# Crash Analysis Report

# Ryde LGA

# 2001-2005

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**February 2007**

**PART 1**

## Introduction

The City of Ryde is committed to making its roads a safe environment to be. Better understanding of road safety issues and solutions is important in achieving our goal.

In the City of Ryde there are a number of concerns when dealing with road safety. Promoting community-based action underlies the issues that will emerge from this crash analysis report, at the local level.

## The Challenge

The City of Ryde commenced involvement with the NSW Local Government Road Safety Program in 1999 with the employment of a full-time Road Safety Officer. Since 2004, the Road Safety Officer position has moved from Engineering to Community Services and the position has been renamed to Road and Community Safety. The challenge is to address the road safety issues within Ryde, in conjunction with community safety issues, by raising community awareness through enforcement, education and engineering efforts to make the roads a safer place to be.

## Objectives of Action Plan

Road safety is an issue for all members of the Ryde community. The City of Ryde is committed to road safety and the Road Safety Action Plan will help to ensure our objectives are met. These objectives are stated in each road safety project initiative outlined in the Action Plan. They have been decided, based on the crash data evaluation of the City of Ryde. The activities of the Road Safety Action Plan aim to reduce the casualties on Ryde roads by educating the community and thereby changing driver and pedestrian behaviour.

The actions outlined in the Plan reflect both the commitment of the State Government and that of the City of Ryde.

# PART 2                     **Ryde Demographic Data**

The City of Ryde has an area of 40.651kms$^2$ and lies in the central northern part of the Sydney Metropolitan area, approximately 12kms from the centre of Sydney.
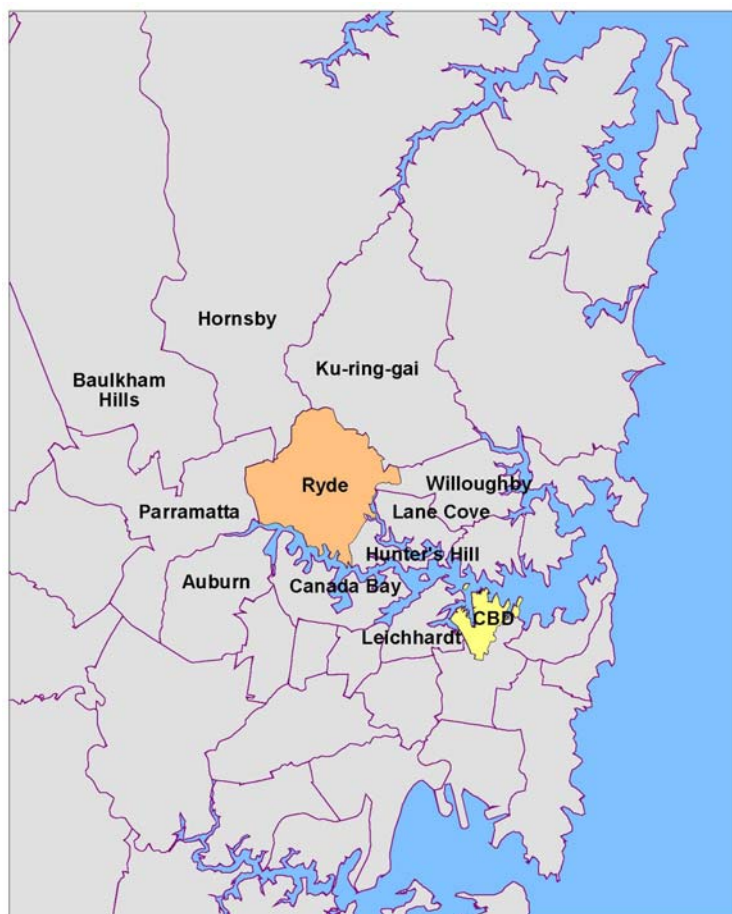


**Figure 1: The location of the City of Ryde**

The City occupies most of the divide between the Parramatta and Lane Cove rivers, and has 16 suburbs within its boundaries. The suburbs that make up the City of Ryde include Chatswood West, Denistone, Denistone East, Denistone West, East Ryde, Eastwood, Gladesville, Macquarie Park, Marsfield, Meadowbank, Melrose Park, North Ryde, Putney, Ryde, Tennyson Point, and West Ryde.

The traditional Aboriginal owners of the land are the Wallumedegal clan of the Dharug tribe. Aboriginal sites in the City are predominantly located around the foreshores of the Parramatta River and Lane Cove River.
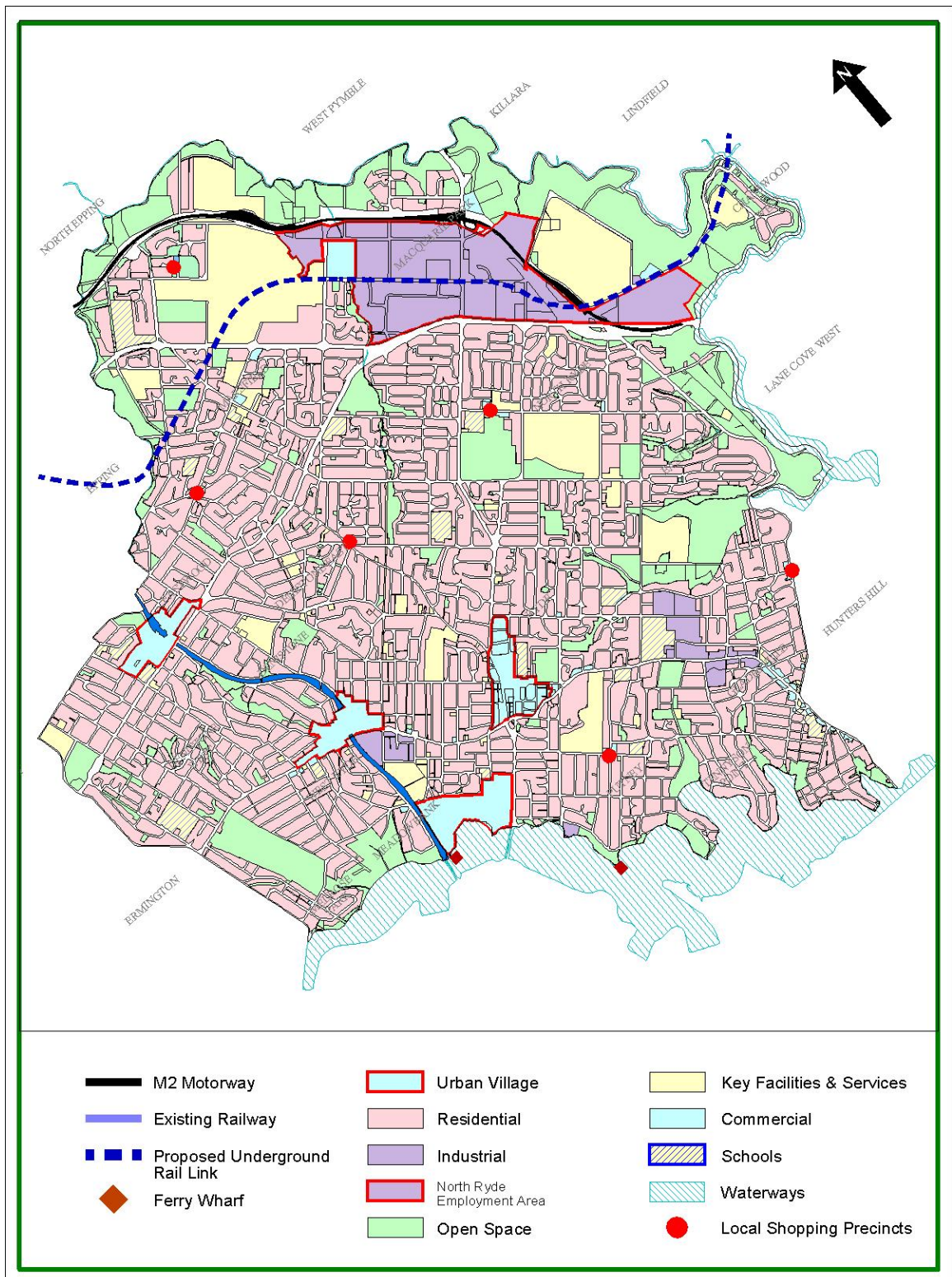
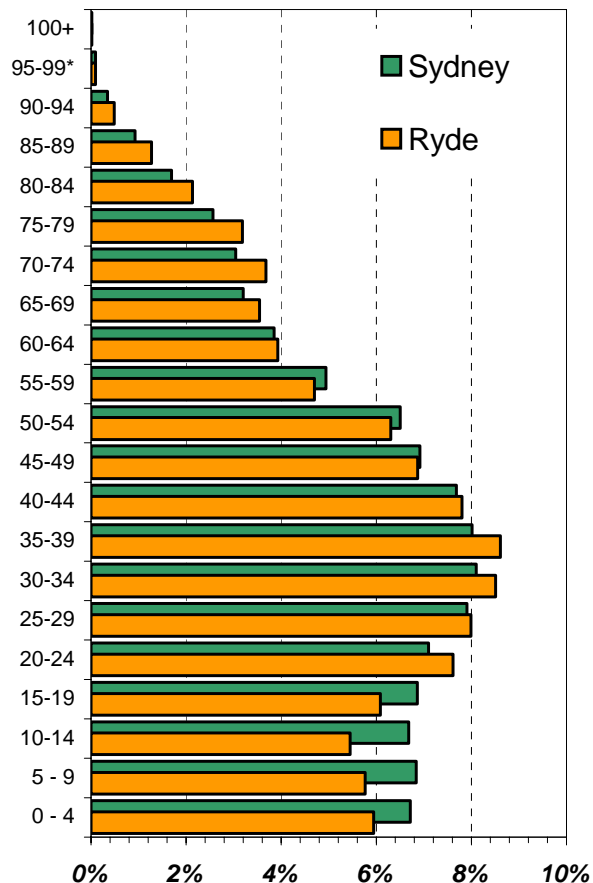**Figure 2: Structure Plan of the City of Ryde**

**The People**

The residential population for the City of Ryde, as at the 2001 Census, was estimated at 95 744. The largest age group in the community is adults in their prime working age from 25–54 years who make up 46% of the population.

