



Transport  
for NSW

# ANNUAL NSW SPEED CAMERA PERFORMANCE REVIEW

NSW Centre for Road Safety

JULY 2012

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## **Executive summary**

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In response to the Auditor-General's recommendation the NSW Government announced the *NSW Speed Camera Strategy* on 1 June 2012. The strategy outlines how speeding impacts upon the community, how sites are selected for the four types of speed cameras used in NSW, and how speed camera performance will be monitored and reported on an annual basis. The strategy was developed in consultation with the NSW Police Force and NRMA Motoring and Services.

This report summarises the analysis undertaken by the NSW Centre for Road Safety for the first annual speed camera review against criteria outlined in the strategy. This action also meets the NSW Auditor-General's recommendation to provide the community with information about the road safety impact of speed cameras.

The purpose of the *Annual NSW Speed Camera Performance Review* is to provide a systematic process for monitoring the effectiveness of speed cameras to ensure they are having a positive road safety effect. Where it is determined a camera has not been effective, other road safety alternatives will be considered. The findings from this annual review will guide the planning of future speed enforcement priorities and operations.

The evaluation criteria for each camera type outlined in the strategy has been determined by the NSW Centre for Road Safety based on the road safety benefit that is expected to be achieved from the program. Broadly speaking camera effectiveness is measured by two key criteria:

- The impact the speed camera has on slowing drivers down and therefore reducing crashes and casualties, and
- The impact the speed cameras have on achieving greater speed compliance through a reduction in infringement rates.

A more detailed explanation of evaluation criteria and the methodology for assessing camera performance is outlined in the document.

### **Key findings for each camera type**

#### Mobile speed cameras

An analysis of fatality trends for the first 12 months of the mobile speed camera program found that mobile speed cameras contributed to a 19 per cent statistically significant reduction in fatalities on NSW roads in the first year of the program. The ongoing impact of the mobile speed camera program is reflected in the 2011 road toll of 376 which represents the second lowest annual figure since 1944 (with 371 fatalities, the lowest recorded in 2008; 374 fatalities) and a continued suppression of speeding observed in on-road speed surveys which shows a general decrease in the proportion of vehicles exceeding the speed limit across most speed zones. Crash and speed survey data indicate there has been an increase in speeding on high speed roads and therefore this will be a future focus of the mobile speed camera program.

#### Red-light speed (safety) cameras

There are 91 intersections across NSW that have red-light speed camera enforcement; 46 intersections were issuing infringements for both red-light and speeding offences and 45 intersections in warning mode for speeding offences up to 30 km/h in 2011. Given the program is still in its infancy in NSW it is too early to evaluate camera effectiveness at individual locations because in most instances enforcement has been conducted for less than one year.

Overall, at the 91 intersections there has been a 21 per cent reduction in crashes and a 26 per cent reduction in casualties at these locations since the cameras were installed comparing with a five year period prior to installation. When this is compared with evaluations of a similar program in Victoria, early results for the NSW program indicate that the expected road safety benefits are being achieved.

#### Point-to-Point speed camera enforcement

A large proportion of the point-to-point enforcement program was rolled out during 2011, therefore it is still too early to evaluate the effectiveness of most of the lengths. Of the 24 lengths that are part of the program, two point-to-point lengths were installed in 2010, 13 lengths were installed during 2011 and the remaining nine will

be rolled out in 2012 and 2013. Of these lengths only one – Great Western Highway between Meadow Flat and Raglan – enforced for the entire 2011 review period. In the period 2005 to 2009 there were 11 heavy vehicle crashes resulting in one fatality and eight injuries at this location. In 2011, there were three heavy vehicle crashes, resulting in one casualty at this location which indicates that early results are encouraging for the enforcement length.

Infringement data for average speed offences in point-to-point enforcement lengths show a high level of compliance within the enforcement lengths and a low number of infringements. This is consistent with evaluations of point-to-point programs operating in other jurisdictions.

#### Fixed speed camera program

A total of 97 fixed speed camera locations have been reviewed, with 88 found to have been effective from the initial analysis. Overall, when comparing the five years before the fixed speed cameras were installed to the current five year analysis period, the fixed speed camera program has delivered a 38 per cent reduction in the number of crashes resulting in an 87 per cent reduction in fatalities and a 37 per cent reduction in injuries at camera locations.

There are nine locations that were identified for further review based on the crash analysis criteria outlined in the report. Including:

- Northern Distributor, Corrimal,
- New South Head Road, Edgecliff,
- Pacific Highway, Hungry Head,
- New England Highway, Kootingal,
- New England Highway, Lochinvar,
- F3 Freeway, Ourimbah,
- Pacific Highway, Valla Beach,
- Pacific Highway, Wardell,
- Castle Hill Road, West Pennant Hills.

Desktop reviews were undertaken for these locations to gain an understanding of what occurred at each location. Based on the desktop reviews, four locations were deemed effective and five were recommended for comprehensive field reviews to be undertaken by the NSW Centre for Road Safety. Including:

- Northern Distributor, Corrimal,
- New South Head Road, Edgecliff,
- Pacific Highway, Hungry Head,
- New England Highway, Kootingal
- New England Highway, Lochinvar.

As part of the review, the fixed speed camera at New South Head Road, Edgecliff will be considered for a red-light speed (safety) camera because a large number of crashes at this location occurred at a nearby intersection.

If during the field reviews it is determined that any camera is not delivering the expected safety benefits at the location, it will be recommended for removal and possible relocation.

The NSW Centre for Road Safety will continue to annually review all individual speed cameras as well as the overall performance of speed camera programs as set out in the *NSW Speed Camera Strategy*. These reviews will be annually published to ensure that the programs remain transparent to the community.

## Introduction

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In response to the Auditor-General's recommendation the Government announced the *NSW Speed Camera Strategy* which provides an integrated framework for speed enforcement in NSW and aims to improve the transparency and understanding of the use of speed cameras in NSW through increased community engagement and education. The *NSW Speed Camera Strategy* reinforces the Government's commitment to reducing fatalities on NSW roads.

One of the key actions outlined in the *NSW Speed Camera Strategy* is the annual publication of camera performance against criteria outlined in the Strategy. This action also meets the NSW Auditor-General's recommendation to provide the community with information about the road safety impact of speed cameras.

The purpose of the *Annual NSW Speed Camera Performance Review* is to present the results of performance evaluations carried out on each of the speed camera programs in NSW. The Auditor-General found that the right speed camera in the right place can save lives. Cameras not delivering the expected road safety benefits will be monitored and evaluated and if not considered to be effective will be removed or relocated. The findings from this report will guide the planning of future speed enforcement operations.

### The speeding problem

Speeding, which encompasses excessive speed (driving above the speed limit) or inappropriate speed (driving too fast for the prevailing conditions), is unquestionably recognised as a major contributing factor in both the number and severity of traffic crashes.

Speeding increases the risk of having a crash, and increases the risk of serious injury or death in the event of a crash. In addition to car occupants, our roads are used by vulnerable road users such as pedestrians. Studies of survival and impact speed show that small increases in travel speed can result in large increases in braking distances and impact speed and as a result substantially increasing the risk of a pedestrian being killed or seriously injured.

### Effectiveness of camera enforcement

Speed camera enforcement is an important road safety initiative that has proven road safety benefits. Speed enforcement helps to reduce the proportion of drivers who exceed the speed limit on our roads, which in turn reduces the risk of being involved in a fatal or injury crash and the severity of outcomes in the event of a crash.

Speed enforcement activities aim to increase the perceived threat of being caught speeding and in doing so help to reduce the mean travel speed on our roads, and therefore reducing the risk of being involved in a fatal or injury crash for all road users. Automated camera enforcement supplements enforcement conducted by police and the NSW Police Force routinely requests locations to be considered for automated speed enforcement. Speed cameras are commonly employed methods of speed enforcement in many best practice road safety jurisdictions throughout the world.

The various types of speed cameras have different roles. In NSW, fixed speed cameras (including red-light speed and point-to-point cameras) are located at specified road lengths or intersections where there is a demonstrated crash history or where speed is considered to be a problem. Mobile speed cameras can be moved around the network at various times and locations and, like police enforcement, this mobility increases the deterrence effect due to the unpredictability of the exact location of speed enforcement.

### Changing driver behaviour

Speed cameras are used to change driver behaviour, which can be measured by changes in infringements over time. An example of this trend is illustrated in Figure 1 which depicts the number of infringements per month since the commencement of enforcement at three high profile fixed speed camera locations. This pattern shows an initial high number of infringements followed by a rapid and sustained decrease in infringements as drivers modify their behaviour which is reflected in a reduction in crashes over time.

Appendix C contains this type of infringement graph for every fixed speed camera location. Infringement numbers follow this trend at many locations however in some locations the initial few years of infringement volumes are missing because data for pre July 2004 is not currently published on the Office of State Revenue website. The Centre for Road Safety is currently collating this information and it will be available for future reporting.

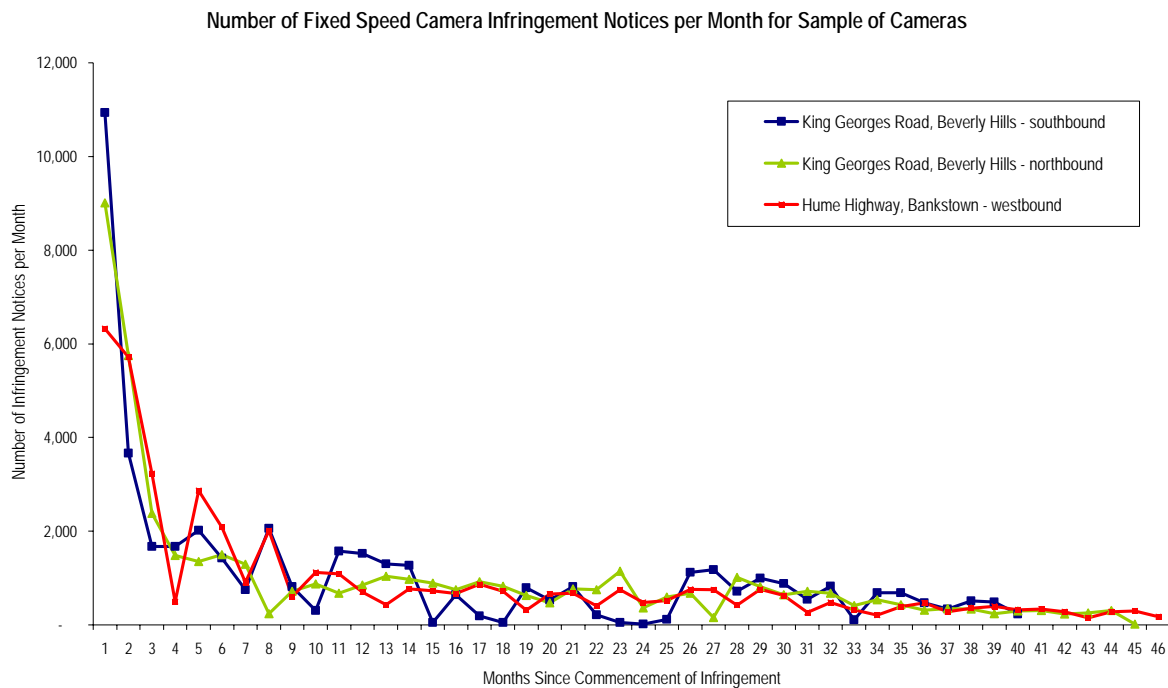


Figure 1: Example of trend in speed camera infringements over time.

