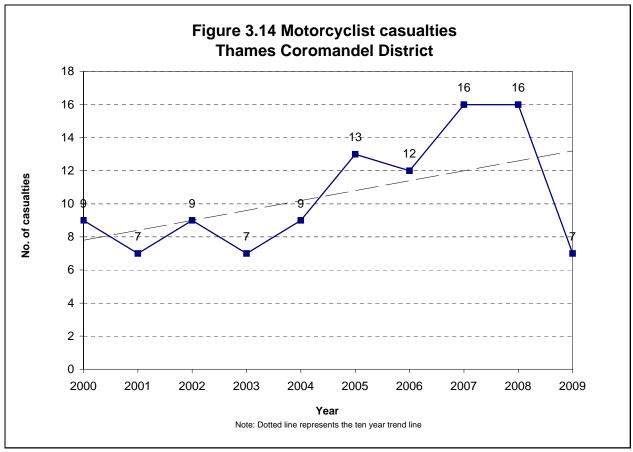




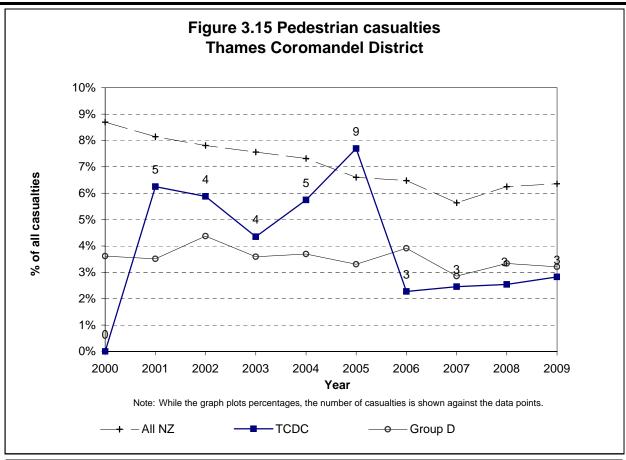


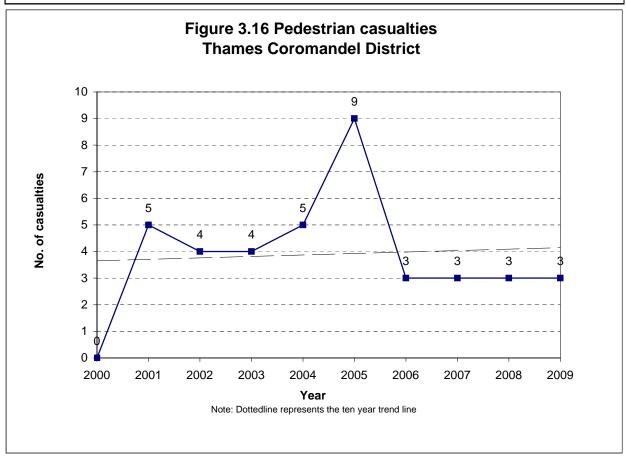




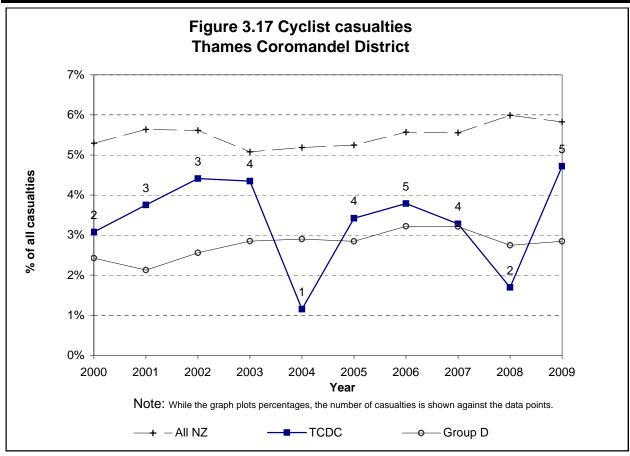


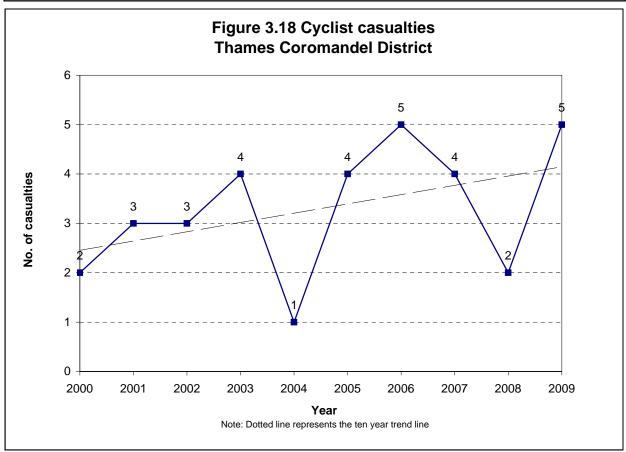




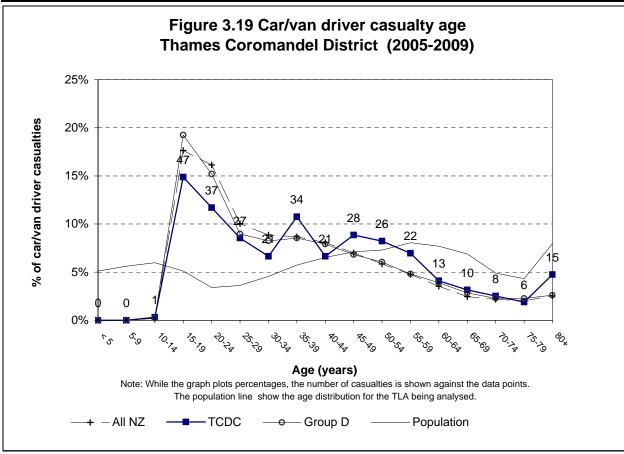


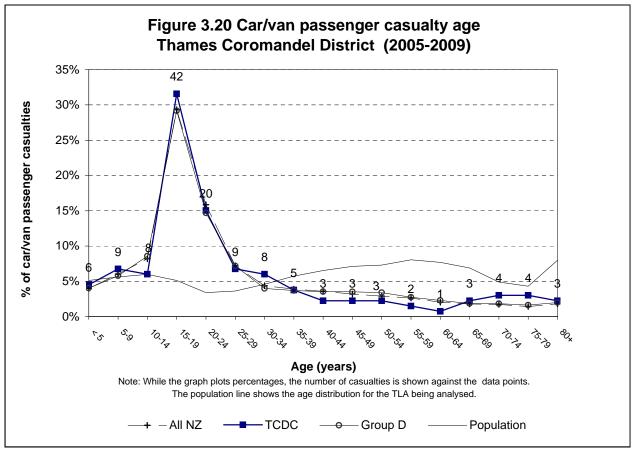




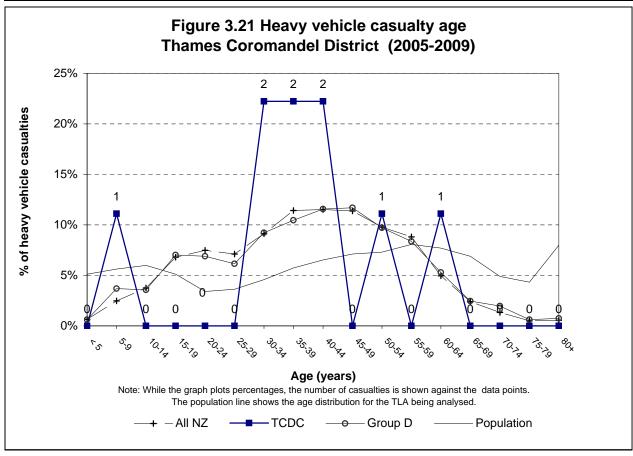


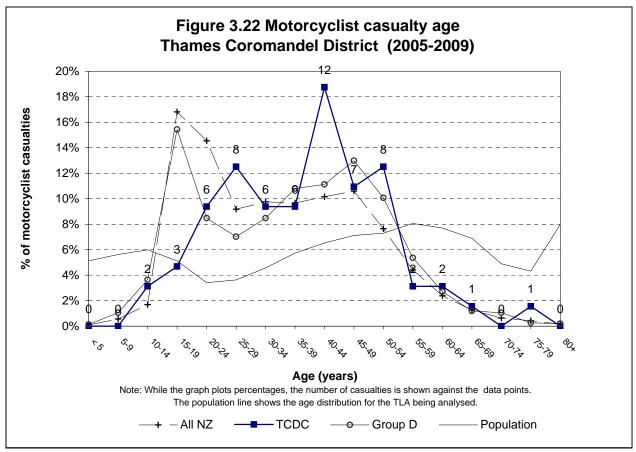




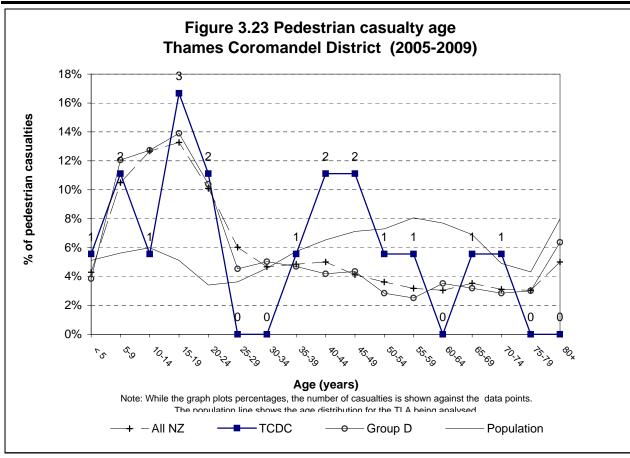


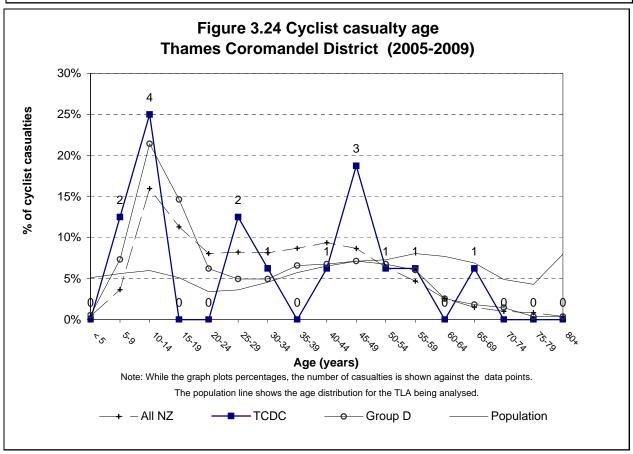




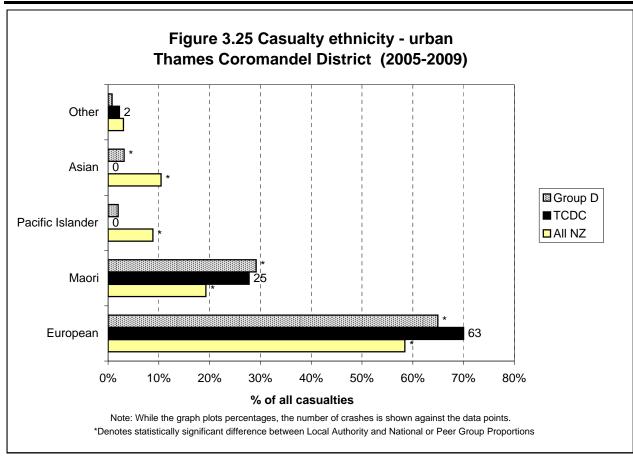


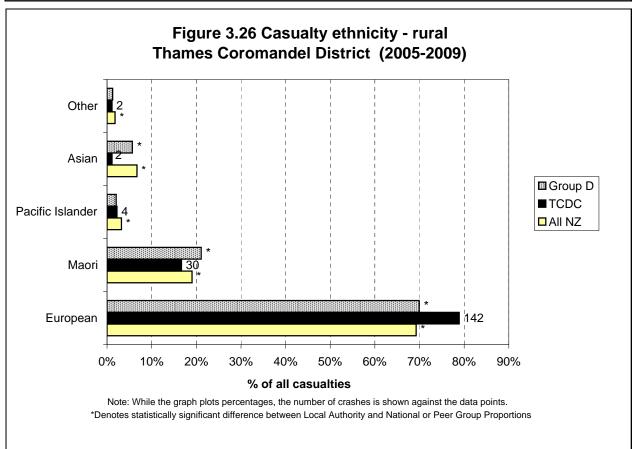




