

road safety issues

July 2003

The Land Transport Safety Authority (LTSA) has prepared this road safety issues report. It is based on reported crash data and trends for the 1998–2002 period. The intent of the report is to highlight the key road safety issues and to identify possible ways to reduce the number of road deaths and injuries in the Franklin District.

Reported crashes on Franklin District local roads during 2002 numbered 12 fatal, 21 serious, 87 minor and 170 non-injury. These crashes resulted in the deaths of 13 people, with a further 32 seriously injured and 137 with minor injuries.

The estimated social cost of crashes on local roads is the highest it has been over the last five years. At the same time the cost of crashes on state highways within the district is at a five-year low (see chart below).

This report will focus on crashes that occurred on Franklin District local roads only, as state highway issues are covered in a separate report. Consequently the crash data used in the preparation of this report, with the exception of this front page, excludes those crashes that occurred on state highways.

The majority of these (local) crashes occurred on the open road, including all of the fatal and 18 of the 21 serious injury crashes last year. The estimated social cost of crashes on open roads was \$65.51 million over five years, compared with \$5.35 million in urban areas (a ratio of 12:1).

Major road safety issues

Franklin District

Alcohol and speed

Crashes on bends

Rural intersections

Nationally

Speed

Alcohol

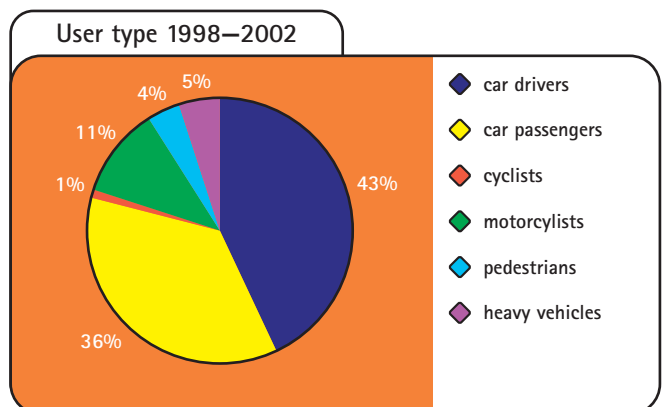
Failure to give way

Restraints

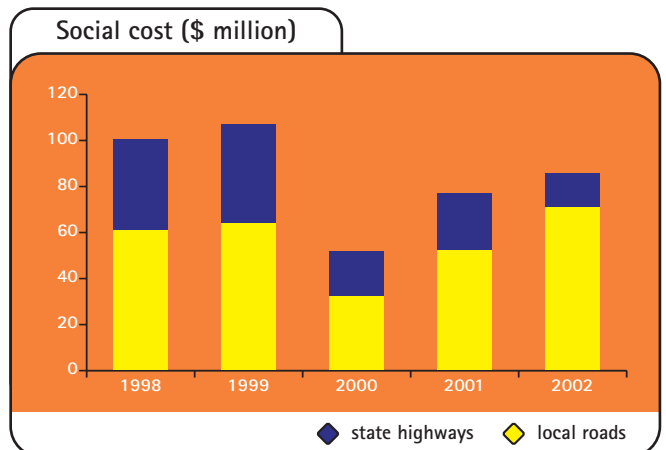
2002 road trauma for Franklin District

Deaths	16
Serious casualties	39
Minor casualties	171
Fatal crashes	15
Serious injury crashes	22
Minor-injury crashes	111
Non-injury crashes	239

Road deaths 1998–2002



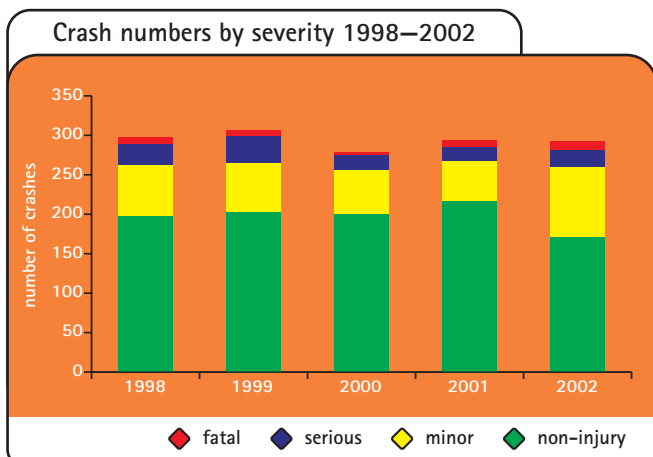
Estimated social cost of crashes*



* The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are expressed at June 2002 prices.