## Speed camera programs in NSW

Speed cameras are speed enforcement tools that supplement enforcement conducted by the NSW Police Force. They have been proven to make roads safer by reducing speeding and in turn the number and severity of crashes. Table 1 shows the four types of speed cameras used in NSW.

Speed cameras used in NSW			
Type	Main purpose	Introduced	Current size of NSW program
Fixed	Location specific (To address black spot/high risk)	1997	139 cameras at 110 locations (7 in warning mode)
Red-light Speed (safety)	Location specific (To address high risk intersections)	2009	106 cameras at 91 intersections
Mobile	General network deterrence	First introduced in 1991. Ceased operation in December 2008 and re-introduced in 2010	642 locations Approx. 930 hours of enforcement per month
Point-to-Point	Route enforcement (For heavy vehicles only)	2010	24 lengths

Table 1: Types of speed camera enforcement in NSW as at 1 June 2012.

### Fixed speed cameras

Fixed speed cameras are located at specified road lengths where there is a high crash risk or a demonstrated crash history.

### Red-light speed (safety) cameras

Red-light speed (safety) cameras are also location-specific as they address speeding and red-light running at signalised intersections where drivers and pedestrians are vulnerable to right angle crashes.

The NSW Police Force previously managed wet-film red-light cameras at 183 intersections across the Sydney, Newcastle and Wollongong metropolitan areas. These cameras were becoming outdated and used obsolete technology and the program was handed over to the former Roads and Transport Authority in December 2008. Red-light speed cameras were introduced in late 2009 to replace some of these wet film locations as well as new intersections.

### Mobile speed cameras

Mobile speed cameras produce a sustained change in driver behaviour by creating a perception that speeding can be enforced anywhere at any time. Therefore they reduce speeding not only at identified enforcement locations but also across the road network. This is because drivers are less able to predict where the enforcement will occur; the less predictable the enforcement, the more broadly speed limit compliance can be achieved and the greater the crash problem that is addressed. Mobile speed cameras can be moved around the road network at various times and locations.

### Point-to-point enforcement

Point-to-point enforcement addresses speeding along travel routes with a demonstrated history of crashes. Point-to-point enforcement in NSW targets heavy vehicles as they are over-represented in crashes on known heavy vehicle routes. Point-to-point enforcement works by measuring the amount of time it takes a heavy vehicle to travel between two points and then calculating the average speed of the vehicle. If the vehicle's average speed is faster than the speed limit for the length of road, the driver will be infringed for speeding.

## Evaluation criteria

The ultimate indicator of performance for all speed cameras in NSW is a reduction in people killed and injured in crashes. The following tables outline the criteria that have guided the evaluation of speed cameras in NSW as well as the overall effectiveness of the *NSW Speed Camera Strategy*.

Enforcement type	Evaluation data	Measure of effectiveness
Mobile speed cameras	Annual speed surveys	Reduction in vehicles exceeding speed limit across the road network/ random sample of locations
	Compliance data	Increase in compliance rates/Reduction in infringement rates
	Crash data	Reduction in crashes and casualties across NSW
Red-light speed (safety) cameras	Speeds	Reduction in vehicles exceeding speed limit at intersection
	Compliance data	Increase in compliance at intersection/Reduction in infringement rates
	Crash data	Reduction in casualties and crashes at intersection
Fixed speed cameras	Speeds	Reduction in vehicles speeding within 500 metres of the camera
	Compliance data	Increase in compliance at camera location/Reduction in infringement rates
	Crash data	Reduction in casualties and crashes within 500 metres of the camera
	Risk	Level of risk continues to be reduced at the location (for example low level of speeding and/or crashes in tunnels)
Point-to-Point enforcement	Speeds	Reduction in heavy vehicle speeding within enforcement length
	Compliance data	Increase in compliance within the enforcement length/Reduction in infringement rates
	Crash data	Reduction in crashes within enforcement length

Table 2: Criteria for measuring camera effectiveness.

Program	Outcome
Mobile speed camera	Reduction in road trauma, speed-related crashes and speeding across the whole road network
Red-light speed (safety) camera	Reduction in frequency and severity of crashes at enforced intersections (and at all signalised intersections due to deterrent effect across the network)
Fixed speed	Reduction in vehicles speeding and the frequency or severity of crashes at fixed speed camera locations
Point-to-Point	Reduction in speeding and the frequency or severity of crashes on point-to-point enforcement lengths

Table 3: Criteria for measuring overall effectiveness of enforcement programs.



## Evaluation method

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### 2011 Road toll data

The crash data used in this annual review are for crashes which occurred between 1 January 2011 to 31 December 2011. It is important to note that this is still preliminary data. Annual road toll statistics are not finalised until around nine months after the end of the calendar year. This is because of the time lag involved with the receipt of late reports and the processing of exclusions arising from Coronial inquiry determinations. Based on the experience from previous years, the final road toll for 2011 is expected to be around three per cent lower than the provisional road toll figure.

The crash statistics recorded by Transport for NSW and included in this annual review are confined to those crashes which conform to the national guidelines for reporting and classifying road vehicle crashes and are based on the following criteria:

- 1 The crash was reported to the police
- 2 The crash occurred on a road open to the public
- 3 The crash involved at least one moving road vehicle
- 4 The crash involved at least one person being killed or injured or at least one motor vehicle being towed away.

More information about how crash data is processed in NSW is available online at [www.centreforroadsafety.nsw.gov.au](http://www.centreforroadsafety.nsw.gov.au).

### Speed camera data

The red-light speed camera and point-to-point enforcement programs are in their early stages, having only been operational for two years or less. Given the infancy of the programs, the data analysed in this annual review will not be sufficient to reliably assess the effectiveness of individual camera locations. Typically at least five years of crash and casualty data are required to make a statistically significant assessment of a camera's effectiveness.

The data assessed in this review, therefore will only provide preliminary indications of any changes in driver behaviours as a result of these programs.

#### Mobile speed cameras

Due to the mobility of mobile speed cameras and their purpose of creating a general deterrence effect across the road network (as opposed to a fixed location enforced by other speed cameras), the current analysis does not examine individual mobile speed camera locations. The analysis examined crash data for the entire state.

The analysis of the mobile speed camera program is available at Attachment A.

#### Red-light speed (safety) cameras

The current analysis provides crash data for the five year 'before' period, ending 91 days before the commencement date as this is the period in which the camera was under construction. The 'after' period is from the commencement date to the end of 2011. Red-light speed cameras operate in warning mode for a period prior to issuing infringements. Crash data for the calendar year 2011 is also given for those intersections whose enforcement commenced prior to 2011.

Crash data were examined at each red-light speed camera for all crashes that occurred within 10 metres of the red-light speed camera intersection. The current analysis has been conducted by intersection, rather than by camera. There are currently a total of 106 red-light and red-light speed (safety) cameras operating at 91 intersections around Sydney, Newcastle and Wollongong. Therefore, 15 intersections have two cameras.

*Additional technical notes for the analysis of red-light speed cameras:*

1. Crashes are assigned to the traffic signal controlled intersections enforced. An intersection crash is one which occurs within, or up to 10 metres from, an intersection. Initially crashes geo-coded as within 90 metres of the Traffic Control System (TCS) feature and that occurred at an intersection were selected.
2. These were viewed and attributed to the intersection under analysis taking into account the geo-coding as well as the values in the street name, the ID feature, and the intersection type fields.
3. Where unclear, the correct location of the crash was confirmed or inferred from the original police report.
4. The commencement of the warning letter period is listed for each camera. For the analysis of intersections with two cameras, the 'after' period began with the earlier commencement date.
5. The crash and casualty graph only contains complete years data. Where there is less than one year of post installation data, they are not graphed however they are described in text.
6. Data for the following crash analysis have not been ranked and are presented alphabetically on the location description of the camera location. The combined crash rate and casualty rate reductions are based on the annual averages in crashes and casualties at each location before and after the cameras were installed.

The analyses of red-light speed camera locations are available at Attachment B.

Fixed speed cameras

In early 2011 (prior to the audit of speed camera programs) there were 172 cameras operating at 141 locations. When the audit was released in July 2011, the Minister for Roads and Ports directed the deactivation of the 38 cameras that were found to not be delivering the expected road safety benefit. Safety reviews have now been conducted at these locations and a program of alternative works will be implemented at these locations prior to the cameras being removed. Cameras at seven of these locations remain in warning mode following concerns expressed by the community. Given the recent review of these cameras they are not considered in the 2011 report but will continue to be monitored during 2012.

The current review is of the remaining 103 locations. Of these locations, six locations have not been considered because they are located in tunnels and no pre-installation data are available. The current analysis has been conducted by fixed speed camera location, rather than by camera. There are currently a total of 131 fixed speed cameras operating at 103 locations across NSW. Therefore, 28 locations have two cameras. One of these locations (F6, Gwynneville) has two cameras operating approximately 1,000 metres apart, and infringing in different directions, therefore these cameras were directionally analysed as separate locations.

The current analysis examined crash data of each fixed speed camera for 500 metres either side of non-school zone cameras or patch to patch (i.e. the length of road designated as a school zone, as identified by the start and end patches marked on the road) for all school zone cameras. For locations with more than one camera in operation (where cameras are less than 100 metres apart), the crash analysis length was for 500 metres either side of the mid-point of the two cameras.

Locations for which cameras were installed based on the high risk criteria have been analysed for the 2011 calendar year only, as there is no before data for analysis (typically tunnel locations).

*Additional technical notes for the analysis of fixed speed cameras:*

1. The commencement date listed for each location refers to the month and year that the fixed speed camera commenced infringement at that location. For locations where more than one fixed speed camera is in operation, the date listed refers to the month and year that the *first camera* started infringing at that location unless specified otherwise.
2. For each location, the 'before' and 'after' periods vary depending on the date the camera commenced infringement, and excluded the three month period directly before the commencement date. For each location, the 'before' period was defined as the five year period up to three months prior to the commencement date of camera infringements, and the 'after' period was defined as the most recent five year period.