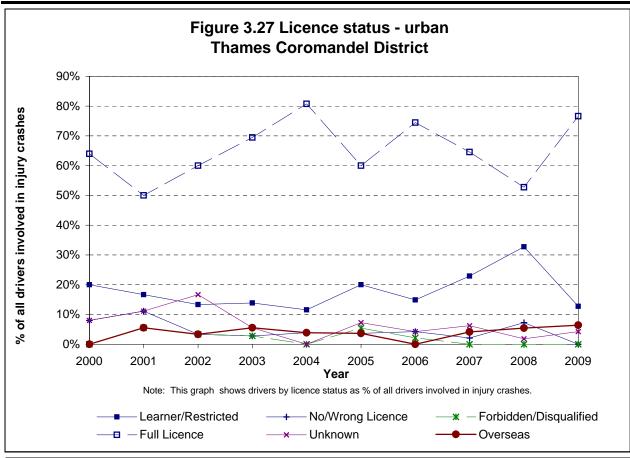


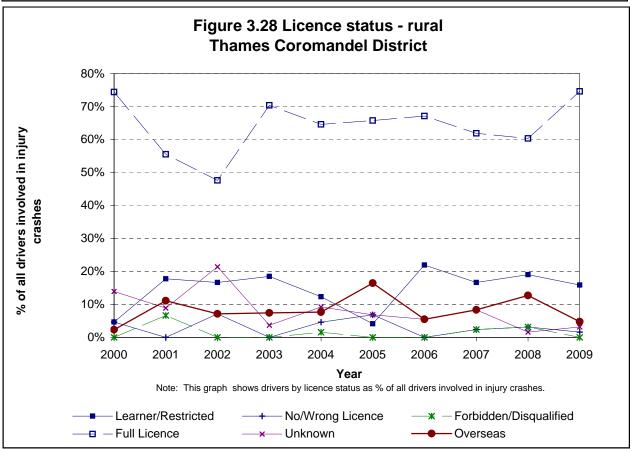










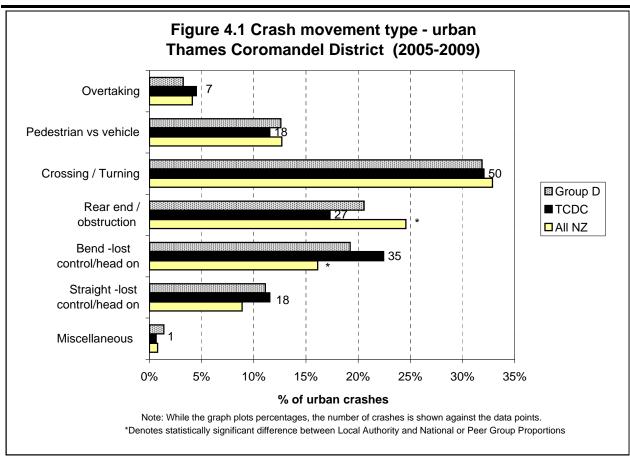


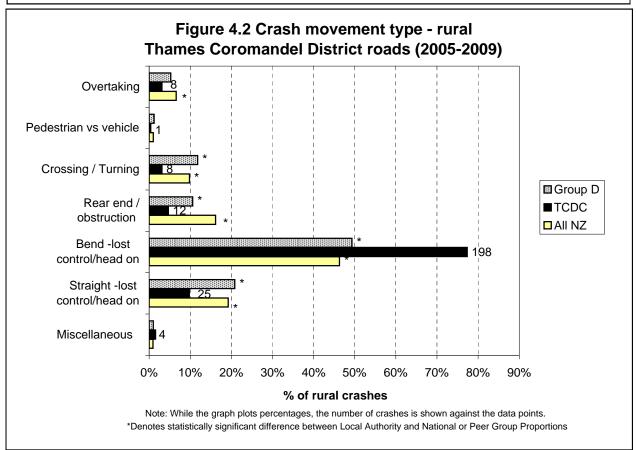


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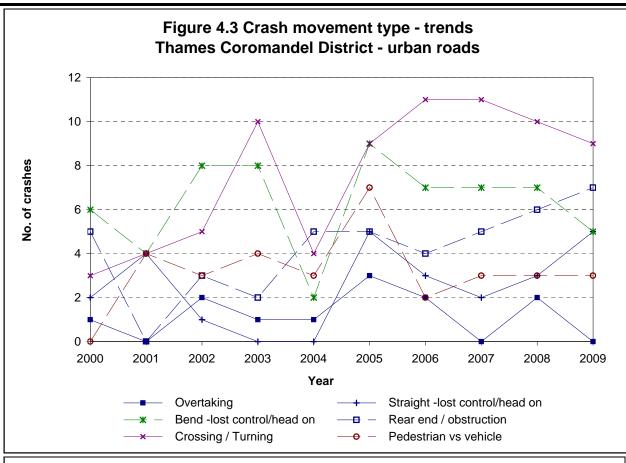


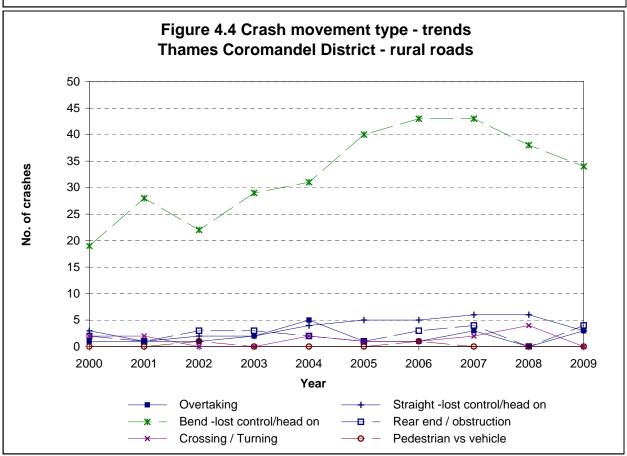




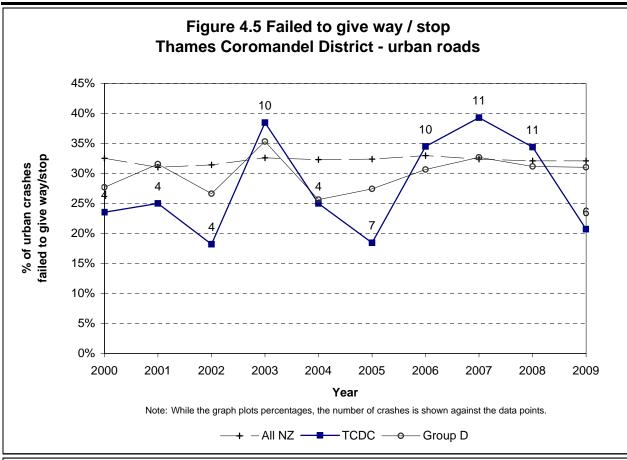


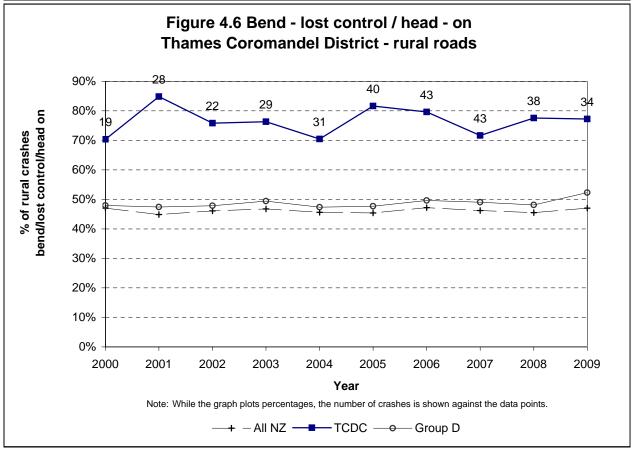












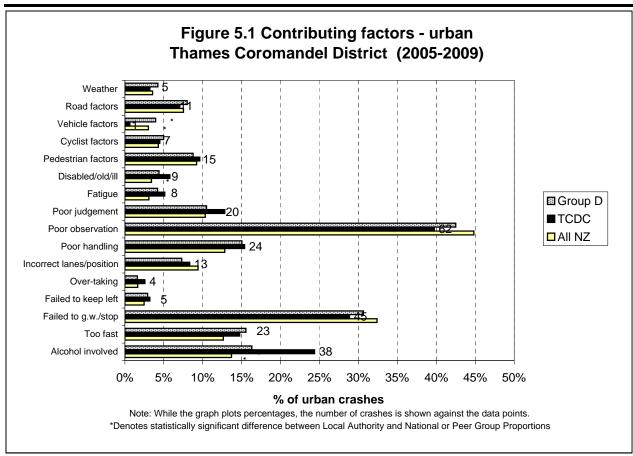


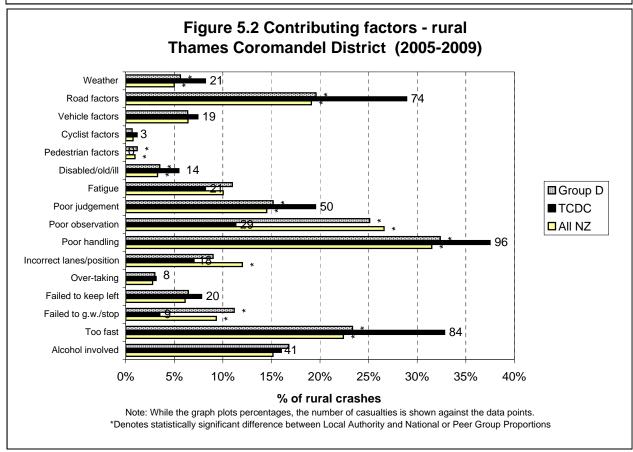


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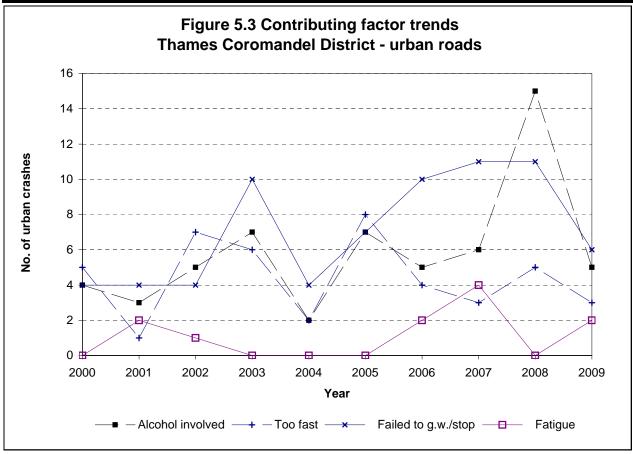