Overview of crashes

The total number of reported crashes in 2002 was on a par with the previous five years; however, the number of reported injury crashes is significantly up while non-injury crashes are down. Fatal crash numbers reached a five-year high last year.



Crash times

When crash times are categorised into four-hour blocks, the period that stands out above all others is Saturday afternoons from 4 pm to 8 pm with a total of 30 injury crashes. In addition, five of the seven highest crash periods were in this 4 pm to 8 pm period, and four of the seven worst periods were in the weekend.

Worst crash times

Day of week	Four hour blocks	Total
Saturday	4 pm - 7:59 pm	30
Wednesday	4 pm - 7:59 pm	23
Friday	4 pm - 7:59 pm	21
Saturday	noon - 3:59 pm	20
Sunday	noon - 3:59 pm	19
Sunday	4 pm - 7:59 pm	18
Thursday	4 pm - 7:59 pm	17

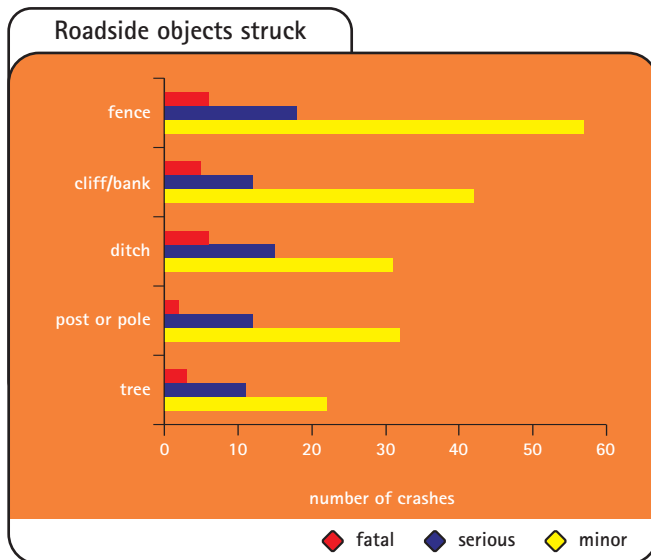
Grouping crashes by month of year reveals a strong seasonal pattern, with summer months the worst, especially December and March, followed by the winter months of June, July and August. The autumn months of April and May and spring months of September, October and November had the least crashes.

Dec	Mar	Feb	Jul	Jan	Aug
51	49	45	44	43	43
Jun	Oct	May	Apr	Nov	Sep
41	39	35	34	33	25

There is also a consistent trend of steadily increasing crash numbers towards the end of the week, with a low on Monday and a peak at Saturday.

Objects struck

The chart below shows the five most commonly struck objects, with the severity of crashes involving these objects. Special attention should be given to fatal and serious crashes when considering roadside hazards.



Licence status

District-wide, nine percent of drivers involved in crashes had no licence or the wrong class of licence, or were disqualified drivers. The table below shows the licence class of drivers involved in crashes.

Full	69%
Restricted	12%
Learner	8%
Never licensed	5%
Disqualified	2%
Expired	2%
Overseas	1%
Wrong class	1%

The following table shows proportions and numbers of some commonly used statistics.

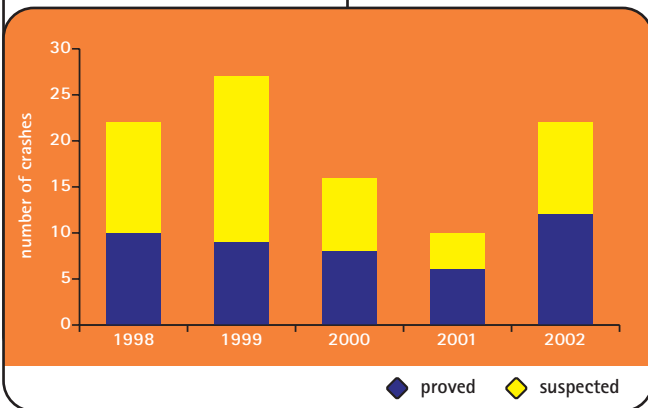
Wet	28%	Dry	72%
Light	63%	Dark	37%
Intersection	30%	Mid-block	70%
Open	70%	Urban	30%



Alcohol and speed

Approximately 20 percent of reported injury crashes are thought to be alcohol-related. Last year the number of drivers tested in excess of the breath or blood alcohol level, or those who refused the test, was up on the previous four years. This is a reversal of the apparent progress made last year.