3. Analysis of some recently installed school zone locations was necessarily based on shorter before and after time periods (i.e. one-year or two-year periods).
4. Data for the following crash analysis have not been ranked and are presented alphabetically on the location description of the camera location.
5. The crash and casualty numbers for the combined before and after analysis of fixed speed cameras are based on the five years before the cameras were installed, and the most recent five year analysis period for each camera location. In instances where there was less than five years of data since the camera was installed, the five year before data was adjusted so that it reflected an average number of crashes and casualties over an equivalent time period (e.g. four years). In circumstances when there was less than five years of data prior to the installation of the speed camera, the before period was adjusted so that it represented an equivalent five year period.

*Criteria for recommendations based on the current analysis:*

Along with before and after crash analysis of NSW fixed speed camera locations, the current report lists a recommendation for each location based on the current analysis. The camera location is listed as either:

- a) Delivering the expected road safety benefits.
- b) Recommended for review.

*a) Locations listed as delivering the expected road safety benefits*

Fixed speed camera locations have been classified as being effective and delivering the expected road safety benefits if the current crash analysis satisfies any one of the following criteria:

1. There is a lower number of total casualties and the same or lower number of crashes in the after period compared to the before period, and no fatalities in the after period.
2. There is the same number of total casualties but a lower number of total crashes in the after period compared to the before period, and no fatalities in the after period.
3. If there was at least one fatality in the before or after period, the combined cost to the community of fatalities and injuries in the after period is less than the combined cost in the before period. This acknowledges the greater cost to the community of fatalities compared to injuries. The estimated cost of road crash casualties is calculated using the willingness to pay methodology, which reflects the accumulated value the NSW community is willing to pay or forgo in exchange for a reduction in the probability of crash related injuries and road crash deaths on NSW roads. According to willingness to pay, casualty costs are \$5.834 million per fatality, and \$0.114 million per injury (Roads and Traffic Authority, 2009).
4. Fixed speed cameras have been installed in tunnels and other areas under the "high risk" site selection criteria. For these locations, there are no available data in the before period due to there being no crash history prior to camera implementation. However, any crash that occurs in these areas would have potentially catastrophic consequences due to difficulties of access by ambulance and emergency vehicles to the crash site.

*b) Locations identified for review*

Fixed speed camera locations have been identified for review if the current crash analysis satisfies any one of the following criteria:

1. There is a higher number of both total casualties and total crashes in the after period compared to the before period.
2. There is a higher number of total casualties in the after period compared to the before period, and the same number of total crashes in both before and after periods.
3. There is a higher number of total casualties but a lower number of total crashes in the after period compared to the before period, and no fatalities in the after period.
4. There is a slightly lower number of total casualties but a higher number of total crashes in the after period compared to the before period, and no fatalities in the after period.
5. There is the same number of total casualties, and the same number of total crashes, in both before and after periods (and no fatalities in the after period).
6. If there was at least one fatality in the after period, the combined cost to the community of fatalities and injuries in the after period is greater than the combined cost in the before period. This acknowledges the greater cost to the community of fatalities compared to injuries (with calculations based on the willingness to pay methodology, as already outlined).

7. Major road works such as curve re-alignment or highway duplication have significantly improved safety at the existing location.

Where a fixed speed camera location satisfied any of these criteria, a further desktop review of the location was conducted, to determine the appropriateness of the recommendation. This analysis considered the trend in casualty crashes, the circumstances of fatal crashes at the location and the specific types of crashes that occurred at the location. Where there was additional information which indicated the camera was effective, this is indicated in the report.

The analyses of fixed speed camera locations are available at Attachment C.

#### Point-to-point enforcement

A large proportion of the point-to-point enforcement program was rolled out during 2011. Of the 24 lengths that are part of the program, two point-to-point lengths were installed in 2010, 13 lengths were installed during 2011 and the remaining nine are being rolled out in 2012 and 2013. Of these lengths only one – Great Western Highway between Meadow Flat and Raglan – enforced for the entire 2011 review period.

The current analysis provides crash data for the five year period prior to the length commencing enforcement and available data for the period after the length was activated in warning period.

The analysis of the point-to-point speed camera program is available at Attachment D.

#### **Speed survey data**

Vehicle speeds were assessed at a state level. Vehicle speeds are assessed through annual speed surveys undertaken by the NSW Centre for Road Safety at the same locations every year. These speed surveys are conducted across NSW on a range of roads with a range of speed limits to gather current information about speeding behaviour of both light and heavy vehicles. In 2011 annual speed surveys were conducted at 164 locations across NSW.

The annual speed surveys measure free travel speeds, with a headway of four seconds. That is, only the speeds of vehicles that are unimpeded by other traffic are measured, therefore the survey provides a measure of the speed that drivers choose to travel rather than a measure of traffic congestion.

Speed surveys in 2011 were not undertaken at specific speed camera enforcement locations, therefore infringement data is being used as a proxy for speed data in this review.

Speed surveys will be undertaken at a sample of speed camera enforcement locations in the future so that speeding behaviour can be assessed for these programs.

#### **Infringement data**

Infringement data analysed in this report includes all penalty notices detected by Roads and Maritime Services red-light and speed cameras from July 2004 onwards (no infringement data is available prior to this date). Infringement data are publically available through the Office of State Revenue (<http://www.osr.nsw.gov.au/about/corporate/statistics/>).

## Results and discussion

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This review has found that overall, speed cameras are continuing to improve road safety in NSW. However three of the four programs are still in their infancy and a better understanding of the longer term effectiveness of these programs will require ongoing monitoring of their performance by the NSW Centre for Road Safety into the future.

Early results show that drivers are changing their behaviour, which overall is resulting in a reduction in crashes and casualties at camera locations and across the road network.

### Key findings

#### Mobile speed cameras

The analysis of the mobile speed camera program is available at Attachment A.

In August 2011, a review of the NSW mobile speed camera program found that in the first year of operation the program contributed to a 19 per cent statistically significant reduction in fatalities throughout NSW. This represents a saving of 84 lives and an estimated community saving of around \$490 million.

The ongoing impact of the mobile speed camera program is reflected in the provisional 2011 road toll. The provisional 2011 road toll is 376 persons killed on NSW roads. This result is the second lowest annual figure since 1944 (with 371 fatalities). The lowest recorded road toll in 2008 with 374 fatalities.

Speed survey results in 2011 show a continued suppression of speeding compared to 2008 and 2009, although there was a slight increase in speeding in most speed zones for light vehicles compared to 2010. With a few exceptions the results for heavy vehicles follow a similar trend to that of light vehicles, although generally a lower proportion of heavy vehicles exceed the speed limit.

While the results are generally positive, the results in 100 km/h zones showed there was an increase in speeding in 2011 compared to the period 2008 to 2010. These results coincide with an increase in the proportion of fatalities in 100km/h zones that are speed related. In 2010, 38 per cent (63 of 167) of fatalities in 100km/h speed zones were speed related, in 2011 46 per cent (71 of 154) were speed related. This increase in speed related crashes in 100 km/h zones supports that the zones should be the target of future mobile speed camera enforcement.

Notwithstanding this, the trend in road fatalities and annual speed surveys demonstrates that the small-scale interim mobile speed camera program is delivering positive road safety benefits. The reduction in travel speeds observed in the annual speed surveys provide strong evidence that the general deterrence provided by the re-introduction of mobile speed cameras have contributed to the reduction in fatalities.

In 2011 there were a total of 16,544 infringements resulting in a total fine revenue of \$2.58 million from mobile speed camera enforcement. The trend for infringements show two increases in the volume which coincide with an increase in the number of sites used for enforcement in those months. In the months following the use of new sites, the number of infringements decreased or stabilised. This trend is anticipated to continue as the program is expanded.

The mobile speed camera program will be expanded in the coming years to about 45 marked vehicles operating for 7,000 enforcement hours per month at around 2,500 locations. This way forward aims to increase the general deterrence of speeding, which is expected to deliver continued reductions in crashes and casualties and reductions in vehicles exceeding the speed limit.

Given the high proportion of speed-related crashes occurring on high speed roads, there will be a greater focus on deploying mobile speed cameras to high speed regional and rural roads to further drive down the road toll. These changes to the mobile speed camera program will be supported by improvements to mobile speed camera signage and markings to ensure that speed enforcement is fair and transparent.

### Red-light speed (safety) cameras

The analyses of red-light speed camera locations are available at Attachment B.

Overall, at the 91 red-light speed (safety) camera intersections there has been a 21 per cent reduction in crashes and a 26 per cent reduction in casualties at these locations since the cameras were installed comparing with a five year period prior to installation. When this is compared with the evaluation of a similar program in Victoria early results for the NSW program indicate that the expected road safety benefits are being achieved.

In 2011 there were a total of 156,790 infringements resulting in a total fine revenue of \$42.08 million at red-light speed camera intersections, however at this stage cameras have not been in operation for long enough for there to be a meaningful trend in infringements. It is expected that red-light running and speeding at red-light speed (safety) camera intersections will decrease over time, thereby reducing the number of infringements and fine revenue at these locations. This was recently shown in an evaluation undertaken by the Centre for Automotive Safety Research in South Australia<sup>1</sup>, which found that in the first year of operation, red-light speed cameras resulted in a decrease in red-light running and speeding over time. While red-light running decreased slowly over time, speeding decreased more rapidly. This demonstrates an improvement in driver behaviour as a result of red-light speed (safety) cameras.

While early results for these 91 locations are encouraging, it is too early to conclusively determine the effectiveness of individual locations and therefore no recommendations for review are proposed in the 2011 report. Typically at least five years of crash and casualty data are required to make a statistically significant assessment of a camera's effectiveness.

### Fixed speed cameras

The analyses of fixed speed camera locations are available at Attachment C.

A total of 97 fixed speed camera locations have been reviewed, with 88 found to have been effective from the initial analysis. Overall, when comparing the five years before the fixed speed cameras were installed to the current five year analysis period, the fixed speed camera program has delivered a 38 per cent reduction in the number of crashes resulting in an 87 per cent reduction in fatalities and a 37 per cent reduction in injuries at camera locations. In the five years before the cameras were installed there were 3,959 crashes, resulting in 61 fatalities and 2,124 injuries. In the current five year analysis period there were 2,451 crashes, resulting in eight fatalities and 1,344 injuries.

In 2011 there were a total of 313,849 infringements issued resulting in a total fine revenue of \$51.32 million at fixed speed camera locations. Compared to 2010, this is a reduction of 60,085 infringements and \$6.06 million in revenue. These data show that speeding behaviour has significantly reduced at many speed camera locations since they were introduced.

There were nine locations that were identified for further review based on the crash analysis criteria used. These locations were: Northern Distributor, Corrimal; New South Head Road, Edgecliff; Pacific Highway, Hungry Head; New England Highway, Kootingal; New England Highway, Lochinvar; F3 Freeway, Ourimbah; Pacific Highway, Valla Beach; Pacific Highway, Wardell; Castle Hill Road, West Pennant Hills. Desktop reviews were undertaken for these locations to gain an understanding of what occurred at each location.