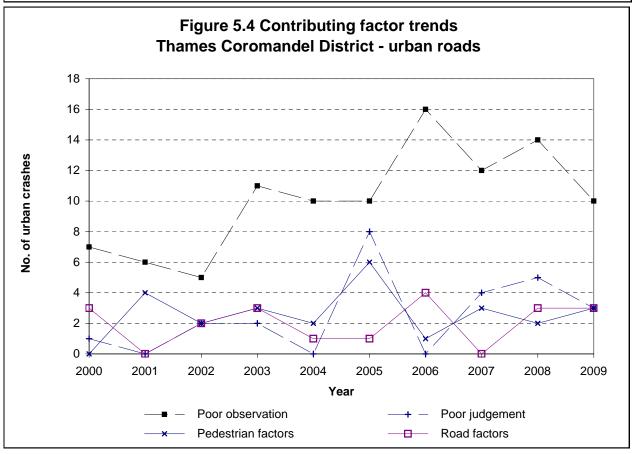




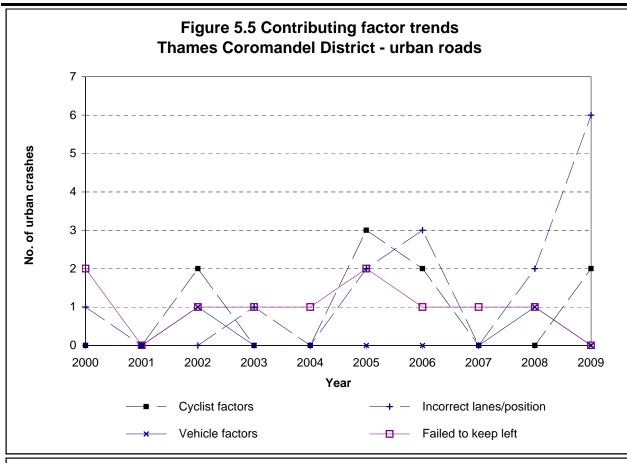


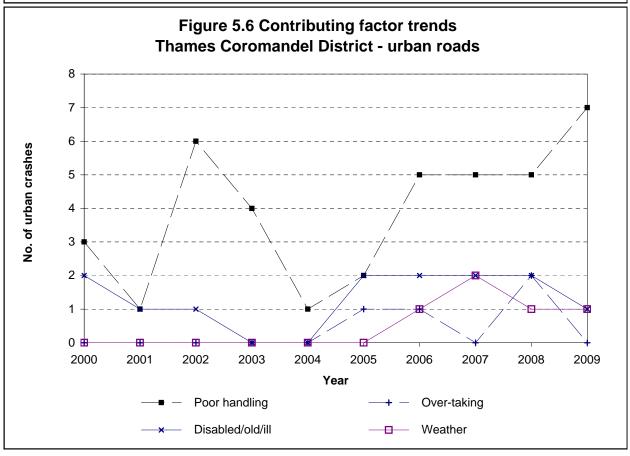




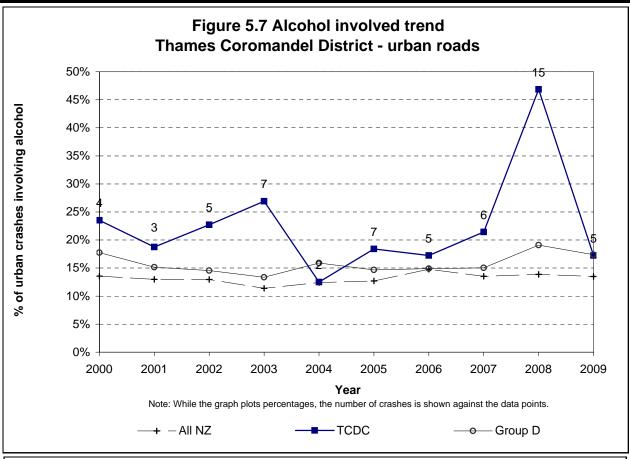


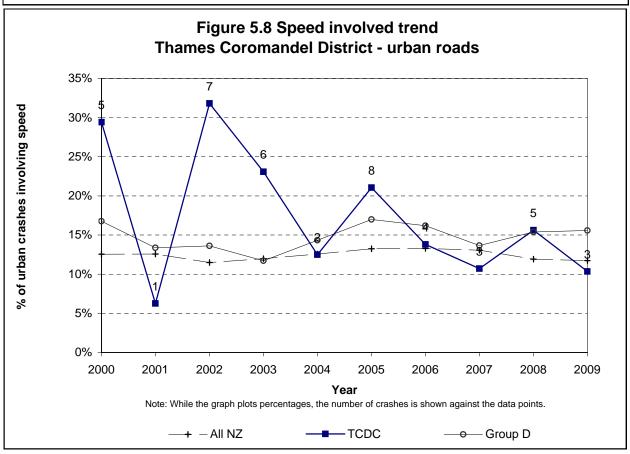




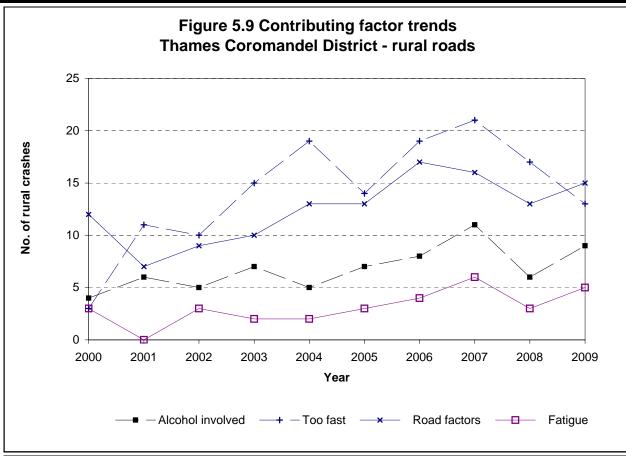


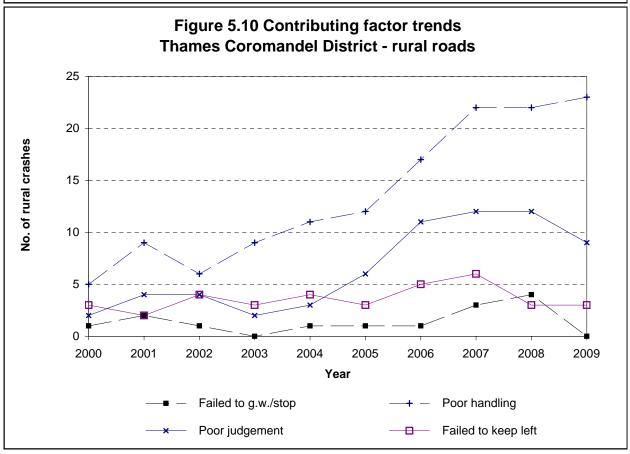




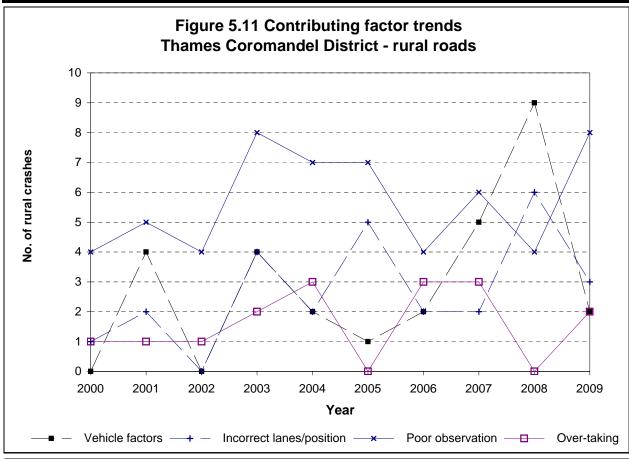


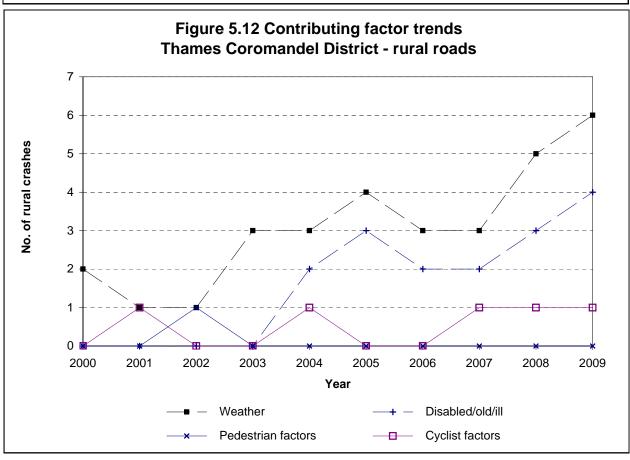




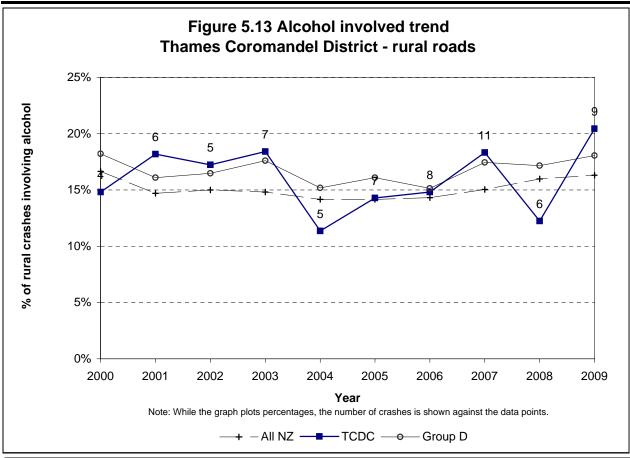


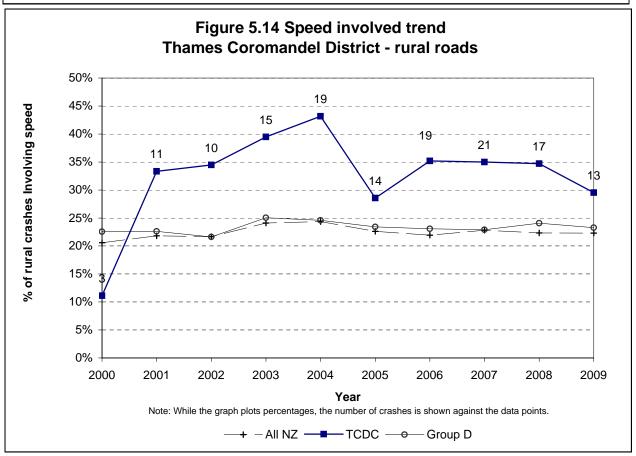












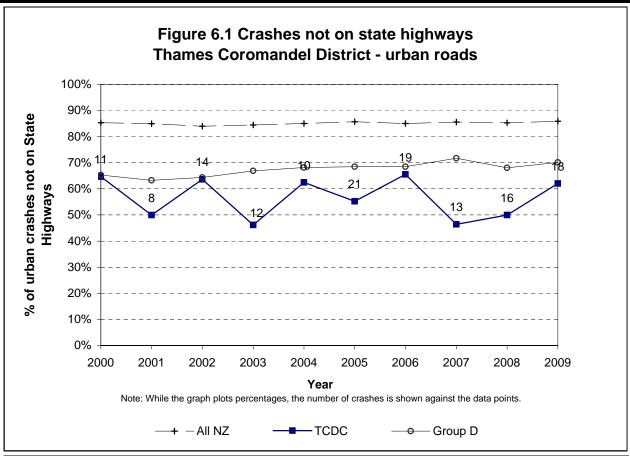


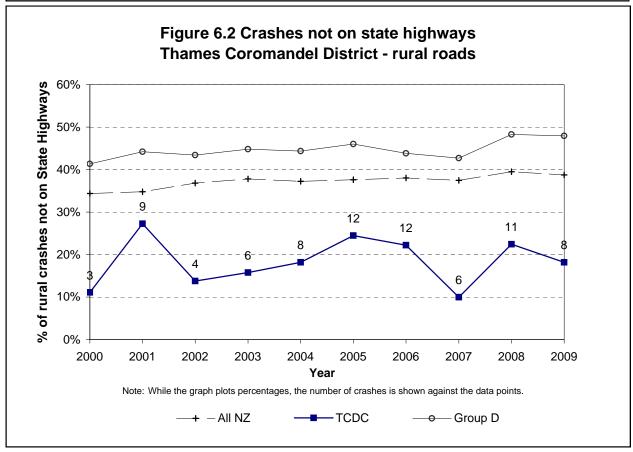


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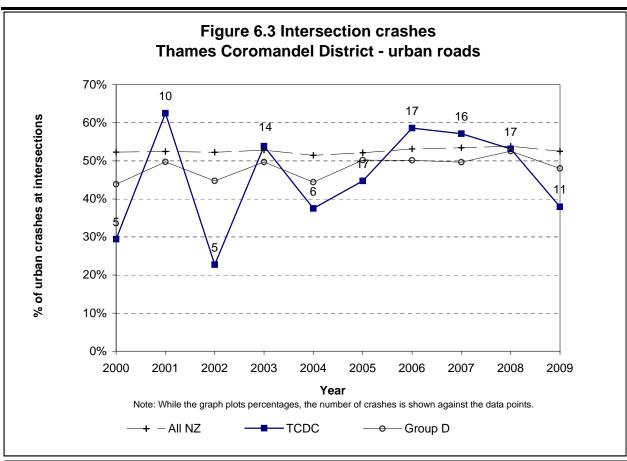