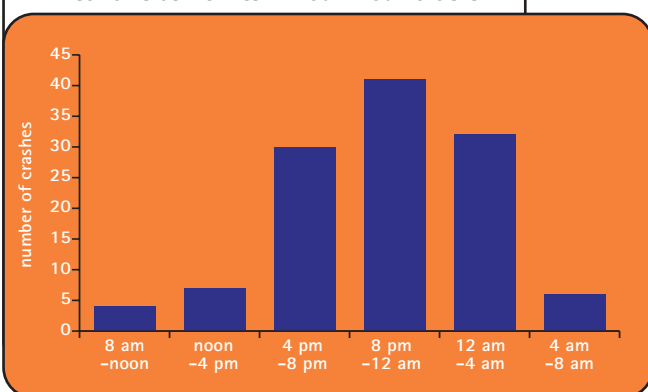
Alcohol crashes by year



For enforcement purposes the alcohol crash months and days are represented in the tables below, followed by a chart showing time of day.

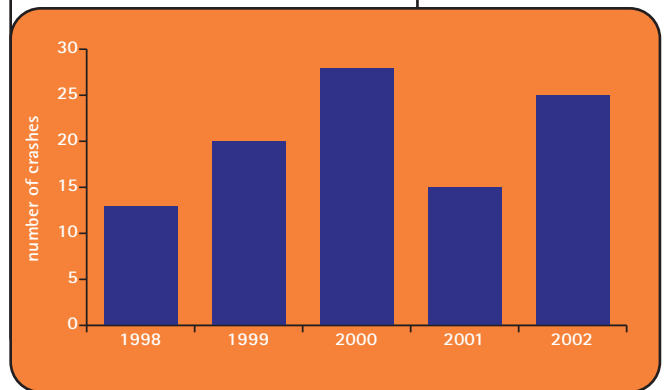
Jan	Feb	Mar	Apr	May	Jun	
14	10	12	6	13	7	
Jul	Aug	Sep	Oct	Nov	Dec	
16	11	4	7	5	16	
Mon	Tue	Wed	Thu	Fri	Sat	Sun
9	12	6	14	18	36	26

Alcohol crash times in four-hour blocks



Speed was thought to be a factor in 21 percent of reported crashes over the last five years. There is a rising trend in the number of speed-related crashes for Franklin, as shown in the chart below.