Based on the desktop reviews, four locations were deemed effective and five were recommended for comprehensive field reviews to be undertaken by the NSW Centre for Road Safety. These locations are: Northern Distributor, Corrimal; New South Head Road, Edgecliff; Pacific Highway, Hungry Head; New England Highway, Kootingal and New England Highway, Lochinvar.

Safety reviews involve examining crash history, traffic volumes, road conditions, land use and high risk user behaviour near the fixed speed camera location. Safety reviews also involve the consideration of road safety issues raised by the community in regard to the locations. If during the review it is determined that the camera

<sup>1</sup> Mackenzie, J.R.R., Kloeden, C.N., and Hutchinson, T.P. (2012) *Analysis of infringement data from fixed red light and speed cameras at signalised intersections in South Australia*, Report No. CASR071, Centre for Automotive Safety Research, The University of Adelaide, South Australia.

is not delivering the expected safety benefits at the location, it will be recommended for removal and possible relocation.

If a camera is recommended for removal, alternative road safety treatments that are suitable to address any road safety issues will be investigated. Alternative treatments may involve improved signage, road works, traffic facilities, speed zoning reviews and targeted communications.

### Point-to-point speed cameras

The analysis of the point-to-point speed camera program is available at Attachment D.

It is too early to assess the effect of point-to-point enforcement on the 24 program lengths, as 13 lengths were installed in 2011, with another nine being installed in 2012/13. Only Great Western Highway between Meadow Flat and Raglan enforced for the entire 2011 review period. In the period 2005 to 2009 there were 11 heavy vehicle crashes resulting in one fatality and eight injuries. In 2011 there were three heavy vehicle crashes resulting in zero fatalities and one injury. During 2011, 14 speeding infringements were issued at this length.

A total of 289 speeding infringements were issued resulting in a total fine revenue of \$83,782 at point-to-point lengths in 2011. Infringement data for average speed offences in point-to-point enforcement lengths show a high level of compliance within the enforcement lengths and a low number of infringements. This is consistent with results in other point-to-point programs. Numerous studies have shown that point-to-point enforcement is typically associated with very high rates of compliance with posted speed limits even when traffic volume is high<sup>2</sup>. For example, rates of compliance associated with point-to-point enforcement (light and heavy vehicles) on the Hume Highway, Victoria have been reported at 1 – 2 per cent (Cameron 2008 in Soole et al 2011).

### **Future of NSW speed camera programs**

The NSW Centre for Road Safety will continue to annually review all individual speed cameras as well as the overall performance of speed camera programs as set out in the *NSW Speed Camera Strategy*. These reviews will be annually published to ensure that the programs remain transparent to the community.

The fixed speed camera program continues to provide positive road safety benefits to the locations where they are installed, and will be annually assessed to ensure they continue delivering a positive road safety benefit.

While the red-light speed, mobile speed and point-to-point speed camera programs are still in their infancy, early results are encouraging with some evidence of changes in driver behaviour. This is also reflected in an improvement in the provisional road toll for 2011. It is expected that the expansion of the red-light speed and mobile speed camera programs will deliver even greater results than the small scale programs that operated in 2011. While statistically significant analyses of these programs will not be possible for a few more years, the NSW Centre for Road Safety will continue to annually monitor their performance.

The NSW Centre for Road Safety recognises that opportunities exist to review major travel routes against criteria for each camera type to ensure that any speed cameras placed along the length are delivering the expected benefits and are the most appropriate camera type for the type of speeding behaviour being observed. This will support the NSW Police Force in conducting traditional speed enforcement on these routes. In the coming year the NSW Centre for Road Safety will also review the Federal Highway, the Kings Highway, the Princes Highway, the New England Highway and the F3 Freeway to identify locations where the use of speed camera enforcement will reduce crashes and improve safety.

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<sup>2</sup> Soole, D. W., Fleiter, J. and Watson, B. (2011) *Point-to-point speed enforcement: A technological overview, review of the empirical evidence and recommendations for better practice*, Draft final report for Austroads Steering Committee, Austroads, Sydney, Australia.

## Summary of actions

Over the next year the following actions will be undertaken:

- Safety reviews will be conducted at five speed camera locations and if found to not be delivering the expected safety benefits they will be recommended for removal and possible relocation.
- The rollout of an initial 500 new high-risk mobile speed camera locations, with further high risk locations to be assessed and prioritised (including community nominated sites made via the Safer Roads website at [www.saferroadsnsw.com.au](http://www.saferroadsnsw.com.au)).
- The rollout of enhanced mobile speed camera signage and markings. An additional warning sign will be placed before a mobile speed camera giving motorists up to 250 metres advance warning of a camera, rather than the current 50 metres. Mobile speed camera vehicles will also have more identifiable markings.
- The rollout of an expanded mobile speed camera program: from six to about 45 vehicles by July next year, operating at around 2,500 locations for 7,000 hours per month.
- The rollout of enhanced red-light speed (safety) camera signage (by the end of August 2012). Warning signs for red-light speed cameras will be clearer, and more than double in size.
- The rollout of an expanded red-light speed (safety) camera program from 91 to 200 by the end of 2014.
- Installing point-to-point enforcement of heavy vehicle speeding on two new lengths of the Pacific Highway, from Tyndale to Harwood, and Wardell to Ballina.
- Review the Federal Highway, the Kings Highway, the Princes Highway, the New England Highway and the F3 Freeway to identify locations where the use of speed camera enforcement will reduce crashes and improve safety.



## Appendices

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Appendix A: Analysis of NSW mobile speed camera program

Appendix B: Analysis of NSW red-light speed camera program

Appendix C: Analysis of NSW digital fixed speed camera program

Appendix D: Analysis of NSW point-to-point enforcement program

## Appendix A: Analysis of the NSW mobile speed camera program

### Overview of mobile speed camera enforcement locations

	Suburb/Town	Road
1	Aberdeen, Muswellbrook	New England Highway
2	Adamstown Heights, Merewether	Pacific Highway
3	Albion Park Rail, Croom	Princes Highway
4	Alfredtown, East Wagga Wagga, Forest Hill, Gumly Gumly	Sturt Highway
5	Allandale, Greta, Harpers Hill, Lochinvar	New England Highway
6	Alleena, West Wyalong	Newell Highway
7	Ambarvale, Bradbury, Campbelltown, Rosemeadow, St Helens Park	Appin Road
8	Annandale, Camperdown, Leichhardt, Petersham, Stanmore	Parramatta Road
9	Armidale, Black Mountain, Tilbuster	New England Highway
10	Arararra Headland, Mullaway, Safety Beach, Sandy Beach, Woolgoolga	Pacific Highway
11	Ashfield, Haberfield, Summer Hill	Parramatta Road
12	Auburn, Clyde, Granville, Harris Park	M4 Motorway
13	Avonside, Berridale	Kosciuszko Road
14	Awaba, Ryhope	Cessnock Road
15	Baan Baa, Boggabri	Kamilaroi Highway
16	Back Forest, Coolangatta	Gerroa Road
17	Balgowlah	Sydney Road
18	Balickera, Eagleton, Ferodale, Karuah, Twelve Mile Creek	Pacific Highway
19	Ballina, Cumbalum, Tintenbar, West Ballina	Tamarind Drive
20	Ballina, Pimlico, Uralba, West Ballina	Pacific Highway, River Street,
21	Bankstown, Condell Park	Edgar Street
22	Barrack Heights, Mount Warrigal, Oak Flats, Shellharbour City, Warilla	Lake Entrance Road
23	Barraganyatti, Clybucca, Eungai Rail	Pacific Highway
24	Bass Hill, Lansdowne, Villawood	Hume Highway
25	Bathurst, Kelso	Great Western Highway
26	Beaumont Hills, Kellyville, Kellyville Ridge, Stanhope Gardens	Windsor Road
27	Belford, Branxton, East Branxton, Lower Belford	New England Highway
28	Belford, Singleton, Whittingham	New England Highway
29	Belmont South, Blacksmiths, Marks Point, Pelican, Little Pelican	Pacific Highway
30	Ben Bullen, Cullen Bullen	Castlereagh Highway
31	Bennetts Green, Windale	Pacific Highway
32	Beresfield	John Renshaw Drive
33	Berkeley, Brownsville, Dapto, Kanahooka, Kembla Grange, Unanderra, Yallah	Southern Freeway
34	Beverley Park, Blakehurst, Carlton, Carss Park, Kogarah Bay	Princes Highway
35	Black Mountain, Guyra	New England Highway
36	Blackheath	Great Western Highway
37	Blacktown	Blacktown Road, Main Street
38	Blakehurst, South Hurstville	King Georges Road
39	Blayney	Mid Western Highway
40	Boambee, Boambee East, Bonville, Coffs Harbour, North Boambee Valley	Pacific Highway
41	Bomaderry, Cambewarra	Cambewarra Road, Moss Vale
42	Bookham, Bowning	Hume Highway
43	Bourkelands, Mount Austin, Tolland, Turvey Park	Bourke Street
44	Bowenfels, South Bowenfels, South Littleton	Great Western Highway
45	Bowral, Burradoo, Mittagong	Bowral Road, Moss Vale Road
46	Boxers Creek, Brisbane Grove, Goulburn	Hume Highway
47	Boxers Creek, Carrick, Carrick, Marulan	Hume Highway
48	Bredbo, Colinton	Monaro Highway
49	Broadwater, East Wardell, Wardell	Pacific Highway
50	Broadwater, Rileys Hill, Woodburn	Pacific Highway
51	Broughton Village, Gerringong, Toolijooa, Willow Vale	Princes Highway
52	Bulli, Cataract, Maddens Plains, Thittoul	Princes Highway
53	Burwood, Concord, Croydon, Five Dock	Parramatta Road
54	Burwood, Concord, Homebush, North Strathfield, Strathfield	Parramatta Road
55	Camden, Elderslie, Kirkham, Narellan	Camden Valley Way
56	Camperdown, Chippendale, Forest Lodge, Glebe, Ultimo	Parramatta Road
57	Capertree, Round Swamp	Castlereagh Highway
58	Cartwright, Hinchinbrook, Hoxton Park, Miller, Prestons	Hoxton Park Road
59	Cassilis, Uarbry	Golden Highway
60	Casula	Hume Highway