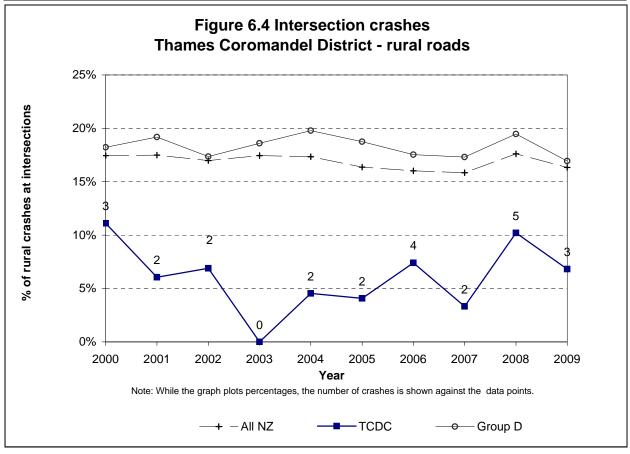




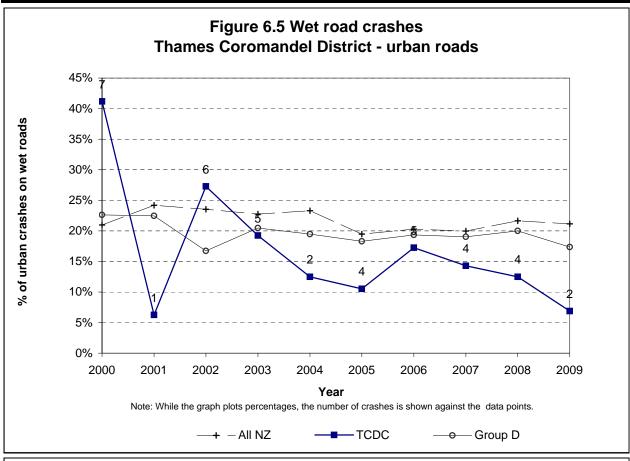


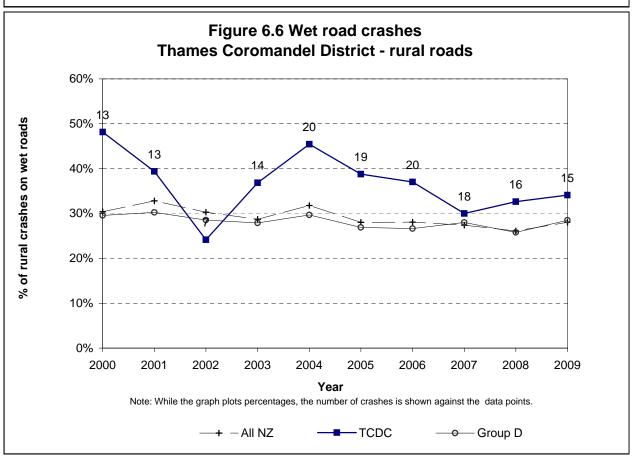




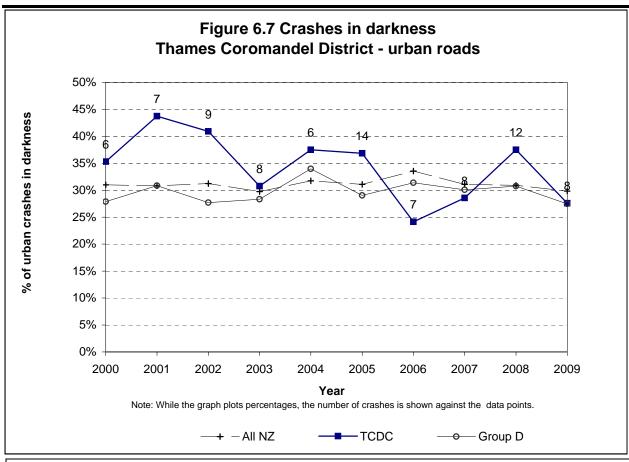


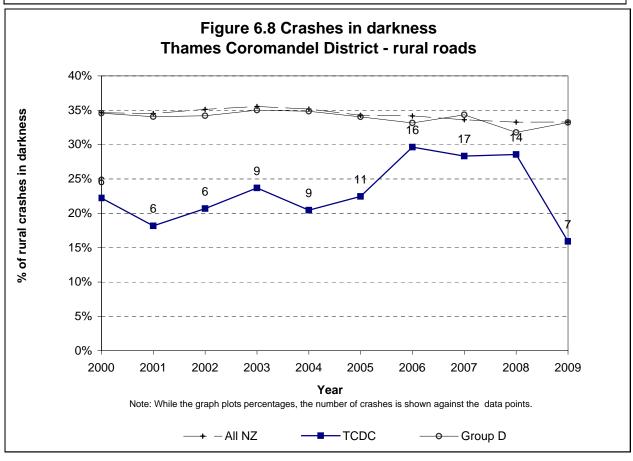




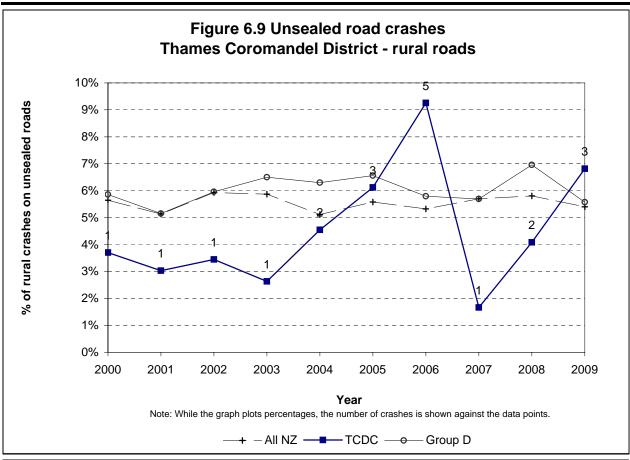


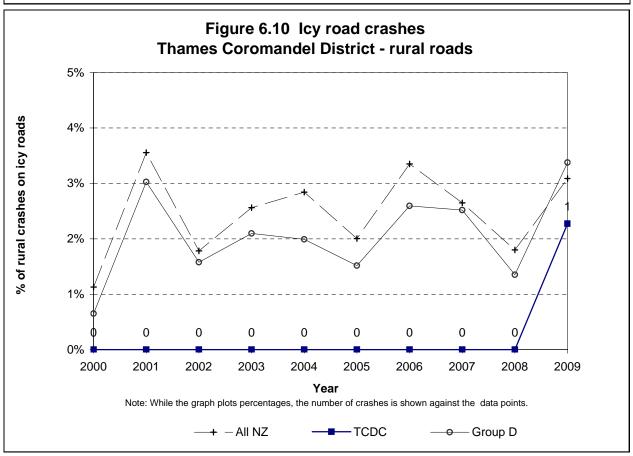




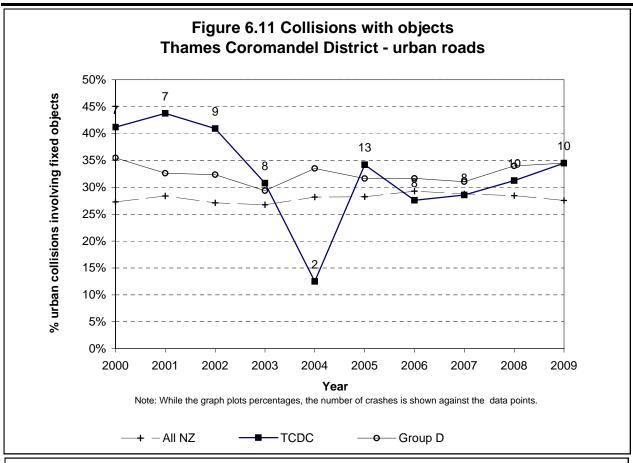


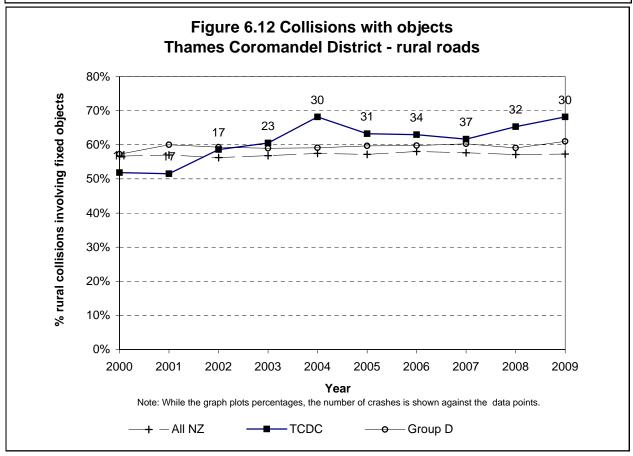




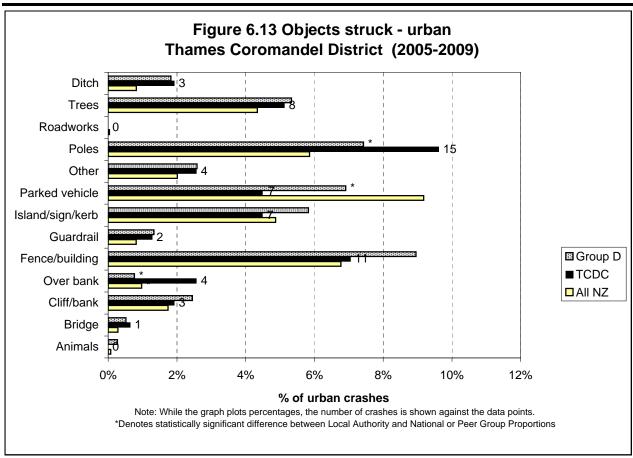


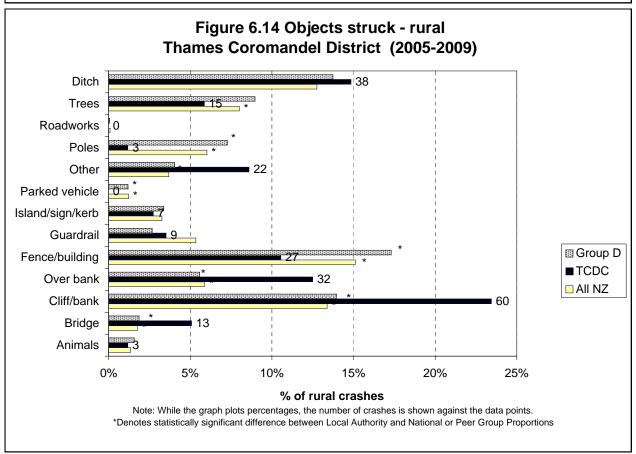












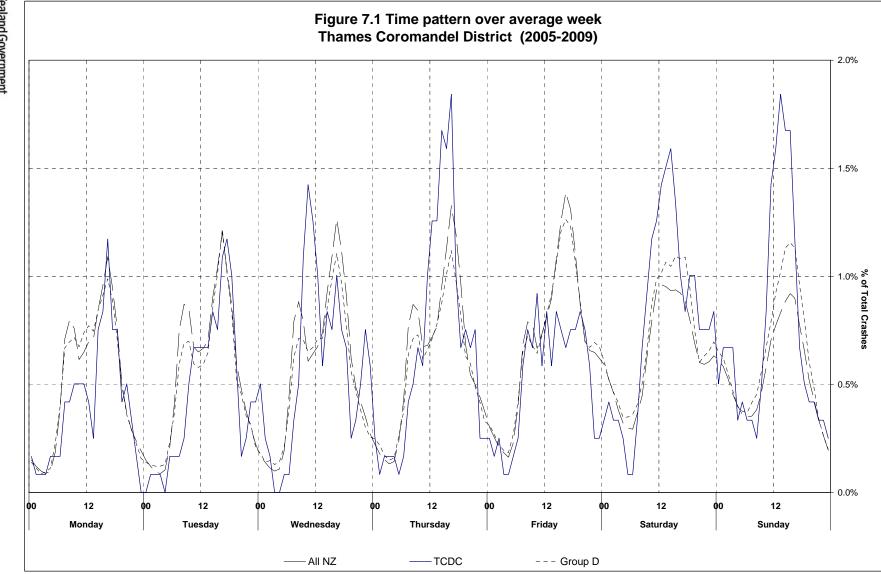




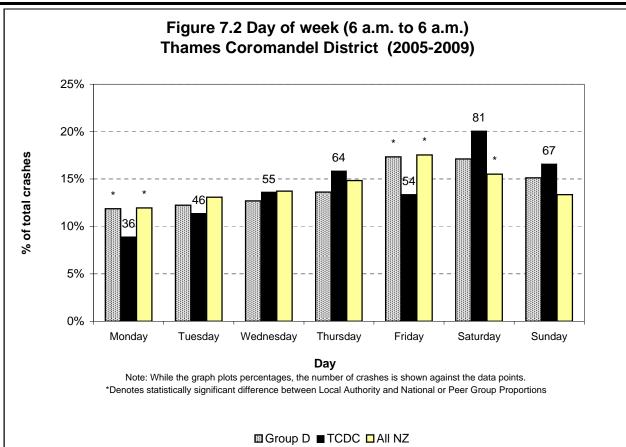
Date and Time Statistics

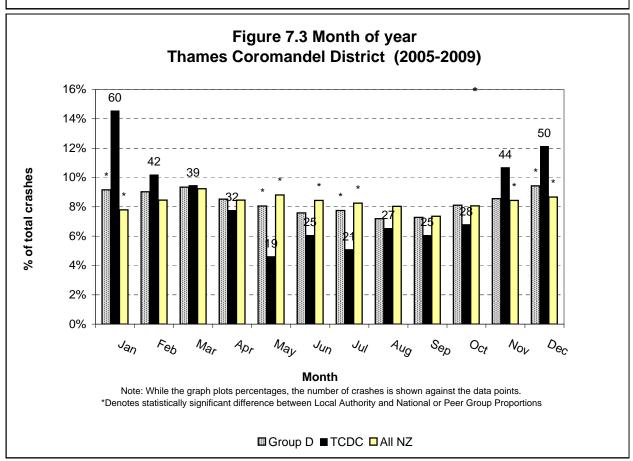


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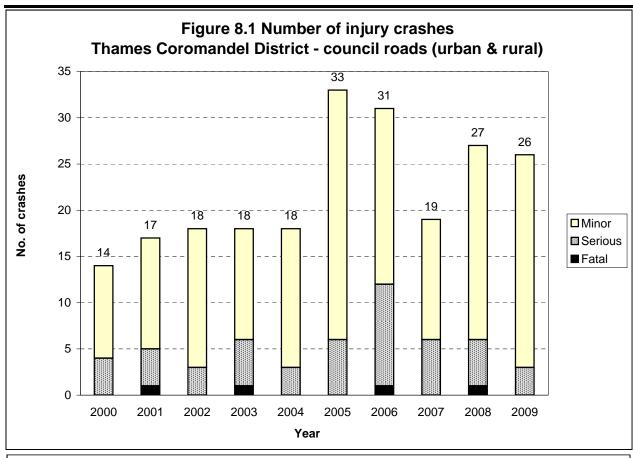