Notable changes from the 1996 Census among age groups are, that the adults age group (25–54) increased by 1 566 and the older persons (75+) age group increased by 902, while the mature adults age group (55–74) and pre-school age group (0–4) decreased.
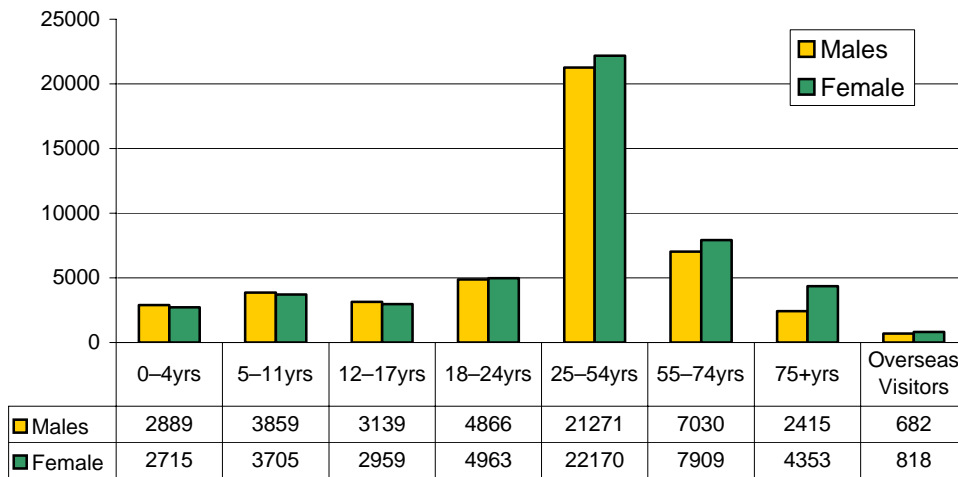
Of the population, 41% are married couples, 17% are dependant children under 15 years and 10% live alone. The City of Ryde has a stable community compared to the rest of Sydney with 56% of residents over the age of five living here prior to 1996.

In the City in 2001, there were 46 152 males and 49 592 females.

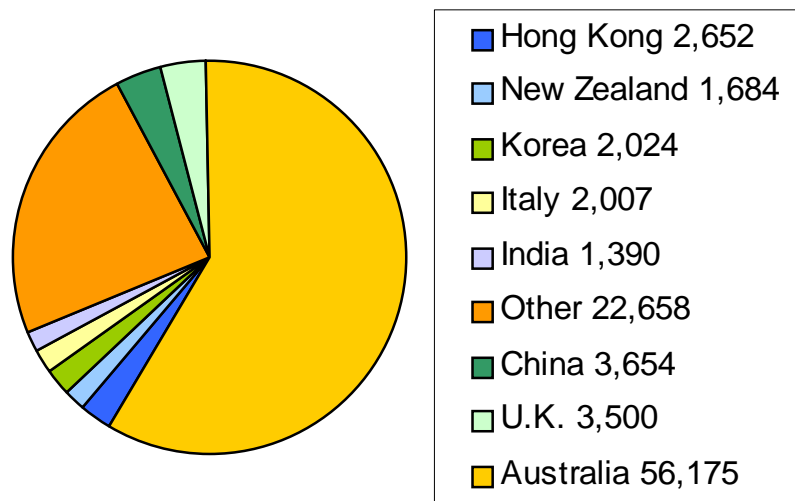The City's Aboriginal and Torres Strait Islander population in 2001 was 227 persons.



**Graph 1: Relative size of age groups (ABS 2001 Census Population and Housing)**

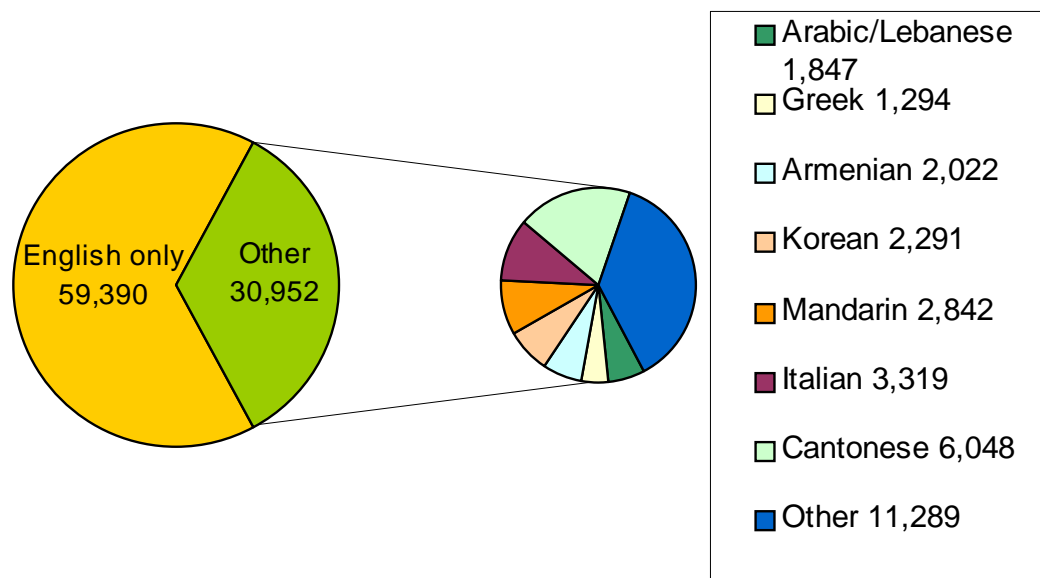| | 0–4yrs | 5–11yrs | 12–17yrs | 18–24yrs | 25–54yrs | 55–74yrs | 75+yrs | Overseas Visitors |
|---|---|---|---|---|---|---|---|---|
| Males | 2889 | 3859 | 3139 | 4866 | 21271 | 7030 | 2415 | 682 |
| Female | 2715 | 3705 | 2959 | 4963 | 22170 | 7909 | 4353 | 818 |

**Graph 2: Relative size of age groups (ABS 2001 Census Population and Housing)**

In 2001, some 63% of the City's people were born in Australia and 37% born overseas. The most common overseas birthplaces were China, U.K., Hong Kong and Korea.

People who spoke a language other than English at home made up 34% of the population. The most common of these languages were Cantonese, Italian, Mandarin, Korean, Armenian, Arabic/ Lebanese and Greek.



- Hong Kong 2,652
- New Zealand 1,684
- Korea 2,024
- Italy 2,007
- India 1,390
- Other 22,658
- China 3,654
- U.K. 3,500
- Australia 56,175

**Graph 3: Country of birth (ABS 2001 Census Population and Housing)**

Arabic/Lebanese 1,847

Greek 1,294

Armenian 2,022

Korean 2,291

Mandarin 2,842

Italian 3,319

Cantonese 6,048

Other 11,289

English only 59,390

Other 30,952

**Graph 4: Language spoken at home (ABS 2001 Census Population and Housing)**

(City of Ryde – City Vision 2022, Draft)

**The Cars**

Table A, identifies the number of Vehicles registered in Ryde LGA. Approximately 74% of the total fleet are passenger vehicles, followed by off-road passenger vehicles or 4WDs (12%). There has been an increase in 4WD since 2005.

**Table A: Number of vehicles registered in Ryde LGA as at 30 June 2005 and 2006**

| Passenger Vehicles | Off-road Passenger Vehicles | Small Buses | Buses | Mobile Homes | Motor-cycles | Light Trucks | Heavy Trucks | Prime Movers | Light Plant | Heavy Plant | Small Trailers | Trailers | Other Vehicles | Size of Vehicle Fleet |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 53614 | 5583 | 277 | 140 | 42 | 1068 | 6432 | 396 | 33 | 91 | 34 | 3351 | 1042 | 4 | 72107 |
| 51568 | 8640 | 344 | 1366 | 42 | 1176 | 5863 | 371 | 18 | 73 | 25 | 3299 | 1034 | 5 | 73824 |

**Table B: Licence holders in Ryde by licence type as at 30 June 2005 and 2006**

| Learner | P1 | P2 | Unrestricted | Total |
|---|---|---|---|---|
| 4078 | 2035 | 2726 | 58347 | 67186 |
| 5874 | 2712 | 4050 | 76675 | 89311 |

Table B shows the number of licence holders in Ryde by licence. There has been an increase in the number of licence holders, including an increase in the number of inexperienced drivers on their L and P-plates.

**PART 3**                         **Ryde Crash Analysis 2001- 2005**


The following information provides a statistical overview of the road crash data for Ryde LGA between 2001 and 2005. For definitions and explanatory notes please see Appendix 1.
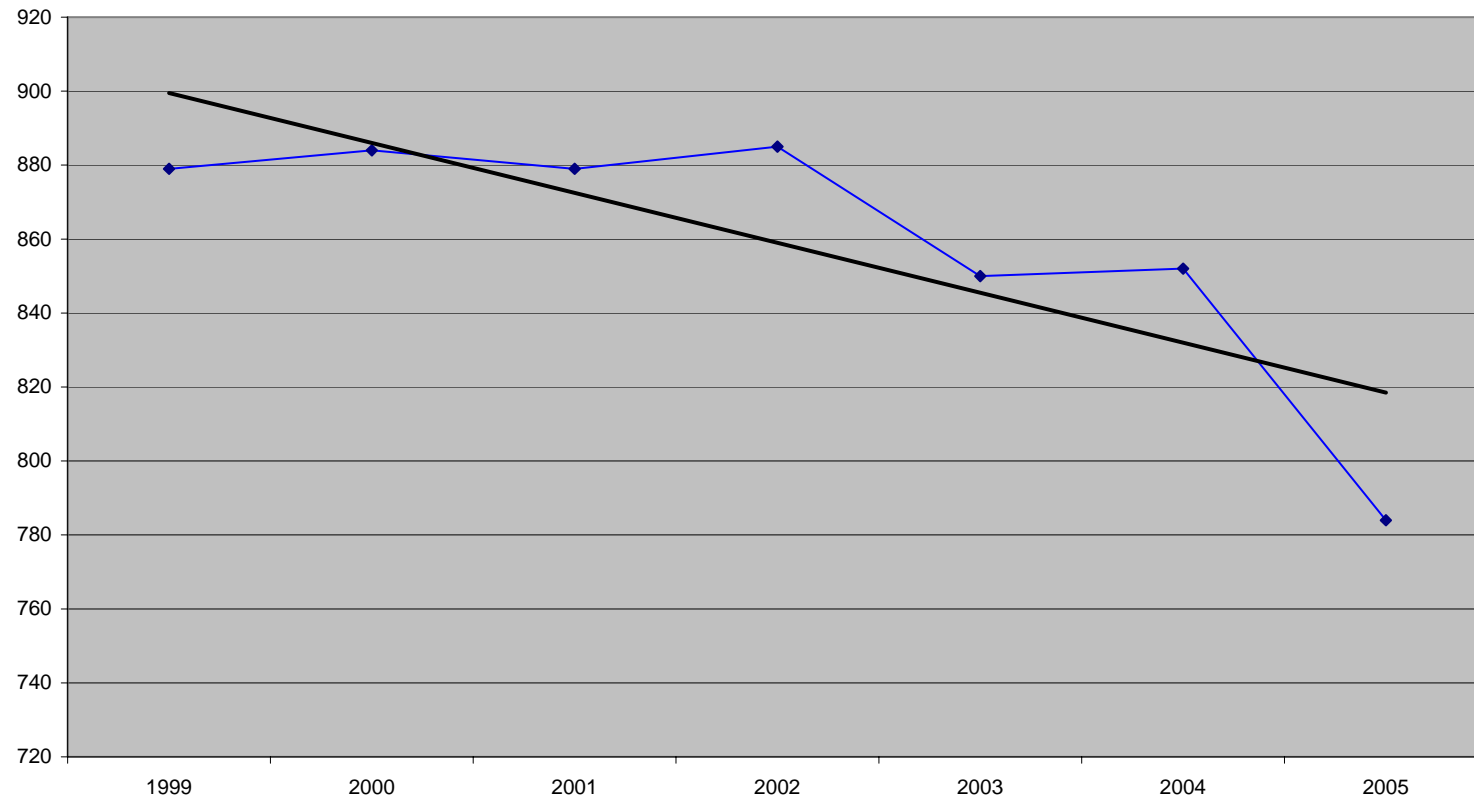
**Graph: Total Number of Crashes in Ryde 2001-2005**

## 1. CRASHES

Table 1 and the graph above identifies the total number of crashes in Ryde LGA by fatal/injury/non-casualty classification between 2001 and 2005. The trend shows that the total number of crashes is decreasing, however, fatal crashes have increased. There has been a dramatic decrease in crashes since 2004.