61	Cataract	Southern Freeway
62	Cataract, Darkes Forest, Maddens Plains	Southern Freeway
63	Centennial Park, Woollahra	Oxford Street
64	Chatsworth, Harwood, James Creek, Maclean	Pacific Highway
65	Cherrybrook, Dural	New Line Road
66	Claremont Meadow, Kingswood, St Marys	Great Western Highway
67	Coffs Harbour, Korora, Moonee Beach, Sapphire Beach	Pacific Highway
68	Collaroy	Pittwater Road
69	Conjola, Mondayong, Twelve Mile Peg	Princes Highway
70	Coolgardie, Pimlico, Wardell	Pacific Highway
71	Cootamundra, Wallendbeen	Burley Griffin Way
72	Corindi Beach, Dirty Creek, Halfway Creek	Pacific Highway
73	Corowa	Redlands Road
74	Corrimal, Fairy Meadow, Fernhill, Russell Vale, Towradgi	Princes Highway
75	Crackenback, Kosciuszko National Park	Alpine Way
76	Cremonne, Mosman, Neutral Bay	Military Road
77	Cronulla, Woolooware	Kingsway
78	Culcairn	Olympic Highway
79	Dapto	Princes Highway
80	Darawank, Hallidays Point, Rainbow Flat, Tuncurry	The Lakes Way
81	Darkes Forest, Helensburgh, Maddens Plains, Stanwell Tops, Waterfall, Woronora Dam	Southern Freeway
82	Darlington, Dunolly, Gowrie, McDougalls Hill, Rixs Creek, Singleton Heights	New England Highway
83	Dean Park, Dean Park, Doonside, Glendenning, Oakhurst, Quakers Hill	Richmond Road
84	Denham Court, Glenfield, Ingleburn, Varroville	Hume Highway
85	Dirty Creek, Halfway Creek, Wells Crossing	Pacific Highway
86	Doonside	Knox Road
87	Drummoyne	Lyons Road
88	Drummoyne, Five Dock, Russel Lea	Lyons Road
89	Dubbo	Wingewarra Street
90	Dundas, Oatlands, Parramatta, Rydalmere, Telopea	Kissing Point Road
91	East Gosford, Point Frederick	York Street
92	East Lismore, Girards Hill, Goonellabah, Lindendale, Lismore, Richmond Hill, South Lismore, Wollongbar	Bruxner Highway
93	East Maitland, Maitland, South Maitland	New England Highway
94	East Tamworth, Nemingha, Tintinhull	New England Highway
95	Evans Plains, Robin Hill	Mid Western Highway
96	Fairy Meadow	Princes Highway
97	Finley, Tocumwal	Newell Highway
98	Forbes, Garema	Back Marsden Road
99	Freemans Waterhole	Palmers Road
100	Gateshead	Pacific Highway
101	Geurie, Wongarbon	Mitchell Highway
102	Gilgandra	Newell Highway
103	Gillieston Heights, Maitland	Cessnock Road
104	Glenthorne, Pampoolah, Dumaresq Island	Pacific Highway
105	Gordon, Pymble	Pacific Highway
106	Greenacre	Hume Highway
107	Hampton, Lowther	Castlereagh Highway
108	Hampton, Lowther	Jenolan Caves Road
109	Hartley, Little Hartley	Great Western Highway
110	Hartley, South Bowenfels	Great Western Highway
111	Heatherbrae	Pacific Highway
112	Hopefield	Hopefield Rand Road
113	Jacky Bulbin Flat	Pacific Highway
114	Karuah, North Arm Cove, Tea Gardens	Pacific Highway
115	Kellyville Ridge, Rouse Hill	Windsor Road
116	Kelso	Gilmour Street
117	Kembla Grange, Unanderra	Princes Highway
118	Kingsvale, Wombat, Young	Back Creek Road
119	Kirkconnell, Meadow Flat	Great Western Highway
120	Kurrajong, Kurrajong Hills	Bells Line of Road
121	Leppington	Camden Valley Way - North
122	Leppington	Camden Valley Way - South
123	Loftville, South Gundurimba, South Lismore	Bruxner Highway
124	Lucas Heights	Heathcote Road
125	Marchmont, Murrumbateman	Barton Highway
126	Meadow Flat, Mount Lambie	Great Western Highway

127	Monak	Sturt Highway
128	Moree	Newell Highway - North
129	Moree	Newell Highway - South
130	Moruya	Princes Highway
131	North Albury	Hume Highway
132	Paddys River	Hume Highway
133	Port Kembla, Warrawong	King Street
134	Pymble, St Ives	Mona Vale Road
135	Raleigh, Urunga	Pacific Highway
136	Tweeds Heads West	Piggabeen Road
137	Wentworth Falls	Great Western Highway
138	West Wyalong, Wyalong	Newell Highway
139	Widgelli, Yoogali	Irrigation Way
140	Wollogorang, Yarra	Federal Highway

Analysis to date of the current NSW mobile speed camera program suggests that the program has been effective in producing reductions in driver speed across the NSW road network, as well as reductions in the road toll.

### NSW Road toll data

In August 2011, the review of the NSW mobile speed camera program<sup>1</sup> found that in the first year of operation there was a 19 per cent statistically significant reduction ( $p < 0.001$ ) in fatalities throughout NSW since the re-introduction of mobile speed cameras (chi-square test of independence at 0.05 probability level).

In the year before mobile speed cameras (19 July 2009 – 18 July 2010) there were 449 fatalities in NSW, whereas in the year after mobile speed cameras (19 July 2010 – 18 July 2011) there were 365 fatalities. This represents a saving of 84 lives and an estimated community saving of around \$490 million (based on willingness-to-pay methodology).

The ongoing impact of the mobile speed camera program is reflected in the provisional 2011 road toll.

There were 376 persons killed on NSW roads in 2011 (provisional figure). The 2011 provisional road toll is the number of fatalities recorded for 2011 as at 1 January 2012. The provisional 2011 road toll result for NSW is a continuation of the significant improvements in the road toll over several decades. From a peak of 1,384 fatalities in 1978 the NSW road toll has been reduced by more than 70 per cent to the 2011 provisional figure.

The 2011 result represents the second lowest annual figure since 1944 (with 371 fatalities) - the lowest fatality total since 1944 occurred in 2008 (with 374 fatalities). Current NSW road toll levels are a remarkable achievement given the doubling of the population, the eleven fold increase in licence holders and the sixteen fold increase in registered motor vehicles since 1944.

### 2011 Annual speed surveys

The results represent a summary of annual speed survey results from 2008-2011. Results are presented separately for light and heavy vehicles and for mean speed, 85th percentile speed (i.e. speed that 85 per cent of vehicles are below and 15 per cent of vehicles are exceeding), percentage exceeding the speed limit by up to 10km/h and percentage exceeding the speed limit by more than 10km/h.

<sup>1</sup> NSW Centre for Road Safety (2011). NSW Mobile Speed Camera Review. NSW Centre for Road Safety.

**Mean speed and 85th percentile speed survey results, 2008-2011**

Posted Speed Limit	Light Vehicles Mean Speeds (km/h)				Light Vehicles 85th Percentile Speeds (km/h)			
	2008	2009	2010	2011	2008	2009	2010	2011
40 km/h School Zone	45.7 km/h	45.1 km/h	43.6 km/h	44.2 km/h	53.5 km/h	52.7 km/h	50.9 km/h	51.4 km/h
40 km/h	38.7 km/h	38.9 km/h	38.4 km/h	38.3 km/h	44.2 km/h	44.6 km/h	44.0 km/h	43.8 km/h
50 km/h	53.6 km/h	53.6 km/h	52.1 km/h	52.3 km/h	60.8 km/h	61.1 km/h	59.1 km/h	59.4 km/h
60 km/h	58.6 km/h	58.7 km/h	57.7 km/h	57.4 km/h	65.4 km/h	65.6 km/h	64.2 km/h	64.3 km/h
70 km/h	69.8 km/h	69.6 km/h	67.9 km/h	67.8 km/h	77.7 km/h	77.8 km/h	75.8 km/h	75.6 km/h
80 km/h	77.4 km/h	77.8 km/h	76.1 km/h	76.4 km/h	85.6 km/h	85.9 km/h	84.5 km/h	86.4 km/h
90 km/h - small sample	89.0 km/h	88.1 km/h	91.1 km/h	90.9 km/h	97.7 km/h	96.7 km/h	99.0 km/h	99.2 km/h
100 km/h	97.9 km/h	98.8 km/h	98.6 km/h	99.1 km/h	105.7 km/h	106.5 km/h	106.2 km/h	106.7 km/h
110 km/h*	109.6 km/h	109.9 km/h	108.8 km/h	109.2 km/h	117.7 km/h	118.0 km/h	116.6 km/h	116.7 km/h

Posted Speed Limit	Heavy Vehicles Mean Speeds (km/h)				Heavy Vehicles 85th Percentile Speeds (km/h)			
	2008	2009	2010	2011	2008	2009	2010	2011
40 km/h School Zone	42.3 km/h	41.9 km/h	41.2 km/h	42.4 km/h	48.9 km/h	48.3 km/h	47.1 km/h	49.2 km/h
40 km/h	37.5 km/h	38.6 km/h	37.7 km/h	37.3 km/h	42.7 km/h	44.2 km/h	42.7 km/h	42.4 km/h
50 km/h	51.9 km/h	53.2 km/h	51.8 km/h	51.2 km/h	59.3 km/h	60.3 km/h	58.6 km/h	58.1 km/h
60 km/h	56.9 km/h	56.4 km/h	56.2 km/h	55.8 km/h	64.3 km/h	63.8 km/h	63.2 km/h	63.0 km/h
70 km/h	66.4 km/h	66.1 km/h	65.4 km/h	64.9 km/h	75.2 km/h	75.5 km/h	74.4 km/h	73.4 km/h
80 km/h	72.7 km/h	76.3 km/h	72.0 km/h	72.9 km/h	82.4 km/h	89.6 km/h	81.6 km/h	81.9 km/h
90 km/h - small sample	85.9 km/h	85.0 km/h	91.1 km/h	90.0 km/h	95.6 km/h	94.5 km/h	99.4 km/h	98.9 km/h
100 km/h	96.3 km/h	97.4 km/h	98.0 km/h	98.0 km/h	102.7 km/h	103.5 km/h	104.4 km/h	104.4 km/h
110 km/h*	101.4 km/h	100.7 km/h	101.8 km/h	100.6 km/h	106.7 km/h	106.4 km/h	109.0 km/h	106.8 km/h

\*Note heavy vehicle speed limit is 100 km/h and results presented indicate the percentage of heavy vehicles exceeding 100 km/h in this section.