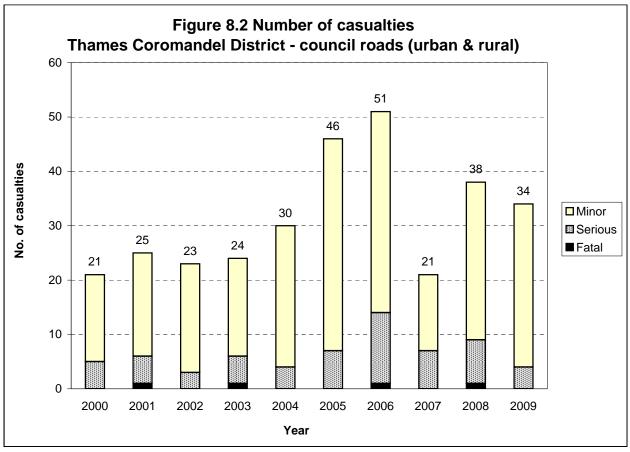


Local Road Statistics

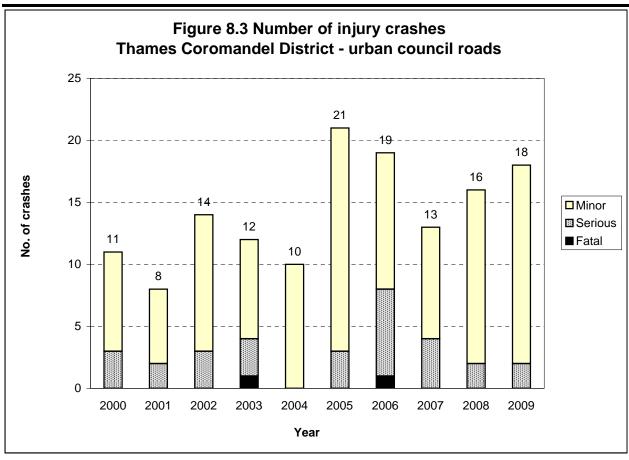


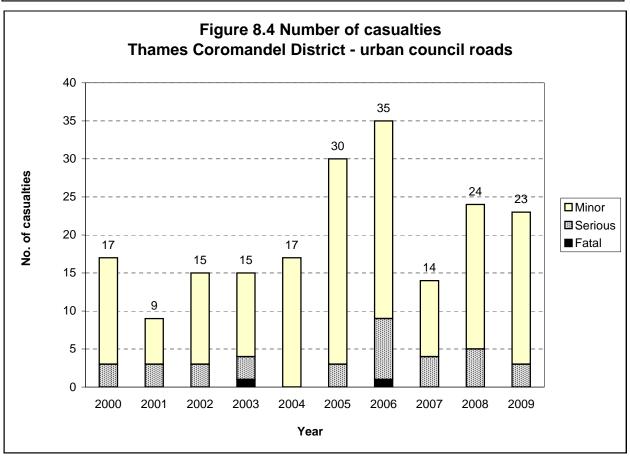




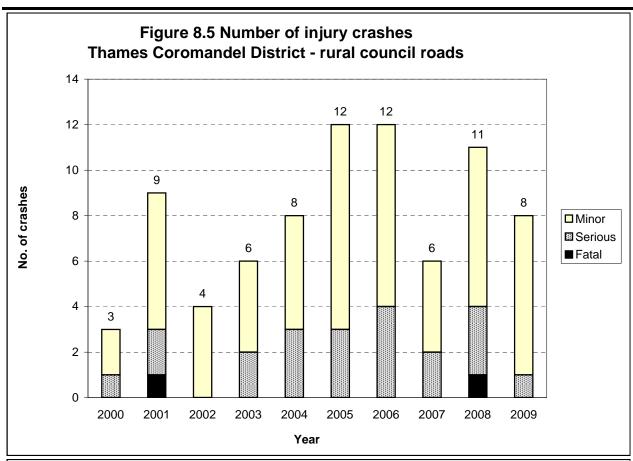


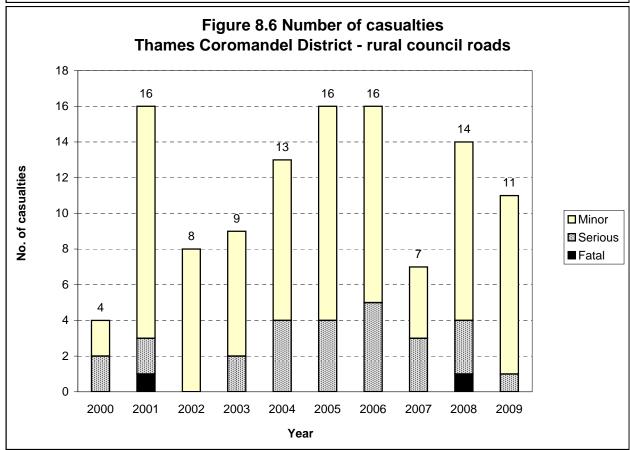




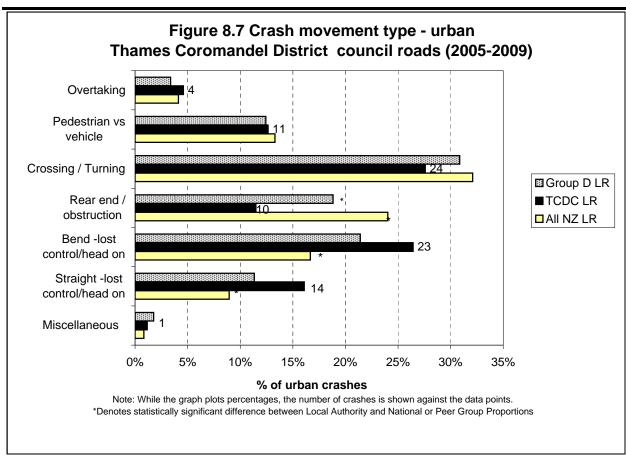


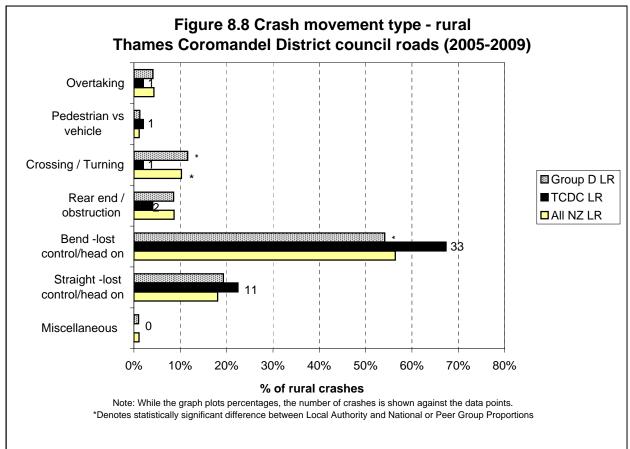




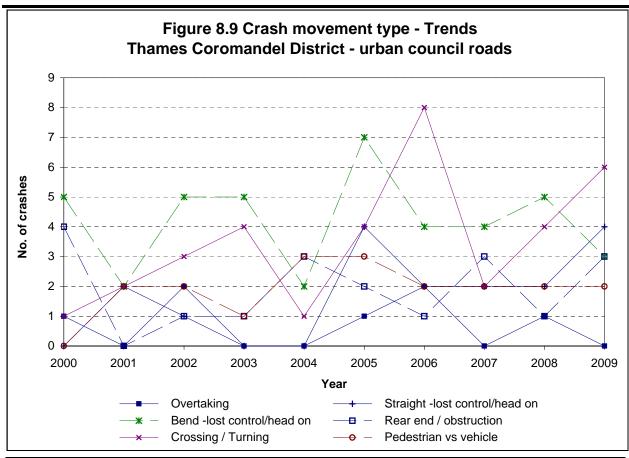


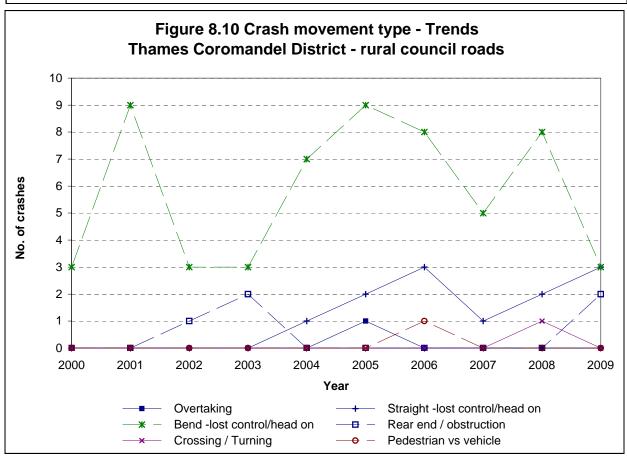




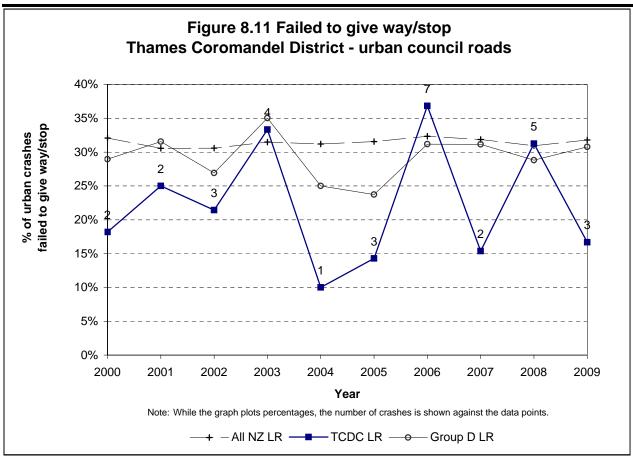


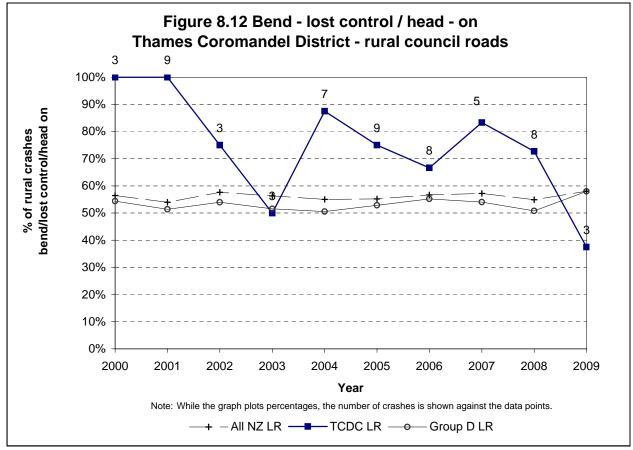




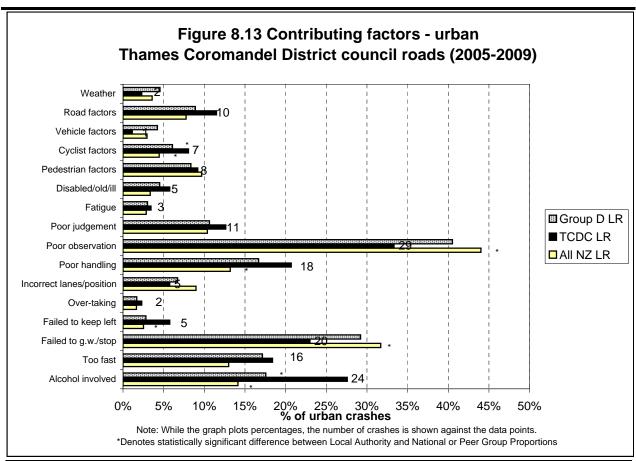


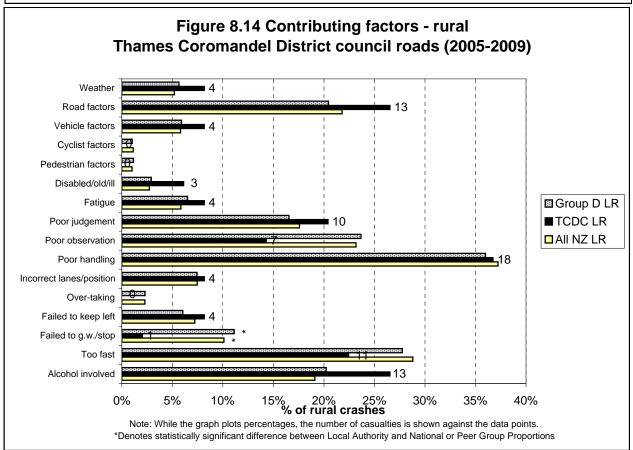




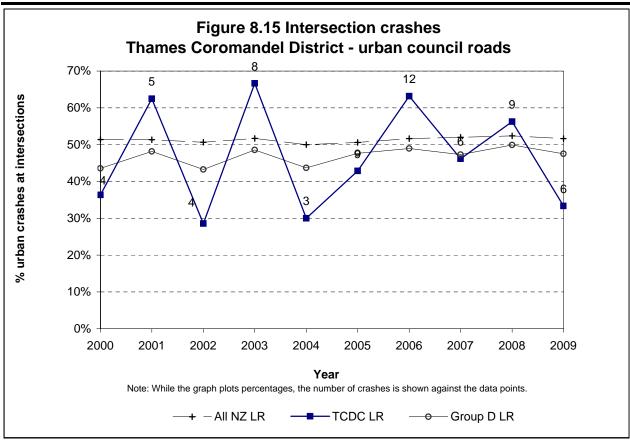


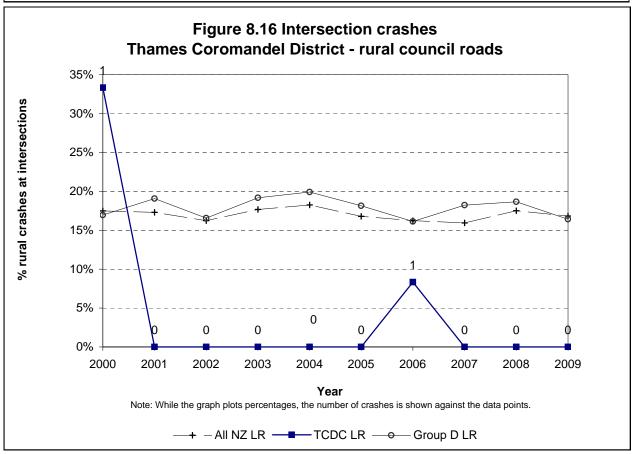




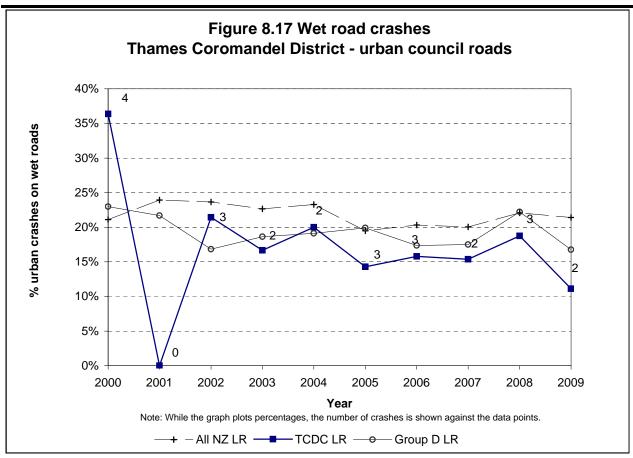


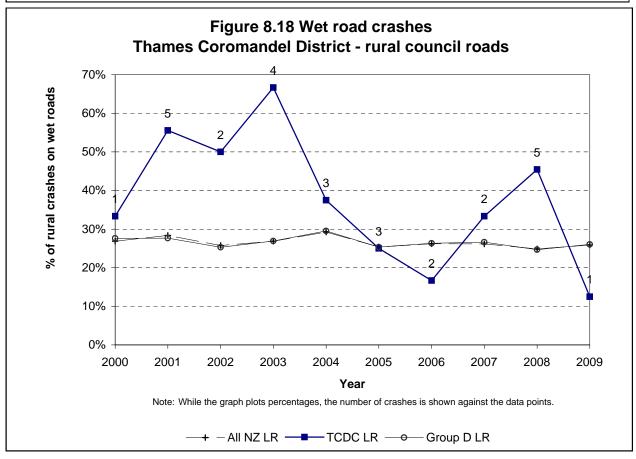




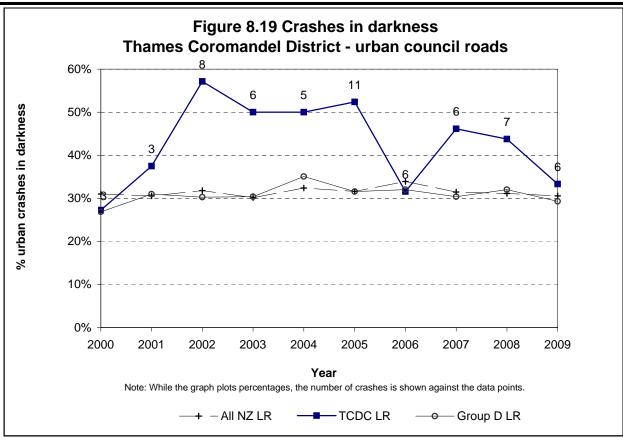


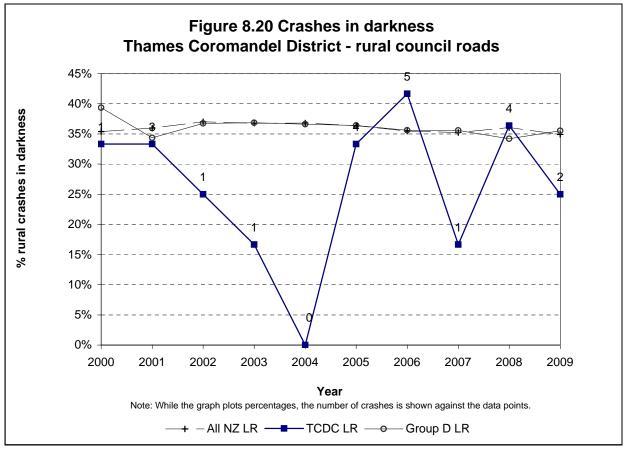




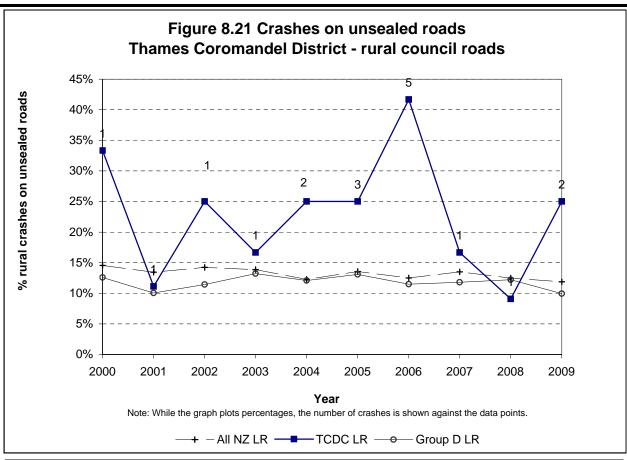


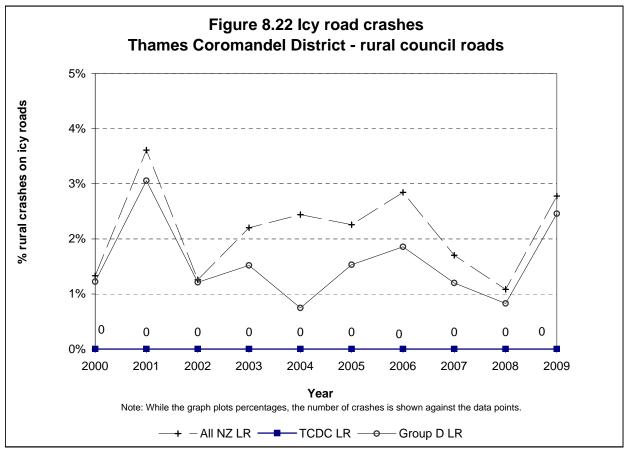




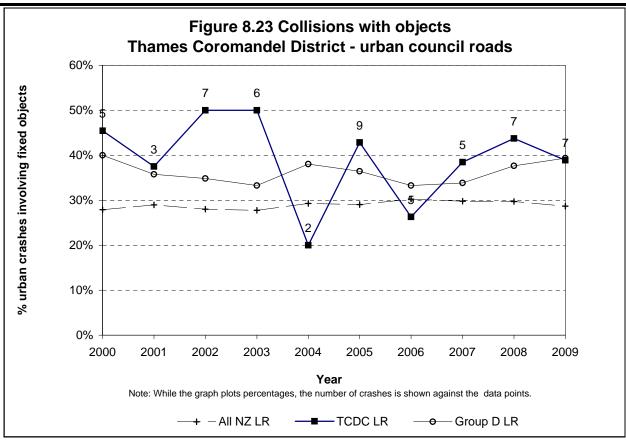


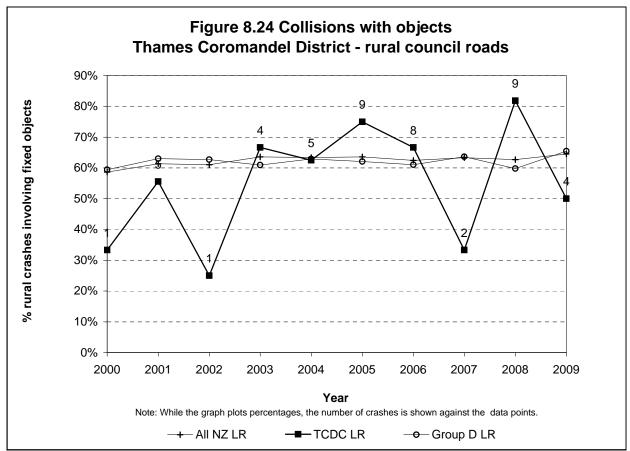




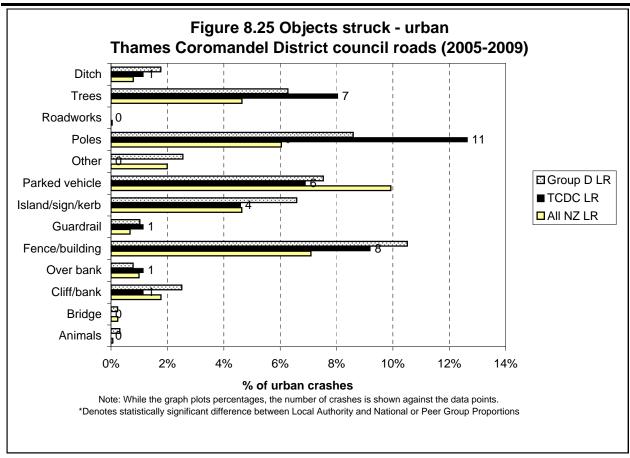


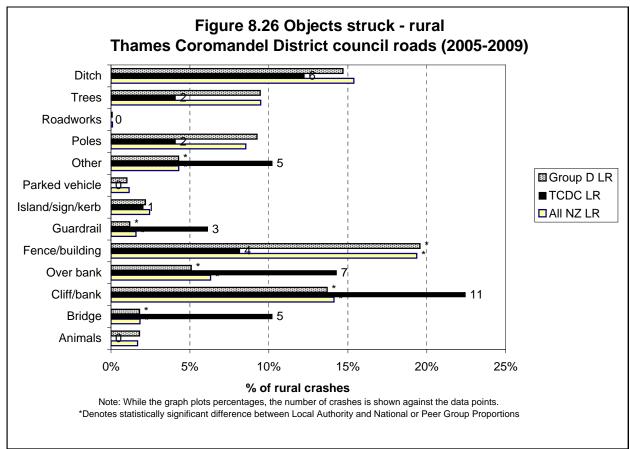
















Crash Location Statistics





Table 9.1: Council Roads Black Spot List Urban (Injury and Non-Injury Crashes)

Site Radius = 30 metres

Sites with 3 or more injury crashes or more than \$150000 in social costs

										Non-			
CRASH ROAD			SIDE ROAD	2005	2006	2007	2008	2009	TOTAL	Injury	%	%	Crash Costs
POLLEN ST	1		MARY ST	2	1	3	1	1	8	4	13	25	\$923,596
MACKAY ST	1		RICHMOND ST	1	7	1	1	0	10	7	0	10	\$868,514
POLLEN ST		60 S	SEALEY ST	0	0	1	1	1	3	1	0	0	\$725,170
ROLLESTON ST	1		GREY ST	1	1	1	0	0	3	2	33	33	\$637,634
POLLEN ST		100 N	GREY ST	0	0	1	2	1	4	1	25	50	\$231,530
MACKAY ST	1		SEALEY ST	1	2	0	0	0	3	1	33	33	\$161,864

Table 9.2: Council Roads Black Spot List Rural (Injury and Non-Injury Crashes)

Site Radius = 250 metres

Sites with 3 or more injury crashes or more than \$150000 in social costs

								Non-	Wet Crash	Dark Crash	
CRASH ROAD	SIDE ROAD	2005	2006	2007	2008	2009	TOTAL		%	%	Crash Costs
HIKUAI SETTLEMENT ROAD	6000 E SH 25	2	2	1	0	0	5	4	40	60	\$929,600
COLVILLE ROAD	2270 W CALLOWAY LANE	1	0	0	2	0	3	1	67	33	\$827,617
HIKUAI SETTLEMENT ROAD	2000 S TANGITARORI LANE	3	2	1	0	0	6	5	50	50	\$286,155
HOT WATER BEACH ROAD	100 S NEWTON ROAD	0	1	0	1	1	3	0	33	0	\$266,560
DRIVING CREEK ROAD	700 E RINGS ROAD	2	0	2	0	0	4	2	0	50	\$259,714
PURANGI ROAD	2500 N HAHEI ROAD	0	1	1	1	1	4	3	100	0	\$200,349
COLVILLE ROAD	1520 N CALLOWAY LANE	1	0	1	1	0	3	2	33	33	\$164,470
COLVILLE ROAD	1920 N DRIVING CREEK ROAD	0	0	0	2	1	3	2	33	33	\$161,714



Table 9.3: State Highway Urban and Rural Black Spot List (Injury and Non-Injury Crashes)

Urban Site Radius = 30 metres Rural Site Radius = 250 metres

Sites with 3 or more injury crashes or more than \$150000 in social costs

CRASH ROAD			SIDE ROAD	2005	2006	2007	2008	2009	TOTAL	Non- Injury	Wet Crash %	Dark Crash %	Crash Costs
SH 26	1		SH 25	7	1	9	6	2	25	10	16	20	\$7,155,549