Speed too fast for conditions

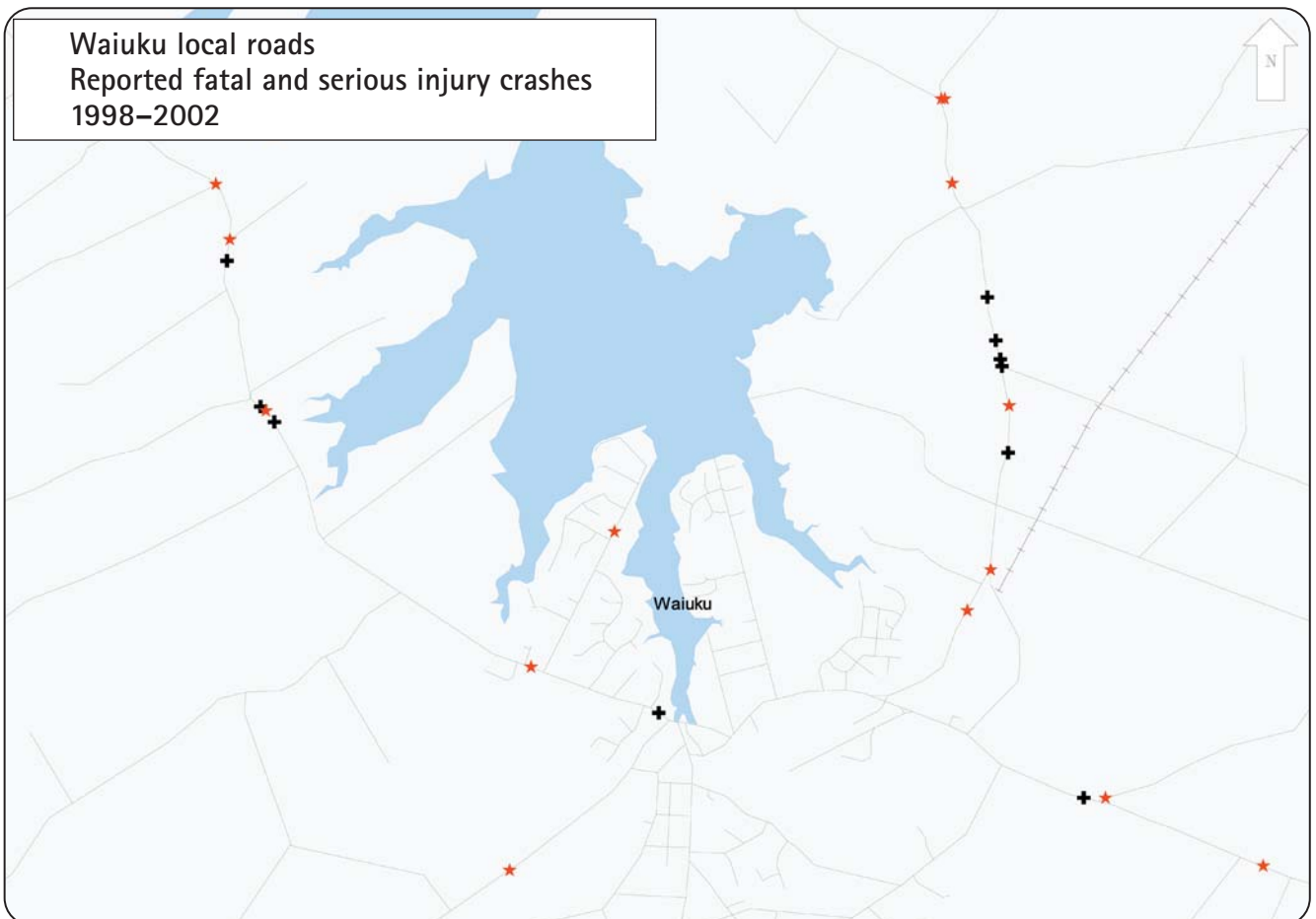
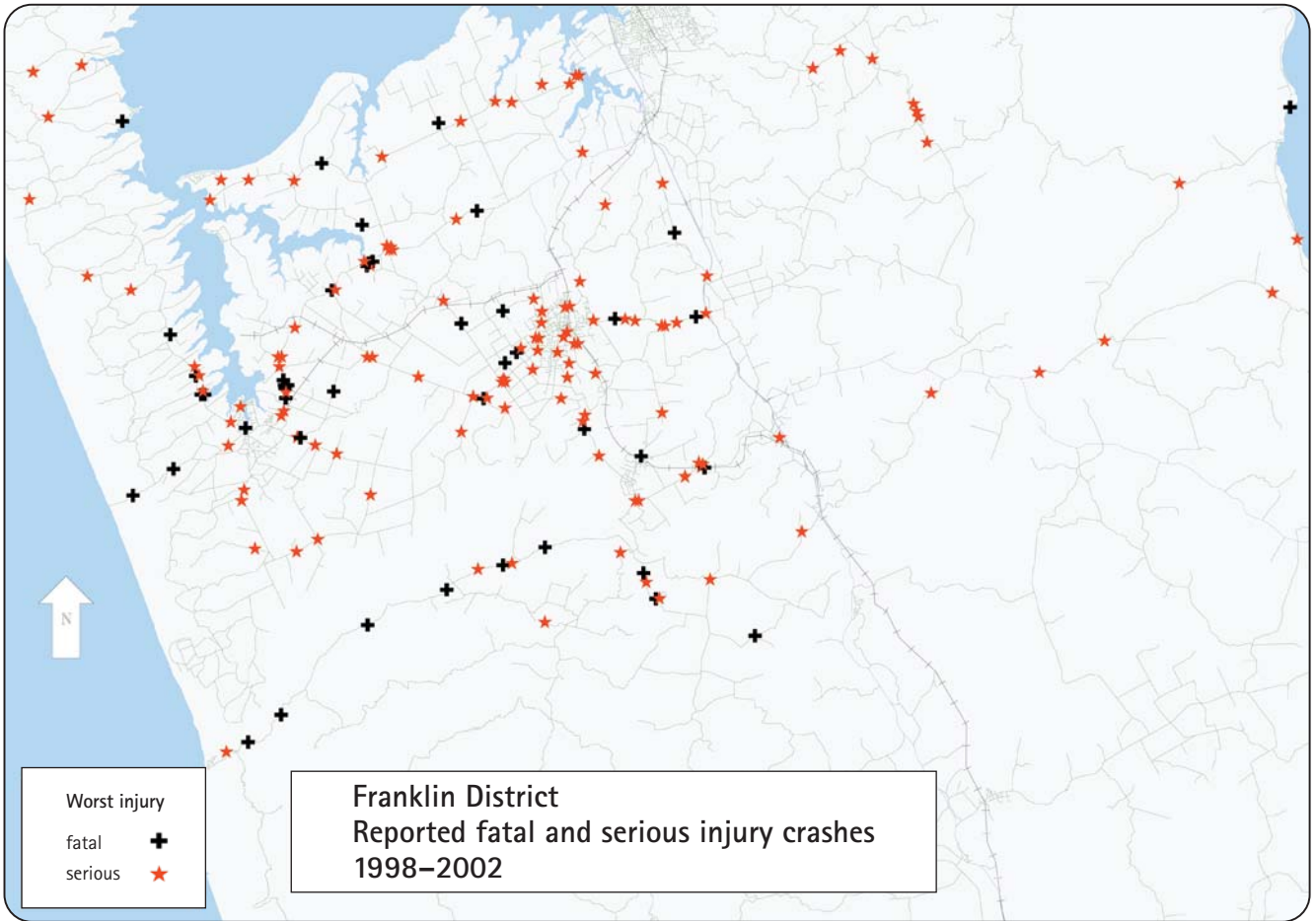