**Percentage of vehicles exceeding the speed limit , 2008-2011**

Posted Speed Limit	Light Vehicles Exceeding the Speed Limit - by up to 10km/h				Light Vehicles Exceeding the Speed Limit +10km/h			
	2008	2009	2010	2011	2008	2009	2010	2011
40 km/h School Zone	46.2 %	46.4 %	44.0 %	45.1 %	25.7 %	23.0 %	17.5 %	19.7 %
40 km/h	29.4 %	30.2 %	27.8 %	27.2 %	4.0 %	4.5 %	3.4 %	3.7 %
50 km/h	49.5 %	48.8 %	46.4 %	46.6 %	17.0 %	16.8 %	12.6 %	13.2 %
60 km/h	31.8 %	32.3 %	28.8 %	28.2 %	7.2 %	7.3 %	5.4 %	5.8 %
70 km/h	36.4 %	35.9 %	31.3 %	30.2 %	10.1 %	10.4 %	6.6 %	6.3 %
80 km/h	28.4 %	29.8 %	26.3 %	26.1 %	7.8 %	8.8 %	6.3 %	6.6 %
90 km/h - small sample	32.5 %	29.6 %	38.0 %	38.5 %	10.3 %	9.0 %	11.8 %	13.4 %
100 km/h	33.6 %	34.5 %	32.2 %	34.4 %	7.6 %	8.2 %	9.0 %	8.9 %
110 km/h*	38.7 %	40.8 %	37.5 %	38.9 %	9.9 %	9.3 %	6.4 %	7.0 %

Posted Speed Limit	Heavy Vehicles Exceeding the Speed Limit - by up to 10km/h				Heavy Vehicles Exceeding the Speed Limit +10km/h			
	2008	2009	2010	2011	2008	2009	2010	2011
40 km/h School Zone	41.1 %	42.2 %	36.2 %	43.3 %	13.1 %	10.1 %	10.2 %	12.6 %
40 km/h	21.4 %	26.6 %	22.8 %	21.0 %	2.9 %	5.4 %	3.6 %	3.0 %
50 km/h	43.0 %	45.6 %	44.7 %	42.5 %	14.0 %	16.7 %	12.5 %	10.7 %
60 km/h	27.0 %	26.7 %	25.8 %	25.4 %	6.4 %	5.0 %	3.9 %	4.5 %
70 km/h	28.7 %	28.6 %	27.3 %	23.7 %	5.4 %	5.7 %	4.2 %	3.5 %
80 km/h	22.4 %	23.6 %	21.2 %	23.2 %	5.5 %	9.8 %	5.1 %	5.9 %
90 km/h - small sample	28.3 %	27.2 %	41.3 %	34.8 %	6.6 %	6.3 %	14.0 %	13.6 %
100 km/h	34.3 %	34.5 %	34.1 %	34.0 %	3.0 %	3.2 %	4.8 %	4.8 %
110 km/h*	45.8 %	48.1 %	39.8 %	44.9 %	8.7 %	8.1 %	12.9 %	8.8 %

\*Note heavy vehicle speed limit is 100 km/h and results presented indicate the percentage of heavy vehicles exceeding 100 km/h in this section.

### Light vehicles

In 2011, light vehicle speed survey results indicate:

- 50km/h speed zones
  - 47 per cent of drivers were speeding up to 10km/h above the posted speed limit, and a further 13 per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 59km/h, the mean speed was 52km/h.
- 100km/h speed zones
  - 34 per cent of drivers were speeding up to 10km/h above the posted speed limit, and a further nine per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 107km/h, the mean speed was 99km/h.

### Heavy vehicles

In 2011, heavy vehicle speed surveys results indicate:

- 50km/h speed zones
  - 43 per cent of drivers were speeding up to 10km/h above the posted speed limit, and a further 11 per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 58km/h, the mean speed was 51km/h.
- 100km/h speed zones
  - 34 per cent of drivers were speeding up to 10km/h above the posted speed limit, and a further five per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 104km/h, the mean speed was 98km/h.

## **Trends in speed survey results**

Over the last four years the general trend has been a decrease in the proportion of light vehicles exceeding the speed limit across most speed zones. This includes a significant decrease in the proportion of vehicles exceeding the speed limit in 2010, coinciding with the introduction of mobile speed cameras and installation of safety cameras. Results in 2011 were similar to 2010, although there was a slight increase in speeding in most speed zones for light vehicles.

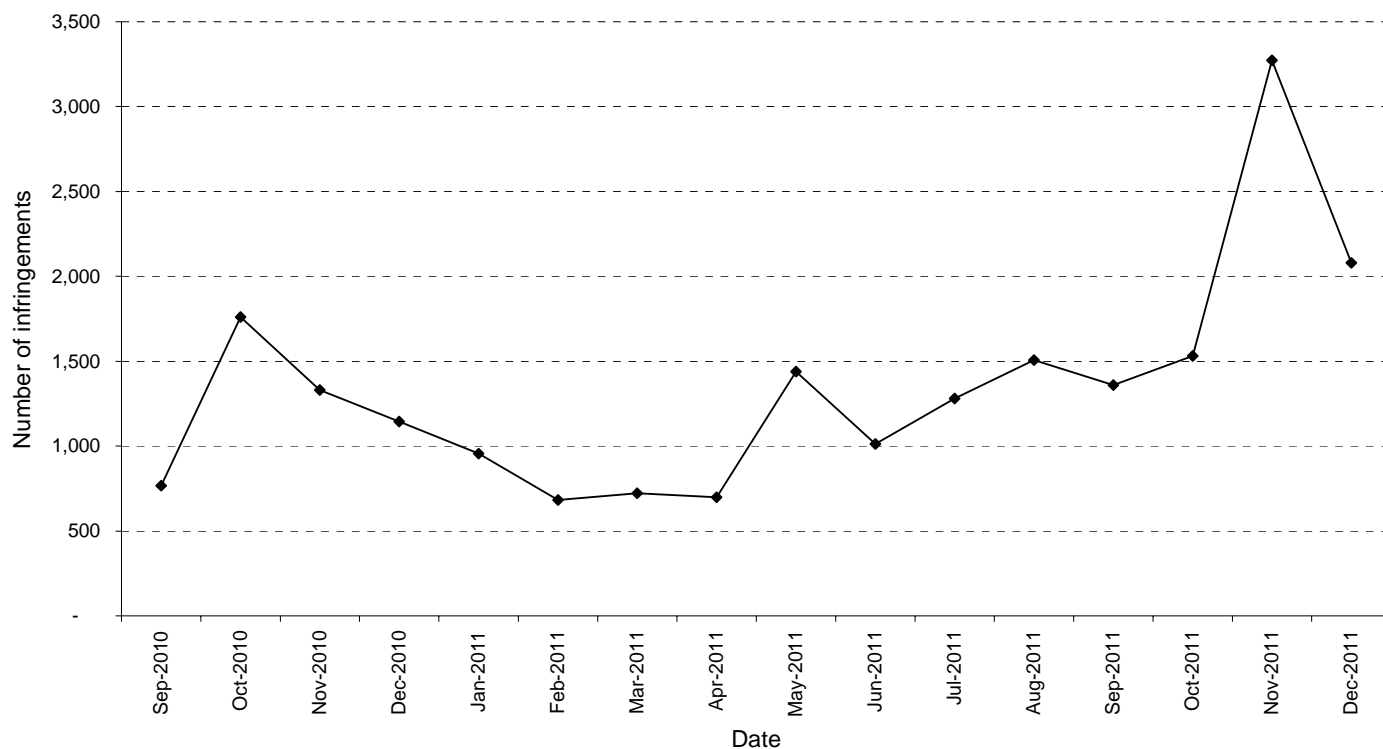
With a few exceptions the results for heavy vehicles follow a similar trend to that of light vehicles, although generally a lower proportion of heavy vehicles exceed the speed limit. In speed zones posted with a 110km/h speed limit, heavy vehicles have a speed limit of 100km/h. The results show that a larger proportion of heavy vehicles exceed the 100km/h speed limit in these zones than light vehicles exceeding 110km/h.

While the survey results do not directly mirror the road toll they reflect the road toll trends, especially with respect to recent speed camera initiatives. These include:

- A slight upward trend in speeds from 2008 to 2009 when there was a significant increase in the road toll.
- In 2010 there was an immediate and significant reduction in vehicle speeds coinciding with the reintroduction of the mobile speed camera program and the installation of safety cameras. Specifically, there were significant reductions in the proportion of vehicles exceeding the speed limit and exceeding the limit by 10km/h or more across most speed zones.
- The results in 2011 show a continued suppression of speeding, when compared to results from 2008 to 2009, however there have been some increases in speeding when compared to 2010.
- In high speed zones where there was an increase in speeding in 2011 compared to 2008 to 2010. These results reflect the increase in the proportion of fatalities in 100 km/h zones that are speed-related. In 2010, 38 per cent (63 of 167) of fatalities in 100km/h speed zones were speed-related, in 2011 46 per cent (71 of 154) were speed-related.

## Mobile speed camera infringements

Mobile speed camera program infringement data



In 2011 there were a total of 16,544 infringements resulting in a total fine revenue of \$2.58 million from mobile speed camera enforcement.

Since the program commenced, the number of sites available for use and the number of sites used each month has increased over time as ongoing assessments to identify suitable enforcement sites are completed. However, all selected sites are within the 142 locations published on the website. There are two months where there are peaks in infringement volumes. An increase in infringements usually comes when mobile speed cameras are enforcing in less frequently used locations or locations that have not been used before. In both May 2011 and November 2011 there were increases in the number of sites used for enforcement in those months. In the months following the use of new sites, the number of infringements decreased or stabilised. This trend is to be anticipated; for example fixed speed enforcement follows the same type of pattern, with the difference being that fixed speed cameras are in the same place 24/7 meaning that reductions in infringements are more consistent.

### Summary

The trend in road fatalities and annual speed surveys demonstrates that the road safety benefits of the small-scale interim mobile speed camera program are being realised on NSW roads. The reduction in travel speeds observed in the annual speed surveys provide strong evidence that the general deterrence provided by the re-introduction of mobile speed cameras have contributed to the reduction in fatalities.