SH 25		600 N	TIKI QUARRY ROAD	0	2	0	2	0	4	1	25	50	\$6,101,977
SH 25		1760 N	OPOUTERE ROAD	0	1	0	2	0	3	1	33	0	\$5,326,797
SH 25A		5620 E	SH 26	0	2	2	0	1	5	2	40	20	\$5,203,651
SH 25		1000 N	ADAMS ROAD	1	2	0	1	0	4	0	25	25	\$5,105,800
SH 25A		1100 W	KIRIKIRI STM BR NO2	2	1	2	4	0	9	5	78	0	\$4,969,043
SH 25A		400 N	SH 26	0	4	3	0	1	8	3	75	0	\$4,943,468
SH 25		2600 N	WHANGAPOUA ROAD	1	0	1	0	1	3	2	33	0	\$4,587,394
SH 25A		600 E	KIRIKIRI STM BR NO1	0	0	5	1	1	7	5	57	43	\$4,494,804
SH 25		1500 S	TE KOUMA ROAD	2	0	0	0	2	4	3	50	0	\$4,338,604
SH 25		100 N	KURANUI EUREKA ROAD	2	0	1	0	0	3	1	33	33	\$3,981,957
SH 25		6000 S	SH 25A	0	0	2	1	0	3	1	67	0	\$1,667,477
SH 25		1000 N	SAILORS GRAVE ROAD	1	1	1	1	0	4	2	50	25	\$1,666,810
SH 25		40 S	GOLF ROAD	0	3	1	1	0	5	3	40	100	\$1,662,509
SH 25		830 E	TE KAUANGA ROAD	0	2	0	1	0	3	1	0	0	\$1,629,176
SH 25		1000 N	OCEAN BEACH ROAD	8	2	2	1	1	14	11	50	7	\$1,308,583
SH 25		400 S	TOTARA VALLEY ROAD	0	1	1	2	2	6	4	17	50	\$1,052,466
SH 25		120 N	WAIKAWAU VALLEY ROAD	2	0	1	0	1	4	1	50	0	\$1,036,174
SH 25		1200 S	WADE ROAD	0	0	2	0	2	4	2	100	50	\$977,074
SH 25 TAIRUA WHITIANGA	١	600 N	HODGE ROAD	0	0	0	2	2	4	2	25	25	\$977,074
SH 25		1900 N	TE MATA CREEK ROAD	1	2	0	0	2	5	2	20	0	\$956,331
SH 25		2000 N	OCEAN BEACH ROAD	0	2	0	1	0	3	0	0	0	\$953,540
SH 25		3000 N	PAUL ROAD	0	2	0	0	1	3	0	33	33	\$953,540
SH 25	Α		WAIWAWA RIV BR	0	1	1	0	3	5	4	0	20	\$947,326
SH 25		200 N	TAPU COROGLEN ROAD	1	0	2	0	0	3	1	0	67	\$943,074
SH 25A		1420 E	KIRIKIRI STM BR NO2	3	1	0	0	1	5	3	60	0	\$910,666
SH 25		1270 E	MCBETH ROAD	1	0	1	1	0	3	2	67	0	\$891,630
SH 25		1140 N	WINIATA ST	0	1	1	0	1	3	2	0	67	\$890,752
SH 25A		1000 S	SUMMIT	2	1	0	0	0	3	1	33	0	\$834,396
SH 25	1		TONY AVENUE	2	1	0	0	0	3	0	33	33	\$795,760
SH 25	1		PEPE ROAD	0	2	0	1	1	4	2	25	75	\$742,684
SH 25A	Α		KIRIKIRI STM BR NO1	2	0	4	1	1	8	4	63	25	\$507,484
SH 25A		200 E	KIRIKIRI STM BR NO2	3	3	0	1	0	7	4	71	29	\$425,696
SH 25		870 N	TARARU CREEK ROAD	0	3	1	0	2	6	3	50	67	\$380,669
SH 25A		1200 E	SH 26	2	2	1	0	0	5	2	80	20	\$349,609
SH 25		2000 N	TARARU CREEK ROAD	1	1	1	1	3	7	6	71	29	\$313,377
SH 25		1800 S	WIDDISON PLACE	0	1	3	2	1	7	6	86	29	\$310,620
SH 25A		2640 E	KIRIKIRI STM BR NO2	3	0	0	2	0	5	3	60	40	\$294,941
SH 25		1570 S	HOT WATER BEACH ROAD	0	2	1	2	0	5	3	60	40	\$290,509
SH 25		500 S	WADE ROAD	0	1	2	1	1	5	3	60	20	\$288,549
SH 25		2000 S	MILL CREEK ROAD	0	0	0	1	4	5	3	60	20	\$286,671
SH 25A		2000 E	SUMMIT	1	0	3	2	0	6	5	67	33	\$274,741
SH 25		500 N	TE PURU CREEK ROAD	1	1	0	1	1	4	1	0	25	\$274,687
SH 25A		7500 S	PUKETUI ROAD	0	3	0	0	1	4	2	75	25	\$255,631
SH 25		1900 S	LOCKHART PLACE	0	2	0	0	2	4	2	25	25	\$246,811
SH 25	1		POLLEN ST	3	4	3	0	1	11	10	27	9	\$246,308
SH 25		1850 S	LIDDELL ROAD	0	0	1	1	3	5	4	20	60	\$235,227
SH 25	1		BANKS ST	6	0	1	0	0	7	5	43	14	\$233,120
SH 25	1		ALBERT ST	0	0	1	2	1	4	1	0	0	\$231,530
SH 25		1200 S	SH 25A	3	0	0	0	0	3	1	100	33	\$225,714



Table 9.3: State Highway Urban and Rural Black Spot List (Injury and Non-Injury Crashes)