**Table 1. Ryde LGA number of crashes by fatal/injury/non-casualty classification 2001-2005**

|  | 2001 | 2002 | 2003 | 2004 | 2005 | 5 year Av. |
|---|---|---|---|---|---|---|
| **Fatal Crashes** | 5 | 5 | 6 | 4 | 7 | 5.4 |
| **Injury Crashes** | 338 | 355 | 298 | 309 | 268 | 313.6 |
| **Non-casualty Crashes** | 536 | 525 | 546 | 539 | 509 | 531 |
| **Total Crashes** | 879 | 885 | 850 | 852 | 784 | 850 |

## 2. CASUALTIES

Table 2 shows the total number of casualties in Ryde LGA by killed/injured classification between 2001 and 2005. The total number of casualties for 2005 is at its lowest since 2001, with 341 casualties in 2005 compared to a high of 433 casualties in 2001 (-92). The trend shows a decline in the number of casualties. Unfortunately fatalities have risen again.

**Table 2. Ryde LGA number of casualties by killed/injured classification 2001-2005**

|  | 2001 | 2002 | 2003 | 2004 | 2005 | 5 yr Av. |
|---|---|---|---|---|---|---|
| **Killed** | 5 | 6 | 7 | 4 | 7 | 5.8 |
| **Injured** | 428 | 419 | 373 | 355 | 334 | 381.8 |
| **Total** | 433 | 425 | 380 | 359 | 341 | 387.6 |

## 2a.    Casualties by age group

Graph 5 shows the distribution of casualties by age group across Ryde LGA, Sydney and NSW for 2005. Ryde has a slightly higher percentage of casualties than NSW and Sydney for the 26-39, 40-59 and 60+ year age group, however a lower percentage of casualties in the 0-25 year age group. It is interesting to note that in 2004, the 17-25 year age group casualty was higher in Ryde, however this has since changed.
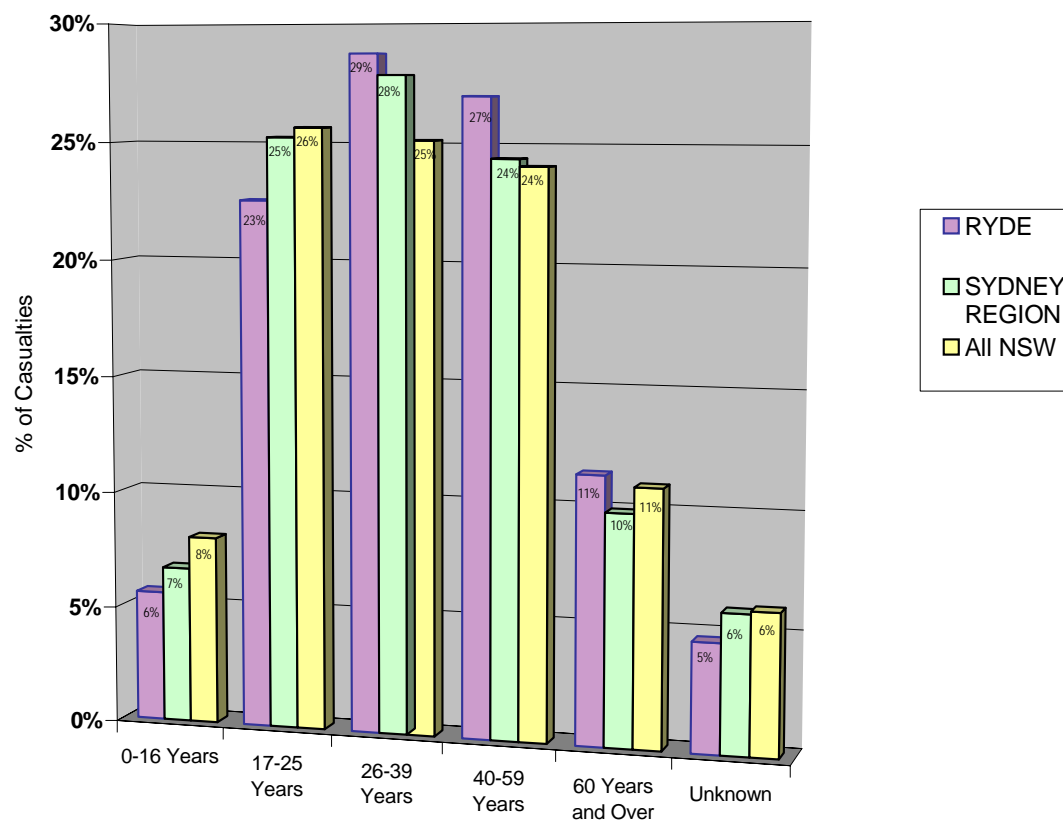


**Graph 5: Distribution of casualties by age group and region 2005**

Graph 6 displays the number of casualties in Ryde by age group in 2005. The majority of casualties in Ryde, and motor vehicle controllers involved in all crashes, occurred in the 26-39 year age group. It is important to note however that there is a smaller age gap in the 17-25 year group and this statistic remains relatively high.
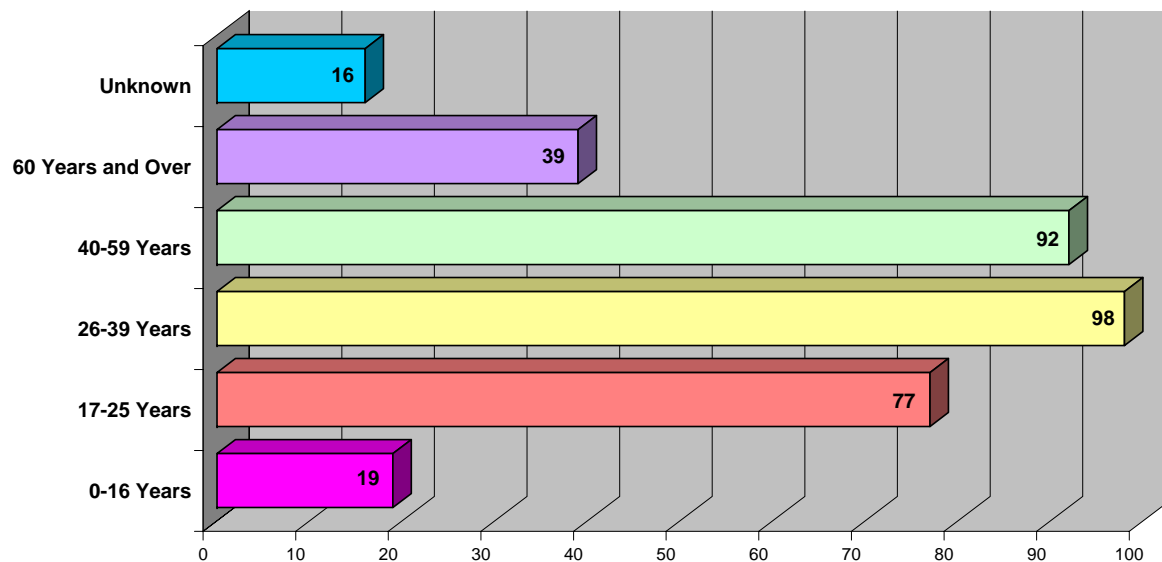


**Graph 6: Casualties in Ryde LGA by age group 2005**

**2b.    Casualties by time period**

Graph 7 describes the number of casualties in Ryde by time periods, 2005. The greatest number of casualties occurred from Monday to Friday between 9am and 3pm.
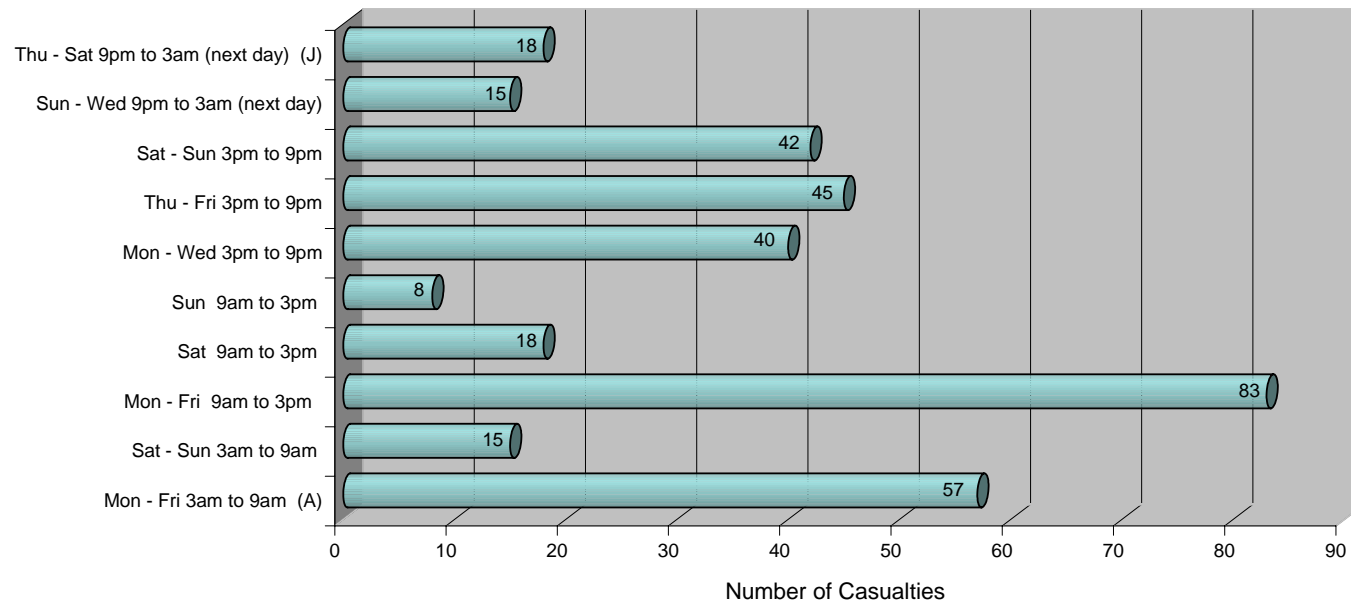


**Graph 7: Number of casualties by time period in Ryde 2005**

## 3.    CONTRIBUTING FACTORS

This section discusses crash statistics in relation to contributing factors, notably speed, alcohol and fatigue.