## Appendix B: Analysis of the NSW red-light speed (safety) camera program

### Overview of red-light speed camera locations (intersections)

	Main Street	Cross Street	Suburb
1	Park Avenue	Northcott Drive	Adamstown
2	McEvoy Street	Botany Road	Alexandria / Waterloo
3	Frederick Street	Hume Highway	Ashfield
4	M4 Wb Off Ramp / Silverwater Road	M4 W/B on Ramp / Silverwater Road	Auburn
5	Meredith Street	Hume Highway	Bankstown
6	Windsor Road	Old Northern Road / Seven Hills Road	Baulkham Hills
7	Forest Road	Harrow Road	Bexley
8	Bungarribee Road	Reservoir Road	Blacktown
9	Great Western Highway	Reservoir Road	Blacktown
10	Lancaster Street	Kildare Road	Blacktown
11	Newton Road	Flushcombe Road	Blacktown
12	Sunnyholt Road	Main Street	Blacktown
13	Old South Head Road	Bondi Road	Bondi Junction
14	Parramatta Road	Burwood Road	Burwood / Concord
15	Cumberland Highway	Cabramatta Road West	Cabramatta West
16	Kellicar Road	Narellan Road	Campbelltown
17	Moore-Oxley Bypass	Broughton Street	Campbelltown
18	Canterbury Road	Bexley Road	Campsie
19	Cumberland Highway	St Johns Road	Canley Heights
20	Sackville Street	Canley Vale Road	Canley Vale
21	Kingsway	Gannons Road	Caringbah
22	Showground Road	Victoria Avenue	Castle Hill
23	Waldron Road	Hector Street	Chester Hill / Sefton
24	Pacific Highway	Hume Street	Crows Nest
25	Craigend Street	McLachlan Avenue	Darlinghurst
26	Pittwater Road	Harbord Road	Dee Why
27	Blaxland Road	May Street	Eastwood
28	Hamilton Road	The Boulevarde	Fairfield
29	Princes Highway	O'Briens Road	Figtree
30	Fairlight Street	Ramsay Road	Five Dock
31	Woodville Road	M4 on Ramp	Granville
32	Woodville Road	Guildford Road	Guildford
33	Dobroyd Parade	Mortley Drive	Haberfield
34	Parramatta Road	Sloane Street	Haberfield
35	Tudor Street	Beaumont Street	Hamilton
36	Pacific Highway	Parry Street	Hamilton East
37	Arthur Street	Centenary Drive	Homebush West
38	Ryde Road	Pittwater Road	Hunters Hill
39	Anzac Parade	Todman Avenue	Kensington
40	Bexley Road	William Street	Kingsgrove
41	Acacia Road	President Avenue	Kirrawee
42	Park Road	Princes Highway	Kogarah Bay
43	Griffiths Road	Turton Road	Lambton
44	Henry Lawsons Drive / Woodville Road	Hume Highway	Lansdowne / Villawood
45	Parramatta Road	West Street	Leichhardt
46	Olympic Drive	Vaughan Street	Lidcombe
47	Copeland Street	Elizabeth Drive	Liverpool
48	Sydenham Road	Victoria Road	Marrickville
49	O'Riordan Street	Gardeners Road	Mascot
50	O'Riordan Street	Coward Street	Mascot
51	Maitland Road	Maud Street	Mayfield West
52	Great Western Highway	Coleman Street / Hawkesbury Road	Mays Hill / Westmead
53	Newbridge Road	Henry Lawson Drive	Milperra
54	Kingsway	Port Hacking Road	Miranda
55	Anzac Parade	Lang Road	Moore Park
56	Anzac Parade / Flinders Street	Moore Park Road	Moore Park
57	Newbridge Road	Stockton Avenue	Moorebank
58	Military Road	Cowles Road	Mosman
59	Wicks Road	Epping Road	North Ryde
60	Old Windsor Road	Cumberland Highway (Hart Drive)	Northmead
61	Moore Park Road	Oxford Street	Paddington
62	South Dowling Street	Fitzroy Street / Moore Park Road	Paddington / Surry Hills
63	Victoria Road	Church Street	Parramatta
64	Pennant Hills Road	Beecroft Road (W)	Pennant Hills
65	Gordon Street	New Canterbury Road	Petersham



66	Avoca Street	Darley Road	Randwick
67	Chalmers Street	Cleveland Street	Redfern
68	Bestic Street	West Botany Street	Rockdale
69	Princes Highway	Bay Street / the Sevenways	Rockdale
70	King Georges Road	Moorefields Road	Roselands
71	Canterbury Road	King Georges Road	Roselands / Wiley Park
72	Victoria Road	Evans Street	Rozelle
73	Wellington Street	Victoria Road	Rozelle
74	Victoria Road	Devlin Street	Ryde
75	Silverwater Road	M4 E/B on Ramp	Silverwater
76	Victoria Street	Hassall Street	Smithfield
77	Parker Street	Jamison Road	South Penrith
78	Cumberland Highway	Old Prospect Road	South Wentworthville
79	Great Western Highway	Charles Hackett Drive / Pages Road	St Marys
80	Cleveland Street	South Dowling Street	Surry Hills
81	Pennant Hills Road	Parkes Street	Thornleigh
82	Wattle Street	William Henry Street	Ultimo
83	Princes Highway	Five Islands Road	Unanderra
84	Hume Highway	Bigge Street	Warwick Farm
85	Bourke Street	Botany Road	Waterloo
86	Great Western Highway	Station Street	Wentworthville
87	Pennant Hills Road	Eaton Road	West Pennant Hills
88	Ryde Road	Lady Game Drive	West Pymble
89	Windang Road	Boronia Avenue	Windang
90	Corrimal Street	Burelli Street	Wollongong
91	Gladstone Avenue	Princes Highway	Wollongong

## Red-light speed (safety) camera location: Park Avenue and Northcott Drive, Adamstown

There is one camera at the intersection.

### Camera 1

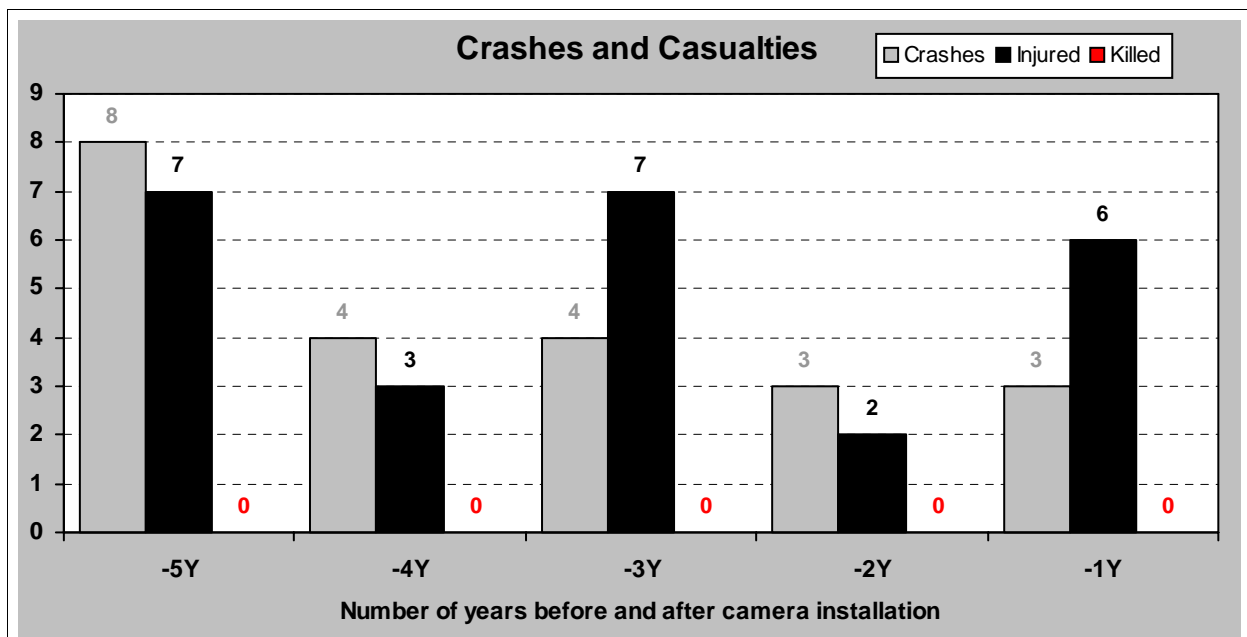
The red-light speed (safety) camera at the intersection of Park Avenue and Northcott Drive, Adamstown commenced issuing warning letters in May 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 22 crashes resulting in 25 injuries and 0 fatalities.

In the 223 day period from installation to the end of 2011, there were 0 crashes resulting in 0 injuries and 0 fatalities.

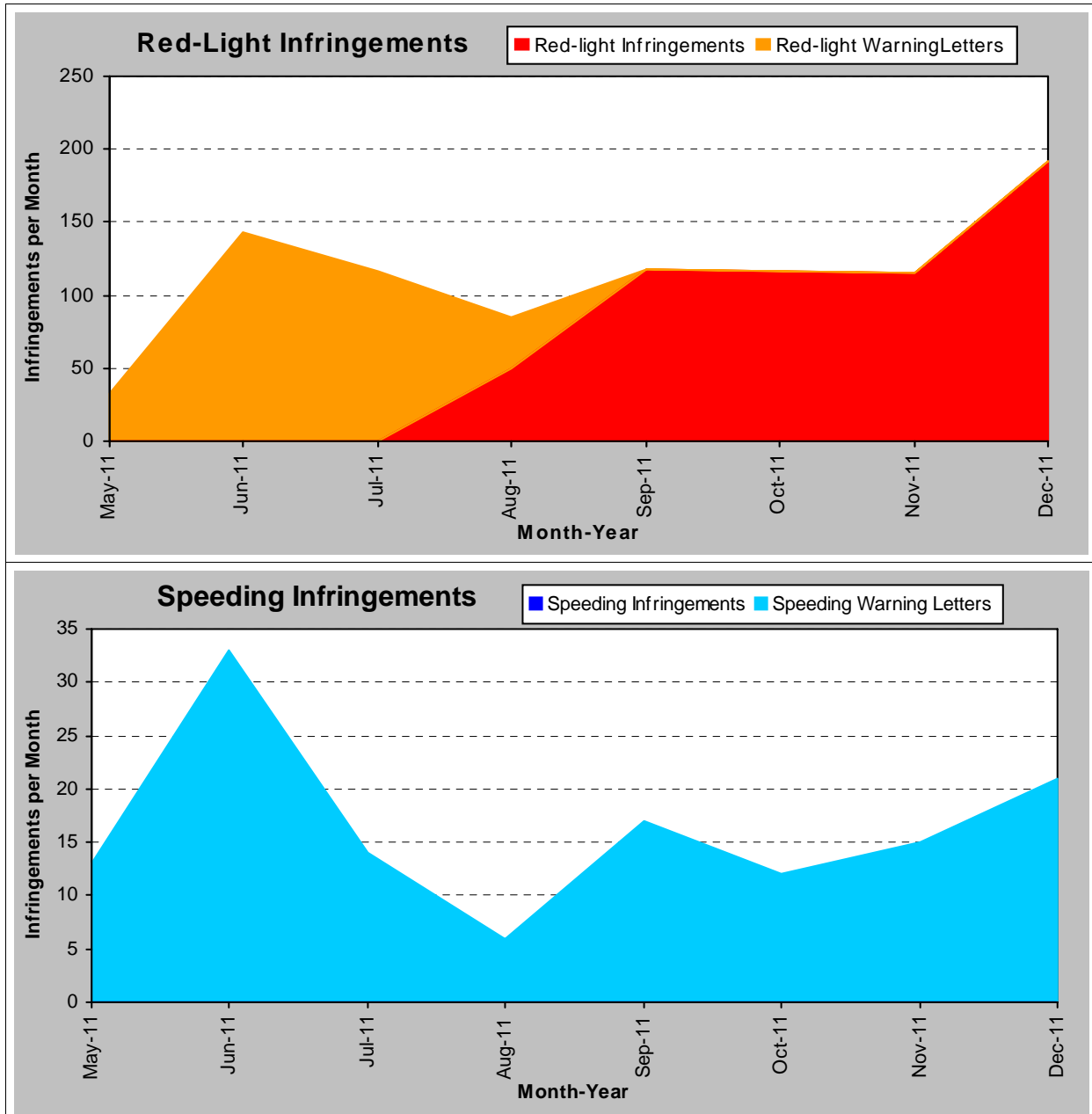
This represents a 100 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: McEvoy St and Botany Rd, Alexandria / Waterloo

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of McEvoy St and Botany Rd, Waterloo commenced issuing warning letters in June 2010. The camera enforces red-light running only.