Urban Site Radius = 30 metres Rural Site Radius = 250 metres

Sites with 3 or more injury crashes or more than \$150000 in social costs

										Non-	Wet Crash	Dark Crash	
CRASH ROAD			SIDE ROAD	2005	2006	2007	2008	2009	TOTAL	Injury	%	%	Crash Costs
SH 25		300 S	WIDDISON PLACE	1	1	0	1	0	3	1	0	67	\$220,017
SH 25		50 S	TARARU CREEK ROAD	1	1	0	0	1	3	1	0	0	\$219,936
SH 25	1		HOT WATER BEACH ROAD	1	0	1	1	0	3	1	0	0	\$218,057
SH 25		400 S	MORRISON ROAD S	0	2	1	0	0	3	1	67	0	\$216,996
SH 26		60 N	WARAHOE ROAD	1	0	2	0	0	3	1	33	100	\$215,914
SH 25A		1650 E	SUMMIT	0	0	0	3	0	3	1	67	0	\$213,157
SH 25A	Α		TAIRUA RIV BR	0	0	1	2	0	3	1	33	0	\$213,157
SH 25	1		TE KOUMA ROAD	1	2	0	0	1	4	3	25	25	\$205,066
SH 25		500 N	OPOUTERE ROAD	1	0	1	2	0	4	3	50	0	\$203,371
SH 25		500 S	VALDER PLACE	1	1	1	1	0	4	3	75	0	\$203,187
SH 25		1500 S	WENTWORTH VALLEY ROA	1	1	2	0	0	4	3	50	50	\$203,187
SH 25A		1090 N	TAIRUA RIV BR	1	1	2	0	0	4	3	50	25	\$203,187
SH 25		400 E	MCBETH ROAD	1	0	3	0	0	4	3	100	0	\$201,227
SH 25		500 N	PAUL ROAD	1	0	1	1	1	4	3	25	0	\$201,227
SH 25		600 S	PAUL ROAD	1	0	1	0	2	4	3	25	75	\$201,227
SH 25		1000 S	MILL CREEK ROAD	0	1	1	2	0	4	3	50	25	\$200,431
SH 25		250 S	OMAWHITI STM BR	0	0	2	1	1	4	3	50	0	\$198,471
SH 25A		1750 E	KIRIKIRI STM BR NO1	0	0	2	2	0	4	3	25	0	\$198,471
SH 26		1500 N	WARAHOE ROAD	0	0	2	0	2	4	3	50	0	\$198,471
SH 25		890 S	ASH ST	1	1	0	1	0	3	1	0	67	\$191,310
SH 25A		3000 E	SH 25	1	1	0	0	1	3	2	67	0	\$168,492
SH 26		10 N	BOND ROAD	1	2	0	0	0	3	2	0	33	\$168,309
SH 25	1		SH 25A	1	1	1	0	0	3	2	67	0	\$166,430
SH 25A		1000 E	SH 25	0	2	0	0	1	3	2	67	33	\$165,552
SH 25	1		PAUL ROAD	1	0	1	1	0	3	2	33	33	\$164,470
SH 25	1		RANGIHAU ROAD	1	0	1	1	0	3	2	33	0	\$164,470
SH 25		500 W	MCBETH ROAD	0	1	1	1	0	3	2	100	33	\$163,592
SH 25		3000 N	TE MATA CREEK ROAD	0	1	1	1	0	3	2	33	0	\$163,592
SH 25	1		BURKE ST	1	0	0	1	1	3	1	33	33	\$163,590
SH 25		4000 N	HIKUAI SETTLEMENT ROAL	0	0	3	0	0	3	2	0	33	\$161,714
SH 25	1		OTUTURU CRESCENT	0	0	0	1	2	3	2	0	0	\$161,714
SH 25	1		RICHMOND ST	0	1	0	0	2	3	1	33	0	\$161,010
SH 25	Α		WILSON ST	2	0	0	1	1	4	3	0	25	\$160,480
SH 25		2000 S	SH 25A	2	1	1	0	0	4	4	25	50	\$154,420
SH 25		300 N	SH 26	0	2	0	3	0	5	5	40	40	\$153,661



Thames Coromandel District Road Safety Report 2005 - 2009

	n Council Road Crash S t Increase in Crashes Injury Crashes)							Site Radius = 30 metres
crash road There are no urban	SIDE ROAD alarm sites	2004	2005	2006	2007	2008	2009	Wet Dark Non- Crash Crash TOTAL Injury % %
	al Council Road Crash S t Increase in Crashes Injury Crashes)							Site Radius = 250 metres
CRASH ROAD	SIDE ROAD	2004	2005	2006	2007	2008	2009	Wet Dark Non- Crash Crash TOTAL Injury % %



Table 9.5 : State Highway Crash Sites with a Significant Increase in Crashes in 2009 (Injury and Non-Injury Crashes)

Urban Site Radius = 30 metres Rural Site Radius = 250 metres

CRASH ROAD SH 25	I	SIDE ROAD MARY ST	1 2004	5002	7 2006	0 2007	0 2008	6002 4	TOTAL	Non- Injury 7	Wet Crash %	Dark Crash % 14
SH 25	20	000 S MILL CREEK ROAD	0	0	0	0	1	4	5	3	60	20
SH 25	Α	WAIWAWA RIV BR	0	0	1	1	0	3	5	4	0	20
SH 25	18	850 S LIDDELL ROAD	0	0	0	1	1	3	5	4	20	60
SH 25	1	MACKAY ST	0	0	0	0	1	2	3	3	33	33
SH 25	1	RICHMOND ST	0	0	1	0	0	2	3	1	33	0
SH 25	2	250 S MILL ENT	0	0	0	0	1	2	3	3	0	33
SH 25	20	000 N TROTTER AVENUE	0	0	0	1	0	2	3	3	33	0

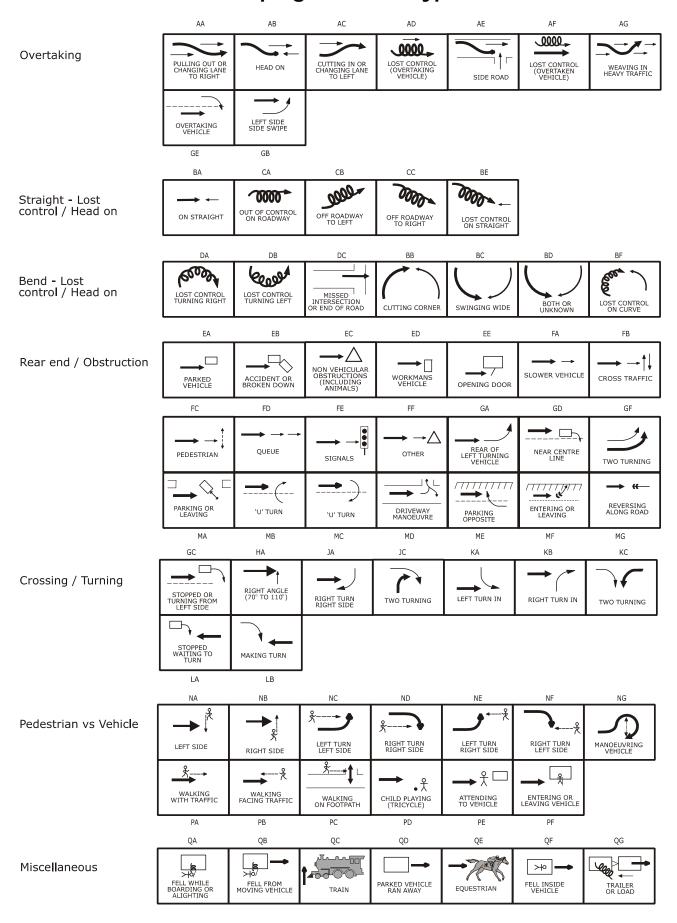
appendix

- Groupings of crash types
- Grouping of contributing factors
- General factor list
- General movement types

Explanatory notes for the appendix

- 1. Each traffic crash report has a diagram and a description of what happened. These are used to classify the movements the vehicles were making when they crashed eg 'collided with parked vehicle', or 'lost control while overtaking'. In this report, crash types are grouped into seven categories. The following page shows the types of crashes which are included in each group.
- 2. Traffic crash reports also include information on why the crash occurred, or on factors contributing to the crash. In this report the hundreds of contributing factor codes used by New Zealand Transport Agency have been condensed into 16 groups for practical reasons. Lists of the factor groups used in this report, and of all the contributing factors used by New Zealand Transport Agency, are shown on the following pages.
- 3. Note that in the year 2000 there were some minor changes to the contributing factor groups. The most significant change was that 'inattention' was grouped with 'inadequate check' to form 'poor observation'. This allowed a more accurate assessment of 'fatigue' as a contributing factor, as it now has its own grouping.
- 4. The factor group 'poor handling' includes factor codes that were only introduced in 1998. This could explain why there may have been a sudden change at this time.
- 5. The coding of the factors contributing to a crash is subjective. Therefore analysis using contributing factor groups needs to be interpreted with caution. Also, to effectively target safety or enforcement campaigns more analysis of the specific contributing factors involved may be needed.
- 6. It should be noted that a traffic crash generally has more than one contributing factor. Therefore, adding the number of crashes on graphs showing the number of crashes with a given factor or factor group will be greater than the total number of crashes in the city or district.

Groupings of crash types



Groupings of contributing factors

Factor group	Factor codes included
Alcohol involved	100 – 101
	103 – 109
Too fast	110 – 119
	430 – 432
Failed to give way or stop	300 – 314
	320 – 328
Failed to keep left	120 – 128
	205
Overtaking	150 – 161
o o	
Incorrect lanes or position	129
	170 – 183
	200 – 204
	206 – 209
	440 – 448
Poor handling	130 – 134
3	137 – 149
	420 – 429
Poor observation	330 – 360
l doi descriution	370 – 379
Poor judgement	380 – 387
	400 – 407
Fatigue	410 – 415
Disabled, old age or illness	500 – 507
Pedestrian factors	700 – 731
Cyclict factors	Any factor and a seciment
Cyclist factors	Any factor coded against a cyclist
	Cyclist
Vehicle factors	136, 600 – 699
Dood footons	125 000 000
Road factors	135, 800 – 899
Weather	900 – 909

Note:

The following factor codes are not included as they do not fit adequately into any of the above groupings: 102, 106, 190–198, 433, 434, 510–534 and 910–999.



NZ TRANSPORT AGENCY VEHICLE MOVEMENT CODING SHEET

For use with crash data from CAS (Version 2.8 May 2010)

	TYPE	Α	В	С	D	Е	F	G	0
Α	OVERTAKING AND LANE CHANGE	PULLING OUT OR CHANGING LANE TO RIGHT	HEAD ON	CUTTING IN OR CHANGING LANE TO LEFT	LOST CONTROL (OVERTAKING VEHICLE)	SIDE ROAD	LOST CONTROL (OVERTAKEN VEHICLE)	WEAVING IN HEAVY TRAFFIC	OTHER
В	HEAD ON	ON STRAIGHT	CUTTING CORNER	SWINGING WIDE	BOTH OR UNKNOWN	LOST CONTROL ON STRAIGHT	LOST CONTROL ON CURVE		OTHER
С	LOST CONTROL OR OFF ROAD (STRAIGHT ROADS)	OUT OF CONTROL ON ROADWAY	OFF ROADWAY TO LEFT	OFF ROADWAY TO RIGHT					OTHER
D	CORNERING	LOST CONTROL TURNING RIGHT	LOST CONTROL TURNING LEFT	MISSED INTERSECTION OR END OF ROAD					OTHER
E	COLLISION WITH OBSTRUCTION	PARKED VEHICLE	CRASH OR BROKEN DOWN	NON VEHICULAR OBSTRUCTIONS (INCLUDING ANIMALS)	WORKMANS VEHICLE	OPENING DOOR			OTHER
F	REAR END	SLOWER VEHICLE	CROSS TRAFFIC	PEDESTRIAN	QUEUE	signals I	→		OTHER
G	TURNING VERSUS SAME DIRECTION	REAR OF LEFT TURNING VEHICLE	LEFT TURN SIDE SIDE SWIPE	STOPPED OR TURNING FROM LEFT SIDE	NEAR CENTRE LINE	OVERTAKING VEHICLE	TWO TURNING		OTHER
Н	CROSSING (NO TURNS)	RIGHT ANGLE (70° TO 110°)							OTHER
J	CROSSING (VEHICLE TURNING)	RIGHT TURN RIGHT SIDE	OPPOSING RIGHT TURNS	TWO TURNING					OTHER
K	MERGING	LEFT TURN IN	RIGHT TURN IN	TWO TURNING					OTHER
L	RIGHT TURN AGAINST	STOPPED WAITING TO TURN	MAKING TURN						OTHER
M	MANOEUVRING	PARKING OR LEAVING	"U" TURN	"U" TURN	DRIVEWAY	ENTERING OR LEAVING FROM OPPOSITE SIDE	ENTERING OR LEAVING FROM SAME SIDE	REVERSING ALONG ROAD	OTHER
N	PEDESTRIANS CROSSING ROAD	LEFT SIDE	RIGHT SIDE	LEFT TURN LEFT SIDE	RIGHT TURN RIGHT SIDE	LEFT TURN RIGHT SIDE	RIGHT TURN LEFT SIDE	MANOEUVRING VEHICLE	OTHER
Р	PEDESTRIANS OTHER	WALKING WITH TRAFFIC	WALKING FACING TRAFFIC	WALKING ON FOOTPATH	CHILD PLAYING (INCLUDING TRICYCLE)	ATTENDING TO VEHICLE	ENTERING OR LEAVING VEHICLE		OTHER
Q	MISCELLANEOUS	Ho/ FELL WHILE BOARDING OR ALIGHTING	>-lo/ FELL FROM MOVING VEHICLE	TRAIN	PARKED VEHICLE RAN AWAY	EQUESTRIAN	FELL INSIDE VEHICLE	TRAILER OR LOAD	OTHER

FACTORS PROBABLY CONTRIBUTING TO

CRASHES (Version 1.8- 2 November 2009)

DRIVER CONTROL

100 Alcohol or drugs

- 101 Alcohol suspected
- 102 Alcohol test below limit
- 103 Alcohol test above limit or test refused