### 3a.    Comparisons by region

Graph 8 shows the percentage of all crashes in Ryde, Sydney region and NSW according to contributing factors in 2005. As can be seen, NSW has the highest percentage of crashes with speed involvement, whereby 17% of all crashes in NSW involved speed. Speed is the highest contributing factor for Ryde, with 10% of all crashes involving speed, followed by fatigue (6%) and alcohol (2%). Ryde has the lowest percentage of crashes compared to NSW and Sydney across all contributing factors.
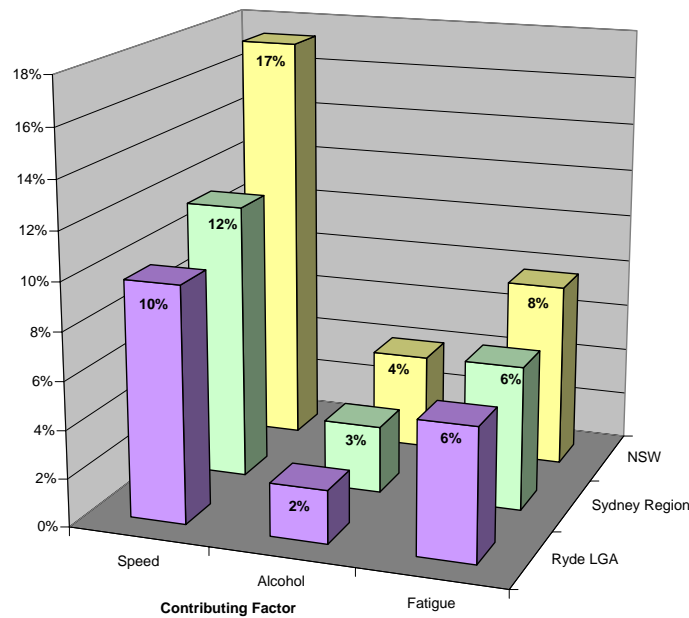


**Graph 8: Crash percentage and contributing factors between Ryde, Sydney region and NSW 2005**

## 3b. Comparisons within Ryde 2001-2005

Graph 9 looks at the percentage of crashes with contributing factors between 2001 and 2005 in Ryde. As mentioned speed is the highest contributing factor to crashes in Ryde, followed by fatigue and alcohol. The trend shows a decrease in the number of  alcohol-related crashes since 2001, however there has been quite an increase in the number of fatigue related crashes since 2004 (+12 crashes).
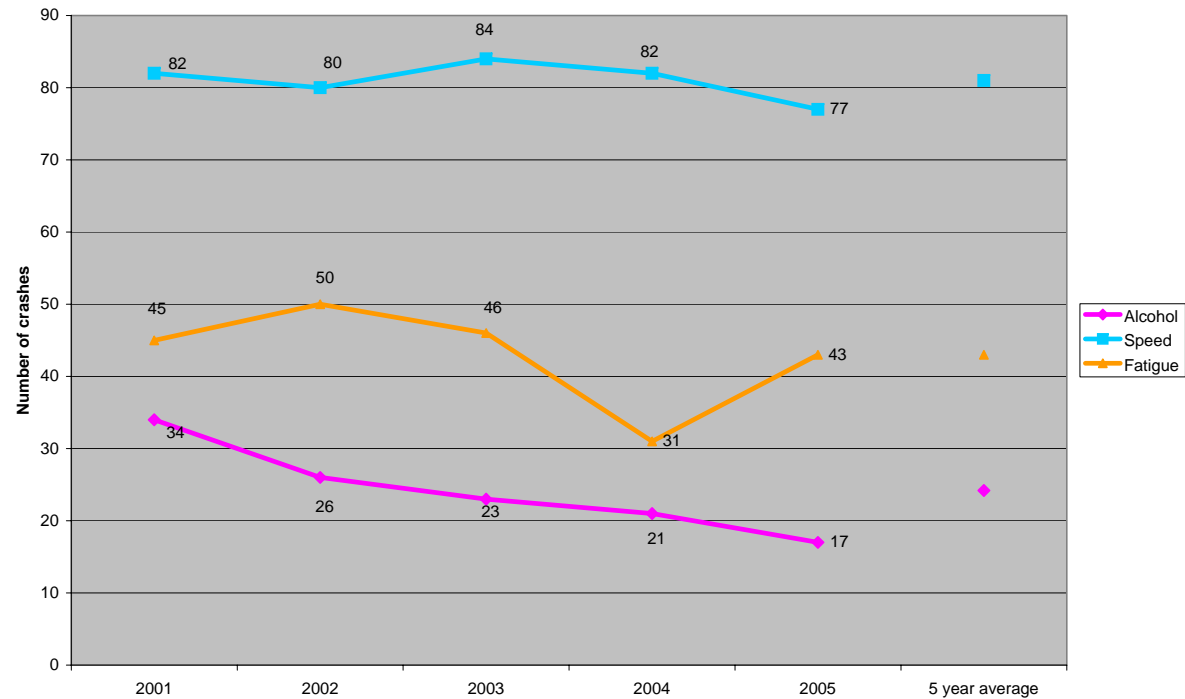


**Graph 9: Number of all crashes according to contributing factors 2001-2005 Ryde**

## 3c. Comparisons in Ryde by time period and contributing factor

**McLean Time Periods**

| A | Monday – Friday 3am – 9am |
|---|---|
| B | Saturday – Sunday 3am – 9am |
| C | Monday – Friday 9am – 3pm |
| D | Saturday 9am – 3pm |
| E | Sunday 9am – 3pm |
| F | Monday – Wednesday 3pm – 9pm |
| G | Thursday – Friday 3pm – 9pm |
| H | Saturday – Sunday 3pm – 9pm |
| I | Sunday (pm) – Thursday  (am) 9pm – 3am (the next day) |
| J | Thursday (pm) – Sunday (am) 9pm – 3am (the next day) |
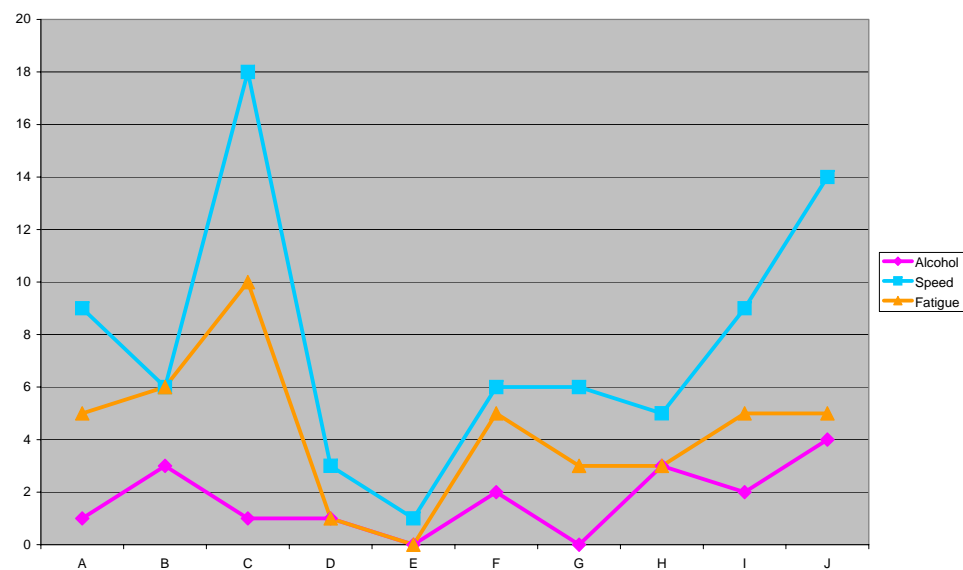


**Graph 10: Fatal or injury crashes by contributing factor and time period Ryde 2005**

Graph 10 shows the fatal or injury crashes by contributing factor and time period in Ryde 2005. The time periods are specified in the table above according to McLean Time Periods.

Graph 11 shows the number of motor vehicle controllers involved in crashes in Ryde according to contributing factors and age group for 2005. The greatest number of motor vehicle controllers involved in speeding related crashes occurred in the 17-25 year age group. The greatest number of motor vehicle controllers involved in alcohol related crashes were aged between 26-39 years.
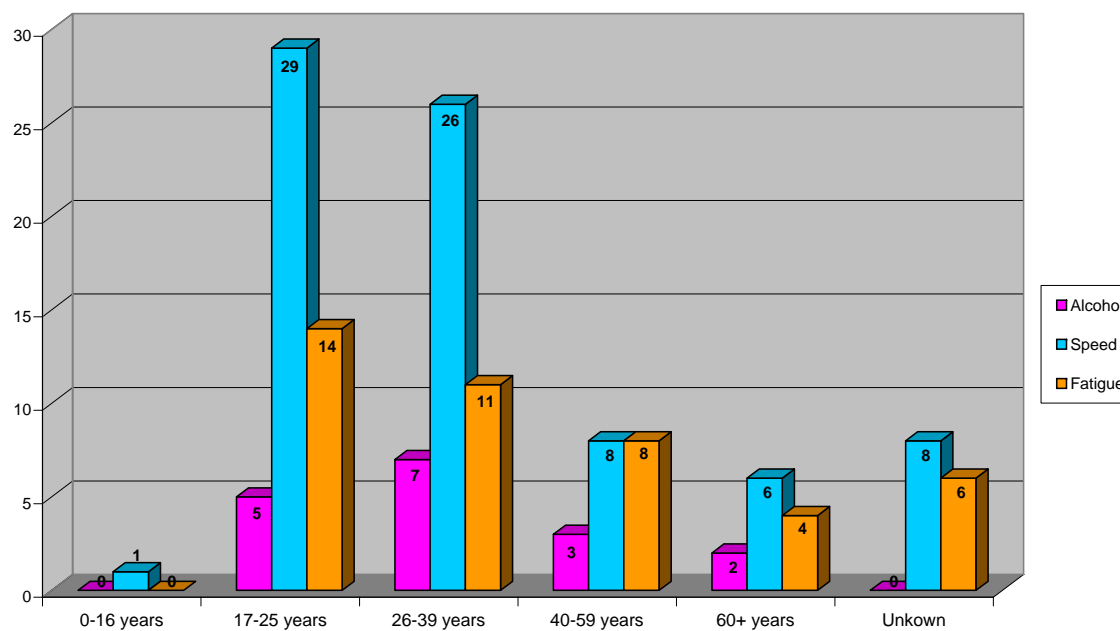