Further information on speed-related crashes:

- the worst months are December to April (average 14 to 16 crashes each)
- the quietest months are from August to November (seven to eight crashes each)
- Saturdays and Sundays are the worst days (30, 27 crashes)
- Mondays to Wednesdays are the quietest (15, 12 and 13 crashes)
- Thursdays and Fridays had 19 each
- the worst times of day were 4 pm to 8 pm (33 crashes), 8 am to noon (29 crashes) and 8 pm to midnight (25 crashes).

Recommended actions

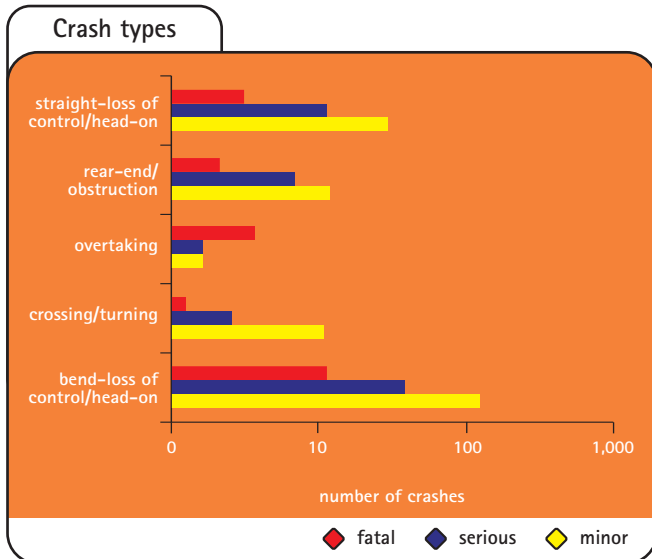
- Police should be allocating speed and drink-drive enforcement resources in proportion to risk times as part of risk-targeted patrol plans and road safety action planning.
- As many of the crashes coded 'too fast for the conditions' occurred on bends, applying engineering treatments to bends will bring down this type of crash. This should also bring down the number of alcohol-affected crashes.
- Support education campaigns aimed at improving awareness of appropriate speeds for the driving conditions.
- Continue to support drink-driving strategic enforcement campaigns, especially at high-risk times.
- Encourage community education and advertising campaigns targeting drink-drivers.





Crashes on bends

The chart below clearly demonstrates the predominance of loss of control type crashes at bends in the crash statistics. These crashes also accounted for the bulk of the social cost.



In urban areas this type of crash is significantly over-represented when compared with other districts of a similar nature.