- 104 Alcohol test result unknown 105 Intoxicated non-driver (pedestrian / cyclist / passenger)
- 106 (MOT only) dead driver not suspect, tested neg
- 108 Drugs suspected
- 109 Drugs proven

110 Too fast for conditions

- 111 Cornering
- 112 On straight
- 113 To give way at intersection
- 114 Approaching railway crossing 115 When passing stationary school bus
- 116 At temporary speed limit 117 At crash or emergency

120 Failed to keep left

- 121 Swung wide on bend 122 Swung wide at intersection
- 123 Cutting corner on bend124 Cutting corner at intersection
- 125 On straight section 126 Vehicle crossed raised median
- 127 Driving or riding abreast (cyclists more than 2 abreast)
 128 Wandering or wobbling
 129 Too far left / right

130 Lost control

- 131 When turning
- 132 Under heavy braking
- 133 Under heavy acceleration
 134 While returning to seal from unsealed shoulder
- 135 Due to road conditions (requires road series code)
- 136 Due to vehicle fault (requires vehicle series code)
- 137 Avoiding another vehicle, pedestrian, party or obstacle on roadway
 138 On unsealed road
 139 End of seal

140 Failed to signal in time

- 141 When moving to left, pulling over to left142 When turning left
- 143 When pulling out or moving to the right144 When turning right
- 145 Incorrect Signal

- 150 Overtaking 151 Overtaking line of traffic or queue
 - 152 Deliberately in the face of oncoming traffic 153 Failed to notice oncoming traffic
- 154 Misjudged speed or distance of oncoming traffic
- 155 At no passing line 156 With insufficient visibility
- 157 At an intersection without due care 158 On left without due care
- 159 Cut in after overtaking
- 160 Vehicle signalling right turn
 161 Without care at a pedestrian crossing

170 Wrong lane or turned from wrong position

- 171 Turned right from incorrect lane 172 Turned left from incorrect lane 173 Travelled straight ahead from turning lane or flush median
- 174 Turned right from left side of road
- 175 Turned left from near centre line 176 Turned into incorrect lane
- 177 Weaving or cut in on multi-lane roads 178 Moved left to avoid slow vehicle 179 Long vehicle tracked outside lane

180 In line of traffic 181 Following too closely

- 182 Travelling unreasonably slowly 183 Motorist crowded cyclist
- 184 Incorrect merging /diverging manoeuvre

190 **Sudden action** 191 Braked

- 192 Turned left
- 193 Turned right 194 Swerved to avoid pedestrian
- 195 Swerved to avoid animal196 Swerved to avoid crash or broken down vehicle
- 197 Swerved to avoid vehicle 198 Swerved to avoid object or for unknown reason
- 199 Avoiding approaching emergency vehicle

- 200 Forbidden movements
 - 201 Wrong way in one way street, motorway or roundahout
 - 202 When turning or U turning contrary to a
 - sign 203 Contrary to "in" or "out" only driveway sign

 - 204 Driving or riding on footpath 205 On incorrect side of island or median
- 206 Contrary to "no entry" sign 207 In Car Park

- 208 Motor vehicle in cycle lane 209 Bus / Transit lane 210 Cyclist riding on ped-xing / ped signals

VEHICLE CONFLICTS

- 300 Failed to give way
- 301 At Stop sign 302 At Give Way sign 303 When turning to non-turning traffic 304 When deemed turning by markings, not geometry
- 305 When turning left, to opposing right turning traffic
 306 To pedestrian on a crossing
 307 When turning at signals to pedestrians
 308 When entering roadway from driveway

- 309 To traffic approaching or crossing from the
- right
- 310 Failed to give way at one lane bridge / road
 311 Failed to give way to pedestrian on footpath or verge
 312 Entering roadway not from driveway or
- intersection
 313 To emergency vehicle
 314 Driver waved through

320 Did not stop

- 321 At stop sign 322 At steady red light 323 At steady red arrow 324 At steady amber light
- 325 At steady amber arrow 326 At flashing red lights (Rail Xing, Fire Stn
- etc) 327 For police or flag-person
- 328 For school patrol / kea crossing

330 Inattentive: failed to notice

- 331 Vehicle slowing, stopping or stationary in front
- 332 Bend in road
- 333 Indication of vehicle in front 334 Traffic lights 335 Intersection or its Stop / Give Way control 336 Other regulatory sign / markings
- 337 Warning sign
 338 Direction, information signs / markings
 339 Road-works signs
 340 Lane use arrows / markings?

- 341 Obstructions on Roadway

350 Attention diverted by: 351 Passengers

- 352 Scenery or persons outside vehicle
- 353 Other traffic
- 354 Animal or insect in vehicle
 355 Trying to find intersection, house number, destination

- destination
 356 Advertising or signs
 357 Emotionally upset /road rage
 358 Cigarette, radio, heater, AC, glove box, obj
 under drivers feet/pedals etc
- 359 Cell phone
- 361 Navigation device
- CB radio/ non cell comms device
- 363 Driver dazzled

370 Did not see or look for another party until

- 371 Behind when reversing / manoeuvring 372 Behind when changing lanes position or direction (includes U-turns)
 373 Behind when pulling out from parked
- position 374 Behind when opening door or leaving
- vehicle
 375 When required to give way to traffic from
- another direction

 376 When required to give way to pedestrians.
- 377 When visibility obstructed by other vehicles 378 When visibility limited by roadside features 379 When first in queue on receiving green

- 380 Misjudged speed, distance, size or position of: 381 Other vehicle coming from behind or alongside
 - 382 Other vehicle coming from another direction with right of way 383 Pedestrian movement or intention 384 Towed vehicle, or while towing a vehicle
- 385 Size or position of fixed object or obstacle 386 Of own vehicle
- 387 Misjudged intentions of another party

GENERAL DRIVER

- 400 Inexperience
 401 In driving in fast, complex or heavy traffic
 402 New driver showed inexperience
 403 Driving unfamiliar vehicle
 404 Overseas / migrant driver fails to adjust to NZ
 - road rules and road conditions
 405 Driver under instruction
 - 406 At towing trailer / other vehicle 407 Driver over-reacted
 - 408 Unsupervised cyclist
- 410 Fatigue (drowsy, tired, fell asleep)
 - 411 Long trip 412 Lack of sleep 413 Exhaust fumes

 - 414 Worked long hours before driving 415 Exceeded driving hours
- 420 Incorrect use of vehicle controls
- 421 Started in gear 422 Stalled engine
- 423 Wrong pedal 424 Footrest, stand 425 Ignition turned off (steering locked) 426 Lights not switched on
- 427 Foot slipped or caught under pedal 428 Parking brake not fully applied 429 Trailer coupling or safety chain not secured

- 430 Showing off

 - 431 Racing 432 Playing chicken 433 Wheel spins / wheelies / doughnuts / drifting 434 Intimidating driving
- 440 Parked or stopped
 441 Inadequately lit at night: (not lit by street lights or park lights off)

 - 442 At point of limited visibility
 443 Not as close as practicable to side of road
- 444 On incorrect side of road 445 Double parked 446 In 'No Stopping' area 447 Not clear of rail crossing

448 In cycle or Transit lane

- **GENERAL PERSON**
- 500 Illness and disability
 501 Illness with no warning e.g. heart attack,
 unexpected epilepsy)
 502 Physically disabled
 - 503 Defective vision 504 Medical illness (not sudden) flu, diabetes
 - 505 Mental illness (depression, psychosis) 506 Suicidal (but not successful)

507 Impaired ability due to old age

- 510 Intentional or criminal
 - 511 Deliberate homicide (only if succeeded)512 Intentional collision
 - 513 Committed suicide (only if succeeded)
 514 Evading enforcement
 515 Object deliberately thrown at or dropped on
- vehicle / shot at
 516 Object thrown from vehicle
 517 Stolen vehicle
- 520 Driver or passenger, boarding, leaving, in vehicle
 - 521 Boarding moving vehicle 522 Intentionally leaving moving vehicle
- 523 Riding in insecure position 524 Interfered with driver
- 525 Opened door inadvertently 526 Overloaded vehicle (with passengers)
- 527 Child playing in parked vehicle
- 530 Miscellaneous person
 531 Casualty drowned
 532 Casualty thrown from vehicle
 533 Equestrian not keeping to verge
 534 Cyclist or M/cyclist wearing dark clothing

VEHICLES

600 Lights and reflectors at fault or dirty 601 Dazzling headlights

- 602 Headlights inadequate or no headlights
 603 Headlights failed suddenly
 604 Brake-lights or indicators faulty or not fitted
 605 Tail-lights inadequate or no tail-lights
- 606 Reflectors inadequate or no reflectors 607 Lights or reflectors obscured

610 Brakes

- 611 Parking brake failed 612 Parking brake defective 613 Service brake failed
- 614 Service brake defective
- 615 Jack-knifed

620 Steering

- 621 Defective
- 622 Failed suddenly

- 631 Puncture or blow-out
- 632 Worn tread on tyre
- 633 Incorrect tyre type 634 Mixed treads / space savers

640 Windscreen or mirror

- 641 Shattered windscreen642 Windscreen or rear window dirty
- 643 Rear vision mirror not adjusted correctly 644 No rear vision mirror
- 645 Windscreen or rear window misted/frosted 646 Inadequate or no sun-visors

- 647 Inadequate or no windscreen wipers 648 Cycle / Motorcycle visor, glasses, goggles or screen

650 Mechanical

- 651 Engine failure 652 Transmission failure (including chains and gears)
- 653 Accelerator or throttle jammed

660 Body or chassis

- 661 Body, chassis or frame (cycle, m/c) failure 662 Suspension failure
- 663 Failure of door catch or door not shut
- 664 Inadequate mudguards
- 665 Inadequate tow coupling 666 Inadequate or no safety chain
- 667 Bonnet catch failed
- 668 Wheel off 669 Broken axle
- 670 Inconspicuous colour
- 671 Blind spot 672 Seat belt / restraint failed
- 673 Air-bag failed to inflate (fully)

680 Load

- 681 Load interferes with driver
- 682 Not well secured or load moved 683 Over-hanging
- 684 Load obscured vision
- 685 Excess dimensions not adequately indicated 686 Over dimension vehicle or load
- 687 Load too heavy
- 688 Towed vehicle or trailer too heavy or incompatible

- 690 Miscellaneous vehicle 691 Emergency Vehicle attending emergency 692 Vehicle caught fire

 - 693 Being towed 694 Air-bag contributed to crash or injury
 - 695 Seatbelt / restraint absent or unusable 696 Dangerous goods

PEDESTRIANS

- 700 Walking along road 701 Not keeping to footpath

 - 701 Not keeping to iodipath 702 Not keeping to side of road 703 Not facing oncoming traffic 704 Not on outside of blind curve 705 Wheeled ped inconsiderate or dangerous on footpath

- 710 Crossing road 711 Walking heedless of traffic

 - 711 Walking needless of traffic 712 Stepping out from behind vehicles 713 Running heedless of traffic 714 Failed to use pedestrian crossing when one within 20 metres

- 715 Waiting on roadway for moving traffic 716 Confused by traffic or stepped back 717 Suddenly stepped onto pedestrian crossing 718 Not complying with traffic signals or school
- patrols 719 Misjudged speed and / or distance of vehicle

720 Miscellaneous

- 721 Pushing, working on or unloading vehicle 722 Playing on road or unnecessarily on road
- 723 Working on road 724 Wearing dark clothing
- 725 Vision obscured by umbrella or clothing 726 Child escaped from supervision

- 727 Unsupervised child 728 Sitting / lying on road 729 Pedestrian to /from school bus 730 Pedestrian behind reversing / manoeuvring vehicle
- 731 Overseas pedestrian
- 732 Pedestrian attention diverted eg cigarette, cell phone, music player

ROAD

- 800 Slippery 801 Rain 802 Frost or ice
 - 803 Snow or hail 804 Loose material on seal
- 805 Mud
- 806 Oil / Diesel / Fuel 807 Painted markings
- 808 Recently graded 809 Surface bleeding / defective

810 Surface

- 811 Potholed 812 Uneven
- 813 Deep loose metal 814 High crown

- 815 Curve not well banked 816 Edge badly defined or gave way
- 817 Under construction or maintenance 818 Unusually narrow
- 819 Broken glass

- 820 **Obstructed** 821 Fallen tree or branch
- 822 Slip or subsidence 823 Flood waters, large puddles, ford
- 824 Road works not adequately lighted 825 Road works not adequately signposted
- 826 Roadside object fell on vehicle 827 Object flicked up by vehicle

830 Visibility limited

- 831 Curve 832 Crest
- 833 Building
- 834 Trees
- 835 Hedge or fence 836 Scrub or long grass
- 837 Bank
- 838 Temporary obstruction, dust or smoke 839 Parked vehicle

- 840 **Signs and signals** 841 Damaged, removed or malfunction

 - 842 Badly located 843 Ineffective or inadequate

 - 844 Necessary 845 Signals turned off

850 Markings

- 851 Faded 852 Difficult to see under weather conditions

- 853 Markings necessary 854 Not visible due to geometry or vehicles 855 Old markings not adequately removed

860 Street lighting

- 861 Failed
- 862 Inadequate
- Glare on wet road
- 864 Pedestrian crossing not adequately lighted

870 Raised islands and roundabouts

- 871 Traffic island(s) difficult to see 872 Traffic island(s) Ineffective, badly located or
- designed 873 Cyclist squeeze point

MISCELLANEOUS

- 900 Weather
 - 901 Heavy rain

 - 902 Dazzling sun 903 Strong wind
- 904 Fog or mist 905 Snow, sleet or hail

- 910 Animals
 - 911 Household pet rushed out or playing 912 Farm animal straying
- 913 Farm animal attended, but inadequate warning or
- unexpected 914 Farm animal attended, but out of control
- 915 Wild animal
- 920 Entering or leaving land use 921 Roadside stall 922 Service station 923 Specialised liquor outlet 924 Take away foods 925 Shopping complex

- 926 Car parking building / area 927 Other commercial
- 928 Industrial site 929 Private house / farm 930 Other non-commercial 931 Mobile shop or vendor
- 999 Unknown