**Graph 11: Number of motor vehicle controllers involved in crashes by contributing factor and age group Ryde 2005**

### 3ci. Crashes involving speed
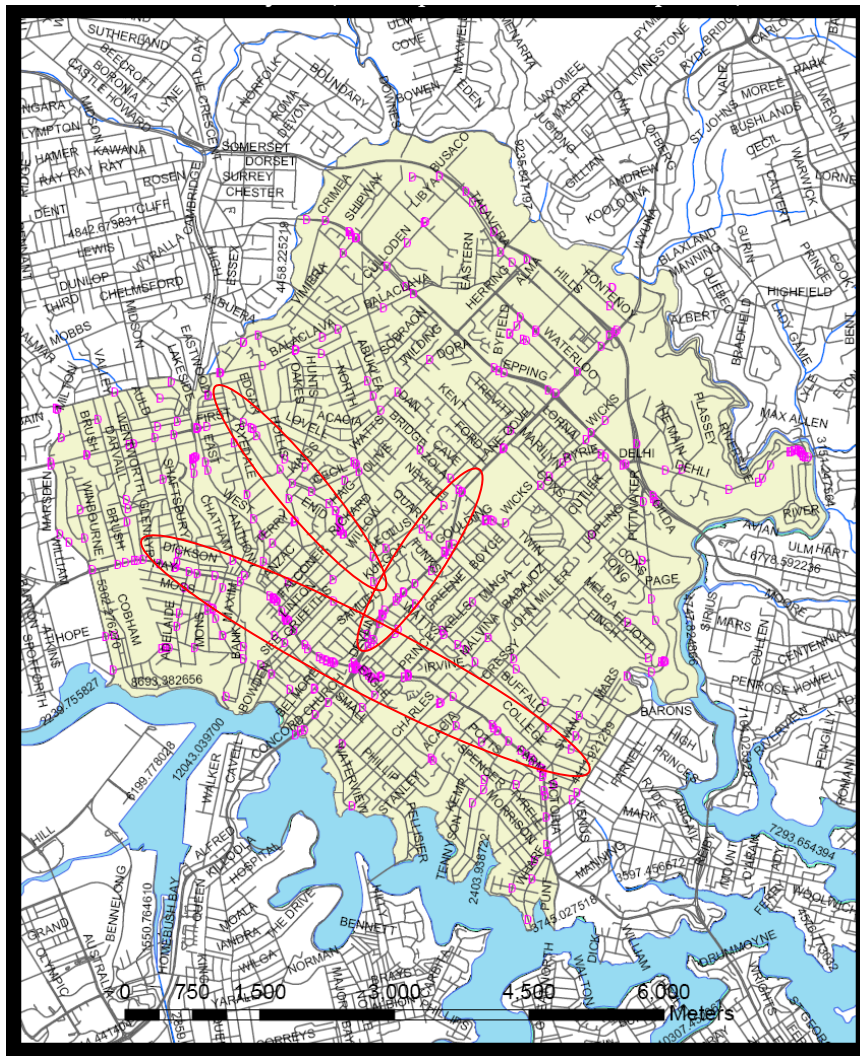


In 2005, there were 77 crashes involving speed in Ryde, 21 of which were injury crashes and one which was a fatal crash, contributing to 8% of the total number of fatal or injury crashes. There were 38 speeding related casualties in Ryde in 2005. The majority of casualty crashes involving speed in 2005 occurred during the week, Monday to Friday between 9am and 3pm (see Graph 10). Speeding related crashes have remained relatively stable since 2001. The highest number of speeding crashes by motor vehicle controller occurred in the 17 to 25 year age group (29), whereby 38% of all speeding related crashes involved 17-25 year old motor vehicle controllers (see graph 11). Approximately x% of the total number of Motor Vehicle Controllers involved in speeding related crashes were male.

The map to the left identifies all the speeding related crash sites in Ryde between 2001 and 2005. There were a large number of speeding related crashes that occurred on Victoria Rd, Blaxland Rd and Lane Cove Rd, as outlined in red.

### 3cii. Crashes involving alcohol

In 2005, alcohol was a factor in 17 crashes, resulting in 8 casualties in Ryde. In 2005, alcohol contributed to approximately 2% of the total number of fatal or injury crashes in Ryde. In 2005 the most common time of day where the highest number of casualty crashes were recorded involving alcohol, occurred from late evening until early morning (from 9pm until 3am), particularly from Thursday evening to Sunday morning (see graph 10). The majority of motor vehicle controllers involved in alcohol-related crashes in Ryde in 2005 were aged between 26-39 (7), followed by 17-25 years of age (5). Approximately x% of the total number of motor vehicle controllers involved in alcohol related crashes were male.

### 3ciii. Crashes involving fatigue

In 2005, there were 43 crashes involving fatigue in Ryde, resulting in 30 casualties. There were no fatalities. The majority of fatigue-related injury crashes in 2005 occurred during the week, Monday to Friday between 9am and 3pm (see Graph 10). Figures indicating the time of day and fatigue involvement in casualty crashes have been variable since 2001, and there is no clear pattern to suggest there is one significant time period when these crashes may occur. The majority of motor vehicle controllers involved in fatigue-related crashes were aged between 17-25 years of age (32%) [see graph 11]. Approximately x% of motor vehicle controllers involved in fatigue related crashes in 2005 were male. In 2004 only 7 casualties were recorded however in 2005 this number has risen to 30.

The map to the right identifies the driver fatigue related crashes in Ryde between 2001 and 2005. Fatigue related crash locations in Ryde and are relatively evenly spread across the LGA. It must be noted that there may be discrepancies in police recordings of what constitutes a fatigue-related crash and therefore figures may not be a true and accurate recording of this factor.
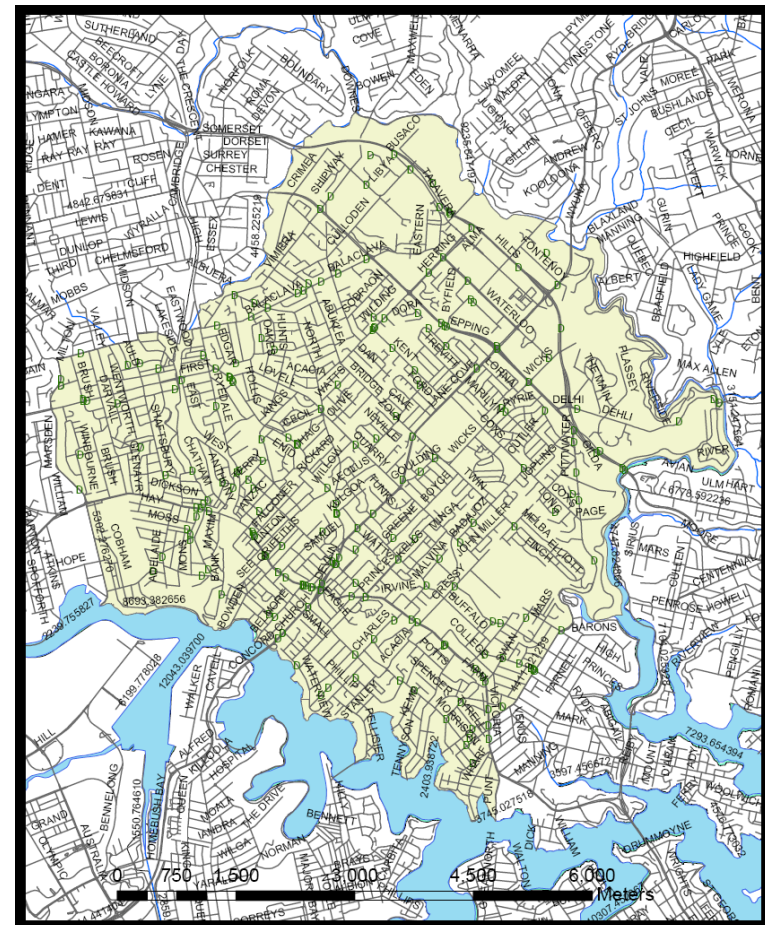
## 4.    ROAD USER TYPE

This section will now examine crash statistics and road user type.

Table 3 summarises the percentage of casualties by road user class, as a total of all casualties, between 2001 – 2005, including 2005, for NSW, Sydney region and Ryde LGA. The following is representative of the 5 year average and 2005 data (5 year average data is shown).
- Ryde LGA has a higher percentage of motor vehicle driver casualties (60%) compared to Sydney region (55.3%) and NSW (54.9%) for the 5 year average and in 2005.
- When looking at motor vehicle passenger and pedal cyclist casualties, Ryde LGA has a lower percentage (16.8% and 3.7% respectively) of casualties in each group compared to NSW (23.9% and 4.2% respectively) and Sydney region (21.9% and 4.4% respectively). However, while the percentage of passenger casualties in 2005 is below the average for Sydney and NSW, it is above the average in Ryde.
- Ryde's percentage of motorcyclist casualties (8%) is slightly higher than both NSW (7.7%) and Sydney region (7.1%).
- The percentage of pedestrian casualties for Ryde LGA (11.3%) is slightly lower than Sydney region (11.8%) but higher than NSW (9.3%). One reason for this may be that Ryde LGA has a similar demographic pattern to Sydney, compared to NSW as a whole, with a denser population.

Followed by the percentage of motor vehicle driver and motor vehicle passenger casualties (60.1% and 16.8% respectively) pedestrians are the third highest casualty group in Ryde LGA, at 11.3%, and is above the 5 year average in 2005.