There have been 40 reported urban injury crashes over the last five years (including 11 last year) compared with 176 in rural areas.

In urban areas:

- 39 percent occurred in wet conditions
- 53 percent occurred in dark or twilight conditions
- 29 percent involved alcohol
- 36 percent involved excess speed for the conditions.

In rural areas 2002 saw an increase in the number of crashes on bends against the predominantly downward trend since 1995.

In rural areas:

- 43 percent occurred in wet conditions
- 43 percent occurred in dark or twilight conditions
- 24 percent involved alcohol
- 31 percent involved excess speed for the conditions.



Recommended actions

- Conduct a safety audit/survey of curve delineation, signposting, shoulder width, surface friction, curve delineation and street lighting of curves.
- Monitor skid resistance and crash numbers and review intervention levels for skid resistance on bends.
- Consider lane markings around curves, ensuring edge lines and centre lines are provided.
- Encourage shoulder widening and provide sealed road shoulders, where appropriate.
- Ensure advisory signs are appropriate, consistent and in the correct position.
- Maintain good road surfaces and drainage.
- Support campaigns on adjusting speed for different driving conditions.
- Support enforcement targeting high-risk areas.



Rural intersections

Twenty-four crashes occurred at rural intersections last year. This was the highest number reported over the last 10 years. At 28 percent of crashes, it is also way above the national and peer group average of 17 percent. Last year's figure was over twice the previous year's, although numbers have been fluctuating wildly and a clear trend is not discernible.

Of these crashes at rural intersections:

- 38 percent occurred at junctions with no form of additional control
- 36 percent were at junctions with a compulsory Stop control
- 26 percent were at junctions with a Give Way control
- 53 percent were at T junctions
- 32 percent were at crossroads
- 12 percent were at Y junctions.



Recommended actions

A concerted effort should be made to bring down the instances of this type of crash in line with national figures.

- Identify and upgrade problem intersections, or perform a safety audit of existing intersections if no particular sites stand out.
- Consider the following engineering options:
 - installation of roundabouts or splitter islands
 - removal of vegetation to improve visibility
 - upgrading signs and markings.
- Initiate and support campaigns on the need to give way at intersections, in support of the new LTSA television advertising on the issue.

New Zealand Road Safety Programme

Reducing road trauma involves a multi-pronged approach, which includes education, engineering and enforcement. The New Zealand Road Safety Programme (NZRSP) is the primary planning and funding programme for road safety activity undertaken by the New Zealand Police, LTSA and community groups. Transfund New Zealand provides funding to Transit New Zealand and local authorities for roading projects through its National Land Transport Programme.

Community projects

Through the Community Road Safety Programme (CRSP) the NZRSP provides funding for community development and community programmes to support road safety and to bring about positive and sustainable changes in community attitudes and behaviours. CRSP funding of community initiatives aims to encourage local involvement and ownership of road safety issues, and to target local resources and effort to local risks. This year's review of the programme initiates a re-focus of effort and funding into community development. This involves working with and within different communities of people to assist them in becoming aware of their own local road safety issues and developing solutions to achieve better road safety outcomes.

Road policing

Police enforcement hours to support community projects are now allocated to police community services hours rather than to individual projects. The delivery of these hours to support community initiatives will need to be negotiated by the road safety co-ordinator.

In 2003/2004 the Police are funded to deliver 18,215 hours of road policing on roads in the Franklin District as follows:

Project	Police hours
Strategic – alcohol/drugs, restraints, speed and visible road safety enforcement	12,690
Traffic management – crash attendance events, incidents, emergencies and disasters, traffic flow supervision	4,050
School road safety education	455
Police community services	1,020

Road environment

The LTSA's crash reduction monitoring database shows that works implemented as a result of crash reduction studies have reduced crashes at fully implemented study sites by 41 percent on Franklin District (local) roads. This is a heartening achievement especially considering the average reduction nationally is 35 percent.

Recommendations from recent studies should be implemented and further annual studies undertaken which could consider mass action treatments to reduce crash problems.

References

Franklin District Road Safety Report 1998–2002

LTSA Crash Analysis System

Where to get more information

For more specific information relating to road crashes in the Franklin District, please refer to the 1998 to 2002 Road Safety Report or the Land Transport Safety Authority Crash Analysis System, or contact the people or organisations listed below:

Contacts

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