**Table 3. Percentage of casualties by road user class 2001-2005 average, and 2005**

|  | NSW | | Sydney Region | | Ryde LGA | |
|---|---|---|---|---|---|---|
|  | 5 yr avge | 2005 | 5 yr avge | 2005 | 5 yr avge | 2005 |
| **Motor Vehicle Driver** | 54.9% | 54.9% | 55.3% | 55.5% | 60.1% | 58.1% |
| **Motor Vehicle Passenger** | 23.9% | 23.0% | 21.5% | 20.4% | 16.8% | 17.9% |
| **Motorcyclist** | 7.7% | 8.4% | 7.1% | 7.6% | 8.0% | 8.2% |
| **Pedal Cyclist** | 4.2% | 4.7% | 4.4% | 4.6% | 3.7% | 3.8% |
| **Pedestrian** | 9.3% | 9.0% | 11.8% | 11.9% | 11.3% | 12.0% |

Table 4 examines the total number of casualties by road user class from 2001 to 2005. While the figures show the total number of pedestrian and motorcyclist casualties are above the 5-year average, and numbers are at their highest in 2004, these numbers have decreased in 2005, with pedestrian and motorcyclist casualties now being at their lowest in the 5 year period. The number of casualties by road user class in 2005 is below the 5 year average.

**Table 4. Number of casualties by road user class 2001-2005 Ryde LGA**

|  | 2001 | 2002 | 2003 | 2004 | 2005 | 5 Yr. Average |
|---|---|---|---|---|---|---|
| **Motor Vehicle Drivers** | 267 | 270 | 212 | 219 | 198 | 233 |
| **Motor Vehicle Passengers** | 81 | 63 | 80 | 40 | 61 | 65 |
| **Motorcyclists** | 31 | 28 | 30 | 38 | 28 | 31 |
| **Pedal Cyclists** | 11 | 22 | 12 | 14 | 13 | 14 |
| **Pedestrians** | 43 | 42 | 46 | 48 | 41 | 44 |
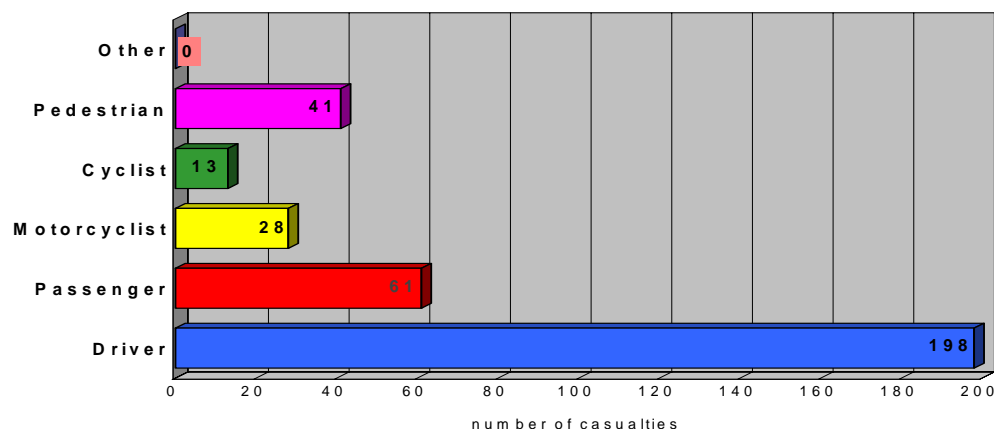


**Graph 12: Casualties in Ryde LGA by road user group 2005**

**Table 5. 2005 Ryde casualties by age, gender and road user class**

| | 0-16 | | 17-25 | | 26-39 | | 40-59 | | 60+ | | Unknown | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | | |
| **Motor Vehicle Drivers** | 1 | - | 19 | 26 | 31 | 39 | 30 | 35 | 7 | 7 | 3 | 198 |
| **Motor Vehicle Passengers** | 3 | 6 | 7 | 6 | 3 | 7 | 1 | 4 | 2 | 11 | 11 | 61 |
| **Motorcyclists** | - | - | 10 | 2 | 8 | - | 7 | - | - | - | 1 | 28 |
| **Pedal Cyclists** | 2 | 1 | 1 | - | 2 | 3 | 3 | - | 1 | - | - | 13 |
| **Pedestrians** | 3 | 3 | 4 | 2 | 4 | 1 | 6 | 6 | 7 | 4 | 1 | 41 |
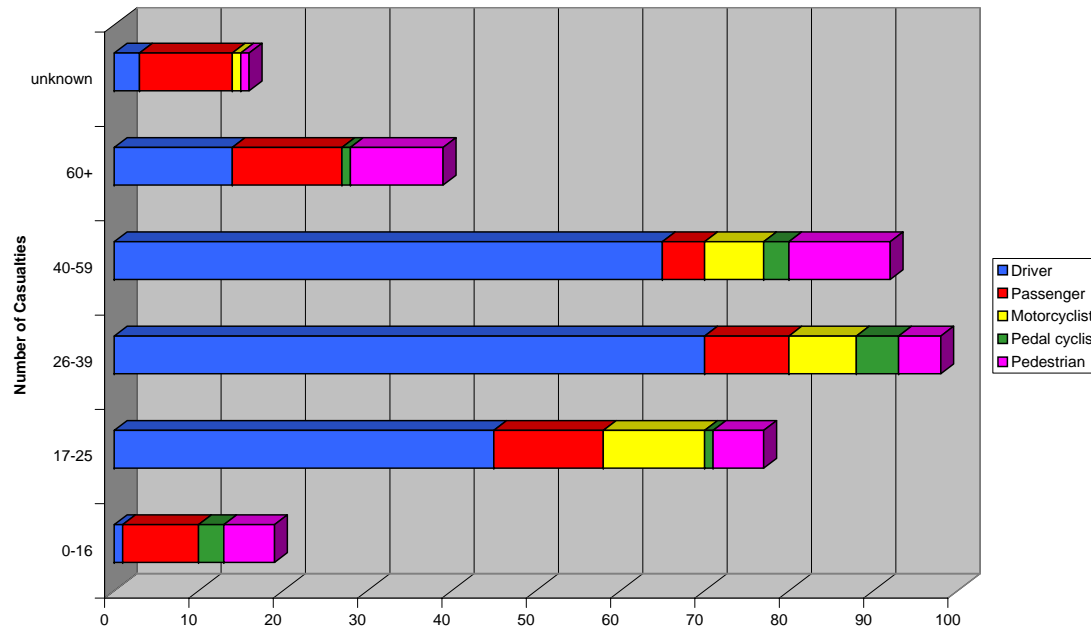


**Graph 13: Casualties by road user class and age Ryde 2005**

The following section addresses casualties and crashes in Ryde LGA according to age and road user class. The following has been identified from the RTA data, and graphs and tables above.

### 4ai.    Motor Vehicle Drivers

Graph 12 shows the total number of casualties for each road user type in Ryde, 2005. Motor vehicle driver casualties account for 58.1% of all casualties in Ryde. Graph 14 displays the total number of crashes in Ryde by crash type for 2005. It must be noted that the displayed accident types are not mutually exclusive and therefore should not be added together. For example an accident involving a car and a motorcycle would be included in the "car" and "motorcycle" crash type categories. As can be seen, the majority of crashes involved cars (749), with almost 96% of all crashes involving at least one car. This is followed by light trucks (103) and heavy trucks (78). No fatalities were recorded in truck, motorcycle or pedal cyclist crashes. Fatalities were, however recorded in car, pedestrian, and bus related crashes, which resulted in 2 passenger fatalities and 5 pedestrian fatalities.
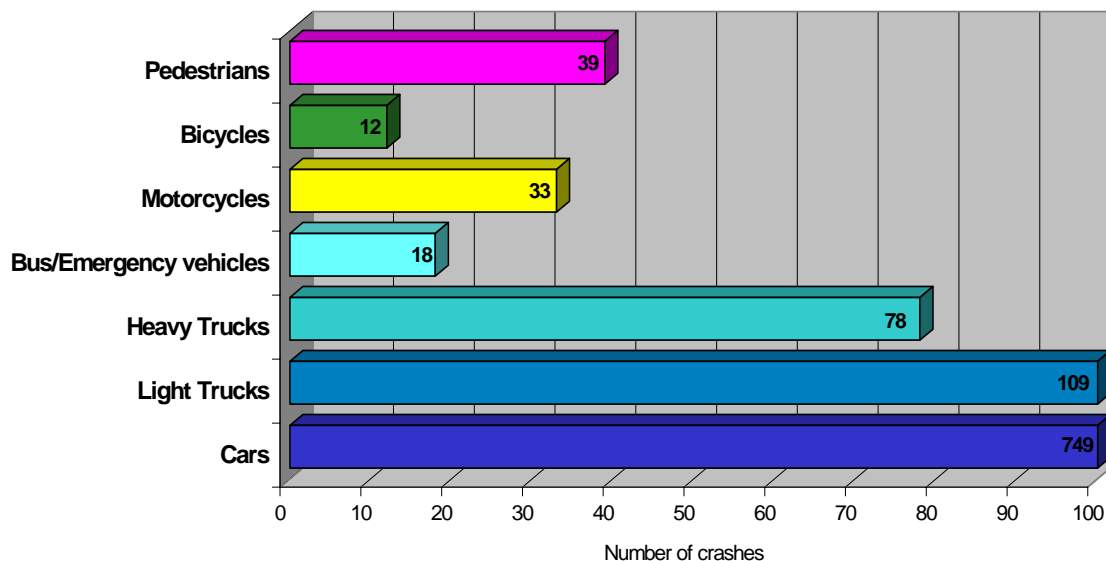


**Graph 14: Crash types in Ryde 2005**

Table 5 shows the number of casualties in 2005 by age, gender and road user class. The results show that there were more female motor driver casualties from the age of 17 years to 59 years. According to table 5 and Graph 13, the majority of motor vehicle driver casualties were aged between 26 and 39 years of age.

**4aii.    Motor Vehicle Passengers**
Motor vehicle passenger casualties as a percentage of all casualties was at it's lowest in 2004 (11.1%), however increased significantly in 2005 (17.9%), with an increase in casualties of 21. There were 40 passenger casualties in Ryde in 2004, and 61 in 2005 (table 4). The greatest number of casualties for motor vehicle passengers occurred in the 17-25 and 60+ year age group in 2005 (13 each).

**4aiii.    Occupant Restraints**
It is important to now examine occupant restraints as it relates to motor vehicle drivers and passengers. Table 6 shows the percentage of casualties who had restraints fitted in the vehicle but did not wear them in NSW, Sydney region and Ryde area in 2005. While Ryde's percentage is lower than NSW and Sydney region there is still a need to address this, as seatbelts save lives and Road Safety 2010 has identified restraints as an important safety issue. It is important to promote the correct use of restraints from the beginning of a child's life, and to encourage continued restraint use from an early age, through to adulthood.

**Table 6. Use of Restraints: 2005**

|  | NSW | | Sydney Region | | Ryde | |
|---|---|---|---|---|---|---|
| **All Motor Vehicle Driver Casualties**<br><br>Restraint fitted but not worn (as a % of the total number of driver casualties) | 256 | **1.8%** | 116 | **1.4%** | 2 | **1.0%** |
|  | NSW | | Sydney Region | | Ryde | |
| **All Motor Vehicle Passenger Casualties**<br><br>Restraint fitted but not worn (as a % of the total number of passenger casualties) | 132 | **2.2%** | 49 | **1.6%** | 0 | **-** |

**4c.    Pedestrians**

While pedestrian casualties had increased from 2002 to 2004, with 2004 having the highest percentage of pedestrian casualties for the 5 year period (see table 4), the number has since decreased in 2005. However, there has been an increase in the number of pedestrian fatalities in Ryde.

Graph 15 shows the percentage of pedestrian casualties in Ryde in 2005 and 2004 by age group. As can be seen, there has been a change in the percentage particularly in the 17-25 year age group and 40-59 year age group. In 2004 the 17-25 year age group had the highest percentage of pedestrian casualties (35%), followed by the 60+ age group (21%). In 2003 both these age groups rated the highest, however the 60+ age group rated slightly higher at 24% compared to 22% for 17-25 year olds. In 2005, however, the 40-59 year age group had the highest percentage of pedestrian casualties (a significant increase of 12%). The number of pedestrian casualties aged 17-25 years of age has decreased from 17 in 2004 to 6 in 2005, while the 60+ year age group still remains the 2nd highest pedestrian casualty group.
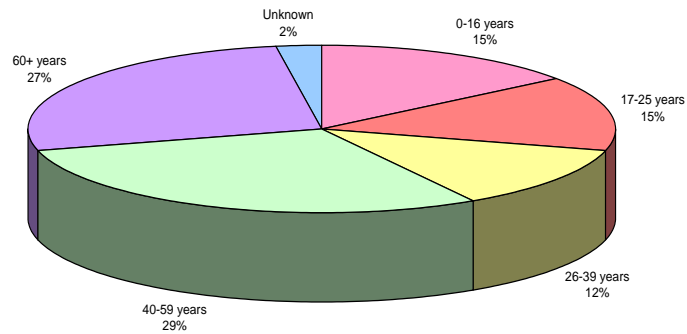
**2005**
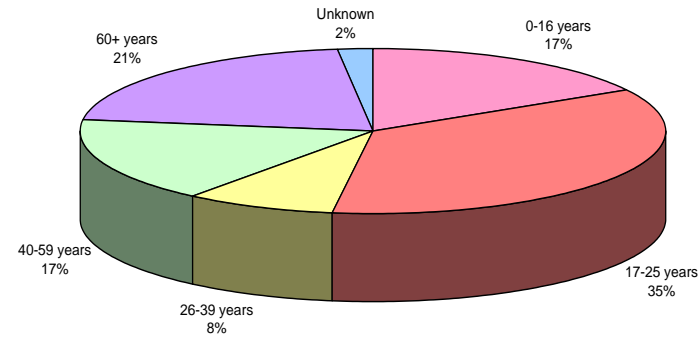
**2004**
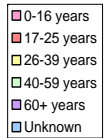
**Graph 15: Pedestrian casualties by age group Ryde 2004 and 2005**

The number of pedestrian casualties for males and females respectively was 24 and 16, with 1 unknown. However when delving into the figures, there was a higher number of female pedestrian casualties in the 17-25, 26-39 and 60+ year age group, and an equal number of male and female pedestrian casualties in the 0-16 and 40-59 year age group (see table 5).

The map below displays each pedestrian crash in Ryde between 2001 and 2005, and pedestrian crash clusters.
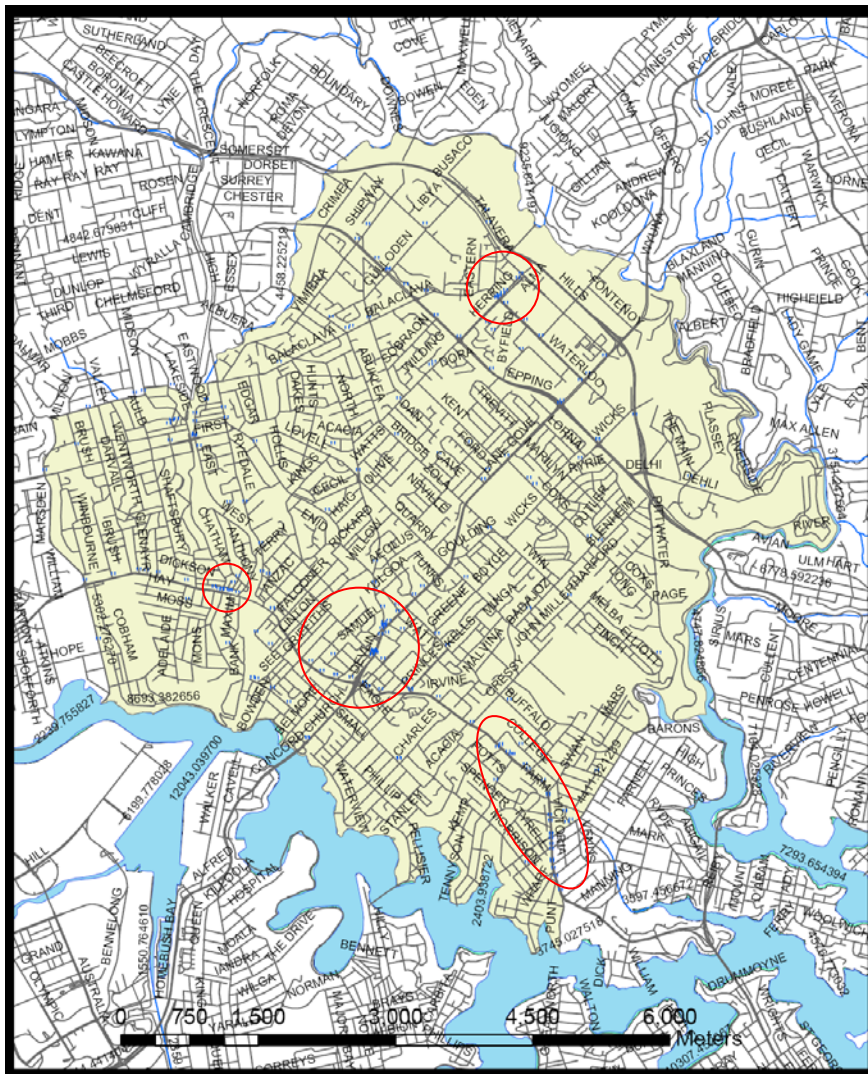


When looking at the map over the 5-year period there is a cluster of pedestrian crashes in Ryde, at Lane Cove Road, particularly at the intersections of Blaxland Rd. There is another cluster of pedestrian crashes at Herring Road, Marsfield, particularly at the intersection of Waterloo Rd. It is also important to note the pedestrian crashes located around Eastwood Station and along Victoria Rd at West Ryde and at Gladesville.

The majority of 40-59 year pedestrian crashes occurred during the weekday (60%). These crashes occurred during the day from 7.30am to 10.30pm, with small clusters occurring in the morning, at lunch and late afternoon. Meadowbank, Ryde and North Ryde (including Macquarie Park and Marsfield) stood out as locations where the majority of these pedestrian crashes occurred. Two of the 5 pedestrian fatalities were aged between 40-59 years of age. Both pedestrian resided outside of the Ryde LGA, with both occurring on Lane Cove Rd near the Macquarie Business Park in North Ryde, indicating that these pedestrians worked in the area.

One reason for the continued high percentage of older pedestrian casualties may be an increased number of older pedestrians over drivers who are more fragile with slower reaction times to dangerous situations. Three of the 5 pedestrians killed were aged 60 years and over. When examining the 60+ year age group, the majority of pedestrians resided in the Ryde LGA with crashes occurring in North Ryde, Ryde and Eastwood locations near the shopping precincts. All pedestrian fatalities were male.

### 4b.    Motorcyclists

The percentage of motorcycle casualties was at its lowest over the 5 year period in 2005 accounting for 8.2% of all casualties. There were 33 motorcycle crashes resulting in 28 motorcycle casualties in Ryde in 2005 (see table 5 and graph 12). The highest number of motorcycle casualties occurred in the 26-39 year age group, followed by the 40-59 year age group (see table 5 and graph 13). Almost 89% of all motorcycle casualties in 2005 were male (see table 5). Epping Rd North Ryde, Victoria Rd Gladesville and West Ryde and Lane Cove Rd stand out as more frequent motor cycle crash locations as seen in the map to the right, which displays each motorcycle crash location in Ryde from 2001-2005. The majority of motorcycle crashes occurred on weekdays between 6.45-7.40am and 1-6.30pm. This suggests motorcyclist commuting to and from work. There were no motorcyclist fatalities in 2005. Of the 28 motorcycle casualties in Ryde there were no known motorcyclists who were not wearing a helmet. This is promising to see.
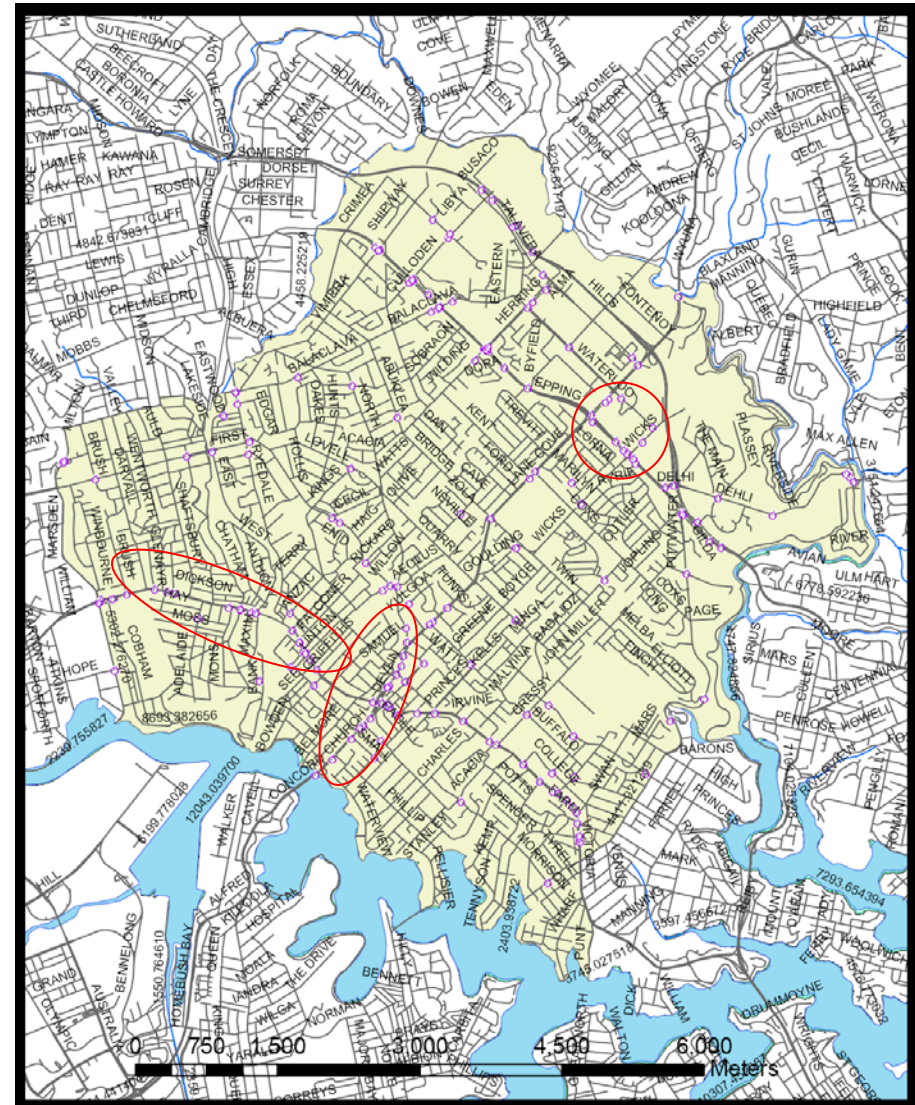
**4c.      Pedal Cyclists**

There were 12 pedal cyclist crashes resulting in 13 casualties in Ryde in 2005. There has been an increase in female pedal cycle casualties in Ryde from 2004 (Zero across all age groups in 2004 and 4 across all age groups in 2005 [1 in 0-16 year and 3 in 26-39 year age group]. There were no pedal cycle fatalities in 2005. The highest number of pedal cyclist casualties occurred in the 26-39 year age group (5) (see table 5 and graph 13). Pedal cyclists continue to have the lowest recorded casualty numbers by road user class. Ryde LGA has a lower percentage of pedal cyclist casualties compared to Sydney region and NSW.

## 5.    SUMMARY

In summary, the following issues have been identified for Ryde LGA, and therefore need to be addressed when developing road safety initiatives for 2007-2008.

- Large decrease in the total number of crashes since 2004. Trend is showing a decline in crashes since 2001.
- The total number of crashes is below the 5-year average
- Most motor vehicle controller crashes and casualties occurred in the 26-39 year age group.
- Pedestrian fatalities are an issue that may need to be addressed. The greatest number of pedestrian casualties in 2005 occurred in the 40-59 year age group, compared with the 17-25 year age group the previous year (2004). The 60+ year age group always ranks in the top 2 age groups. Pedestrian crash clusters occur in Ryde at Lane Cove Rd, particularly at the Blaxland Roads intersections, Herring Rd Marsfield particularly at the intersection of Waterloo Rd. Other pedestrian crash clusters occur around Eastwood Station, and along Victoria Rd at West Ryde and Gladesville.
- It appears that driver fatigue related crashes have increased since 2004 (however, there may be a number of discrepancies regarding reporting of these crashes). Speeding related crashes and alcohol related crashes are at their lowest in 2005, since 2001.
- The majority of fatal or injury crashes occurred from Monday to Friday 9am to 3pm.
- Speeding is still the highest contributing factor to crashes. The majority of speeding crashes occurred during weekdays, Monday to Friday between 9am and 3pm.  The majority of speeding crashes occurred in the 17-25 year age group. Almost 38% of motor vehicle controllers involved in crashes were aged between 17-25. This figure has decreased since 2004 where the percentage was as high as 49%.
- The number of alcohol related crashes has decreased since 2001. The majority of fatal or injury crashes involving alcohol occurred from Thursday to Saturday between 9pm and 3am. The majority of alcohol related crashes involved 26-39 year olds.

## 7.    SOURCES

- Sydney Profile
- RTA Crash Data
- Road Safety 2010
- Maps provided by the RTA

# Appendix 1

## DEFINITIONS AND EXPLANATORY NOTES

*Animal rider:* A person sitting on/riding a horse or other animal.

*Articulated truck:* Comprised of articulated tanker, semi-trailer, low loader, road train and B-double.

*Bicycle rider:* See *Pedal cycle rider.*

*Bus:* Includes 'State Transit Authority' bus and long distance/tourist coach.

*Car:* Includes sedan, station wagon, utility (based on car design), panel van (based on car design), coupe, hatchback, fastback, sports car, taxi-cab, passenger van and four wheel drive vehicle.

*Carriageway:* That part of the road improved or designed and/or ordinarily used for vehicular movement. When a road has two or more of these portions, divided by a median strip or other physical separation, each of these is a separate carriageway.

*Casualty:* Any person killed or injured as a result of a crash.

*Controller:* A person occupying the controlling position of a road vehicle.

*Crash:* Any apparently unpremeditated event reported to the police and resulting in death, injury or property damage attributable to the movement of a road vehicle on a road.

*Driver:* A controller of a motor vehicle other than a motorcycle.

*Emergency vehicle:* Includes ambulance, fire brigade vehicle, police patrol car (or van) and tow truck.

*Fatal crash:* A crash for which there is at least one fatality.

*Fatality:* A person who dies within 30 days of a crash as a result of injuries received in that crash.

*Footpath:* That part of the road which is ordinarily reserved for pedestrian movement as a matter of right or custom.

*Heavy truck:* Comprised of heavy rigid truck and articulated truck.

*Heavy rigid truck:* Comprised of rigid lorry and rigid tanker with a tare weight in excess of 4.5 tonnes.

*Injured:* A person who is injured as a result of a crash, and who does not die as a result of those injuries within 30 days of the crash.

*Injury crash:* A non-fatal crash for which at least one person is injured.

*Intersection crash:* A crash for which the first impact occurs at or within 10 metres of an intersection.

*Killed:* See Fatality.

*Light truck:* Includes panel van (not based on car design), utility (not based on car design) and mobile vending vehicle.

*Motor vehicle:* Any road vehicle which is mechanically or electrically powered but not operated on rails.

*Motorcycle:* Any mechanically or electrically propelled two or three-wheeled machine with or without side-car. Includes solo motorcycle, motorcycle with sidecar, motor scooter, mini-bike, three-wheeled special mobility vehicle and moped (motorized 'pedal cycle').

*Motorcycle passenger:* A person on but not controlling a motorcycle.

*Motorcycle rider:* A person occupying the controlling position of a motorcycle.

*Newcastle Metropolitan Area:* Comprised of the following local government areas: Newcastle and Lake Macquarie cities.

*Non-casualty crash:* A crash for which at least one vehicle is towed away but there is no fatality or person injured.

*Passenger:* Any person, other than the controller, who is in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash, provided a portion of the person is in/on the road vehicle.

*Pedal cycle:* Any two or three-wheeled device operated solely by pedals and propelled by human power except toy vehicles or other pedestrian conveyances. Includes bicycles with side-car, trailer or training wheels attached.

*Pedal cycle passenger:* A person on but not controlling a pedal cycle.

*Pedal cycle rider:* A person occupying the controlling position of a pedal cycle.

*Pedestrian:* Any person who is not in, on, boarding, entering, alighting or falling from a road vehicle at the time of the crash.

*Pedestrian conveyance:* Any device, ordinarily operated on the footpath, by which a pedestrian may move, or by which a pedestrian may move another pedestrian or goods. Includes non-motorized scooter, pedal car, skateboard, roller skates, in-line skates, toy tricycle, unicycle, push cart, sled, trolley, non-motorized go-cart, billycart, pram, wheelbarrow, handbarrow, non-motorized wheelchair or any other toy device used as a means of mobility.

*Road:* The area devoted to public travel within a surveyed road reserve. Includes a footpath and cycle path inside the road reserve and a median strip or traffic island.

*Road vehicle:* Any device (except pedestrian conveyance) upon which or by which any person or property may be transported or drawn on a road.

*Sydney Metropolitan Area:* Comprised of the following local government areas: City of Sydney, Bankstown, Blacktown, Botany Bay, Campbelltown, Canada Bay, Canterbury, Fairfield, Holroyd, Hurstville, Liverpool, Parramatta, Penrith, Randwick, Rockdale, Ryde, South Sydney and Willoughby cities, Ashfield, Auburn, Baulkham Hills, Burwood, Camden, Hornsby, Hunters Hill, Kogarah, Ku-ring-gai, Lane Cove, Leichhardt, Manly, Marrickville, Mosman, North Sydney, Pittwater, Strathfield, Sutherland, Warringah, Waverley and Woollahra.

*Wollongong Metropolitan Area:* Comprised of the following local government areas: Wollongong and Shellharbour cities.

## CRITERIA FOR DETERMINING SPEEDING AND FATIGUE INVOLVEMENT

### Speeding

The identification of speeding (excessive speed for the prevailing conditions) as a contributing factor in road crashes cannot always be determined directly from police reports of those crashes. Certain circumstances, however, suggest the involvement of speeding. The Roads and Traffic Authority has therefore drawn up criteria for determining whether or not a crash is to be considered as having involved speeding as a contributing factor.

Speeding is considered to have been a contributing factor to a road crash if that crash involved at least one *speeding* motor vehicle.

A motor vehicle is assessed as having been *speeding* if it satisfies the conditions described below under (a) or (b) or both.

(a) The vehicle's controller (driver or rider) was charged with a speeding offence; or

the vehicle was described by police as travelling at excessive speed; or

the stated speed of the vehicle was in excess of the speed limit.

(b) The vehicle was performing a manoeuvre characteristic of excessive speed, that is:

while on a curve the vehicle jack-knifed, skidded, slid or the controller lost control; or

the vehicle ran off the road while negotiating a bend or turning a corner and the controller was not distracted by something or disadvantaged by drowsiness or sudden illness and was not swerving to avoid another vehicle, animal or object and the vehicle did not suffer equipment failure.

### Fatigue

The identification of fatigue as a contributing factor in road crashes similarly cannot always be determined directly from police reports of those crashes and the following criteria are used to assess its involvement. Fatigue is considered to have been involved as a contributing factor to a road crash if that crash involved at least one *fatigued* motor vehicle controller.

A motor vehicle controller is assessed as having been *fatigued* if the conditions described under (c) or (d) are satisfied together or separately.

(c) The vehicle's controller was described by police as being asleep, drowsy or fatigued.

(d) The vehicle performed a manoeuvre which suggested loss of concentration of the controller due to fatigue, that is

the vehicle travelled onto the incorrect side of a straight road and was involved in a head-on collision (and was not overtaking another vehicle and no other relevant factor was identified); or

the vehicle ran off a straight road or off the road to the outside of a curve and the vehicle was not directly identified as travelling at excessive speed and there was no other relevant factor identified for the manoeuvre.

Roads and Traffic Authority (2004) Road Traffic Crashes in NSW – 2003 Statistical Statement