### Camera 2

The red-light speed (safety) camera at the intersection of McEvoy St and Botany Rd, Alexandria commenced issuing warning letters in June 2010. The camera enforces red-light running only.

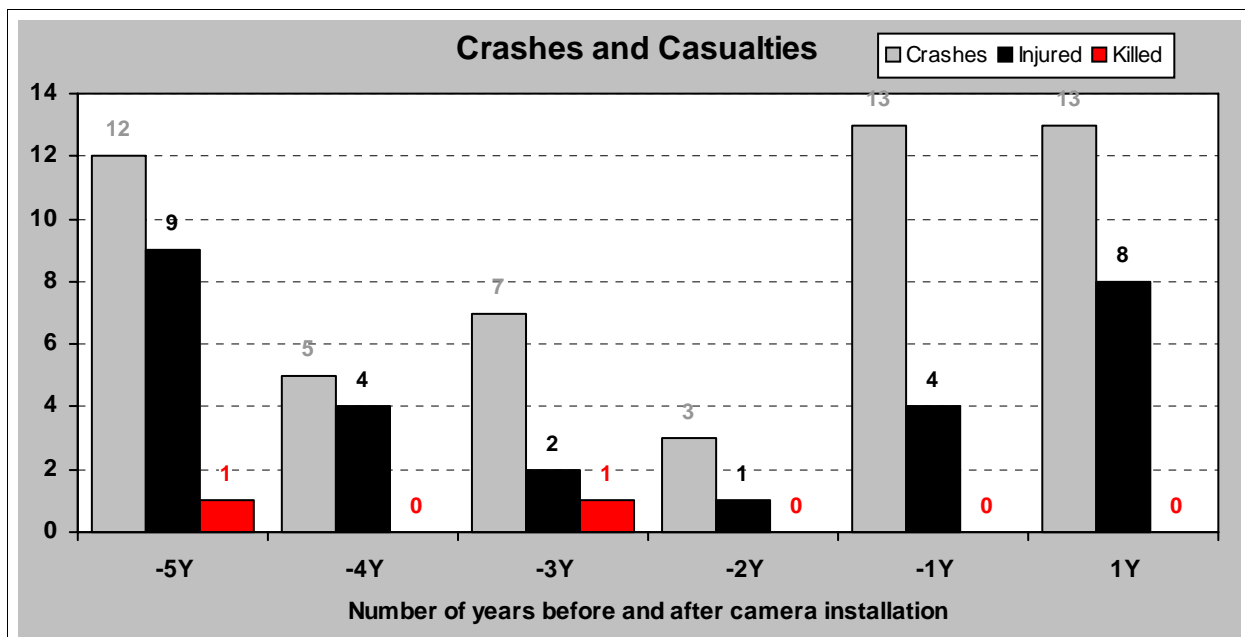
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 40 crashes resulting in 20 injuries and 2 fatalities.

In the 550 day period from installation to the end of 2011, there were 16 crashes resulting in 11 injuries and 0 fatalities.

This represents a 33 per cent increase in the yearly average number of crashes and a 66 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

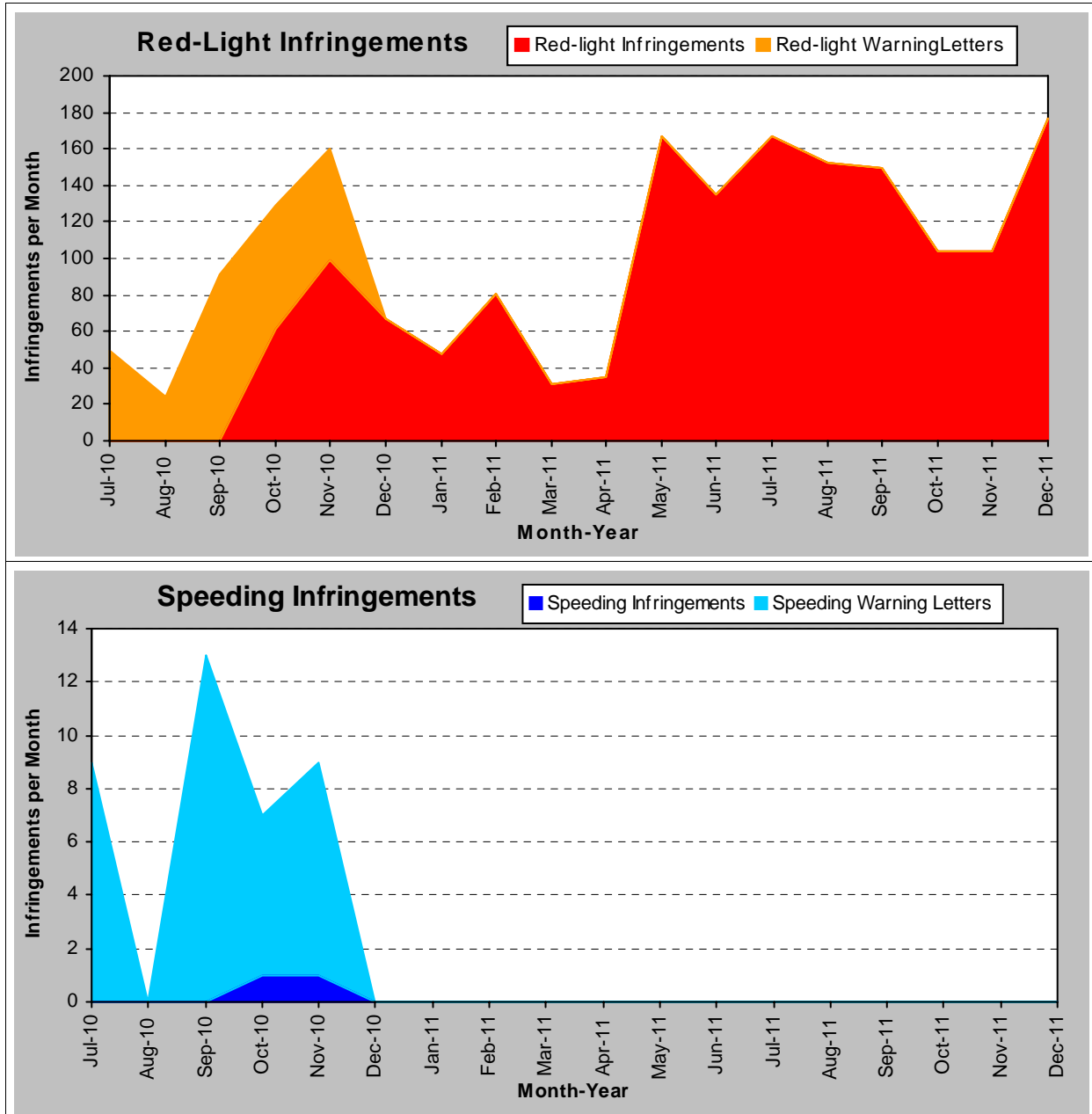
Provisional crash data shows there were 10 crashes resulting in 10 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Frederick Street and Hume Highway, Ashfield

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

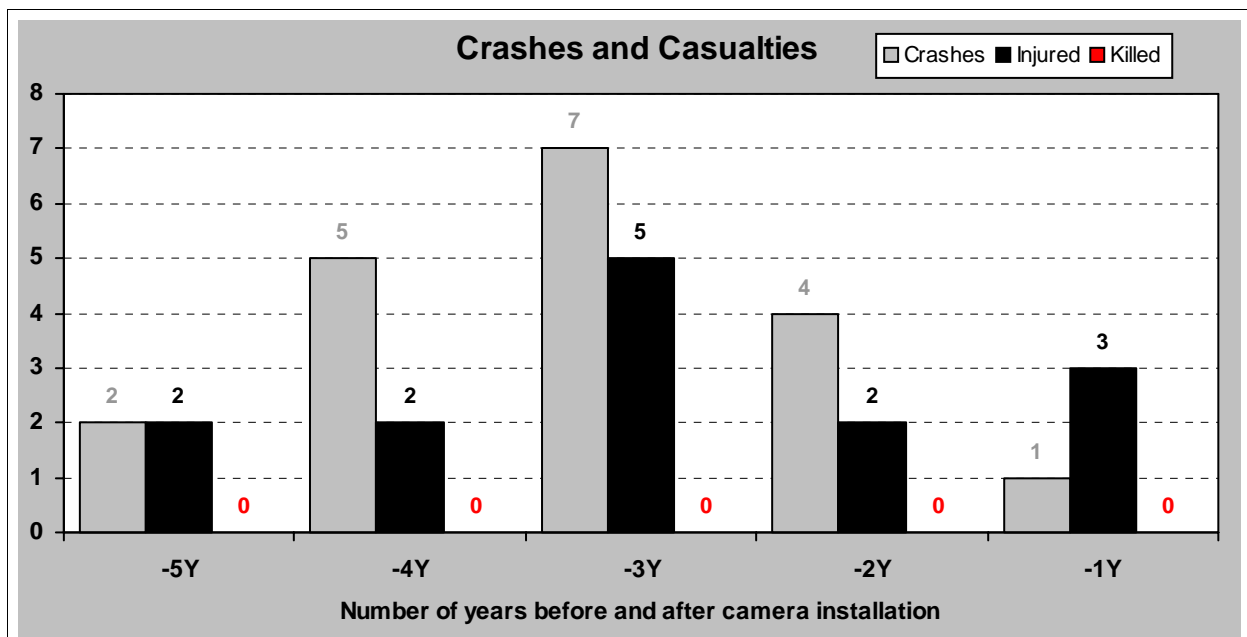
The red-light speed (safety) camera at the intersection of Frederick Street and Hume Highway, Ashfield commenced issuing warning letters in March 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 19 crashes resulting in 14 injuries and 0 fatalities.

In the 291 day period from installation to the end of 2011, there were 5 crashes resulting in 4 injuries and 0 fatalities.

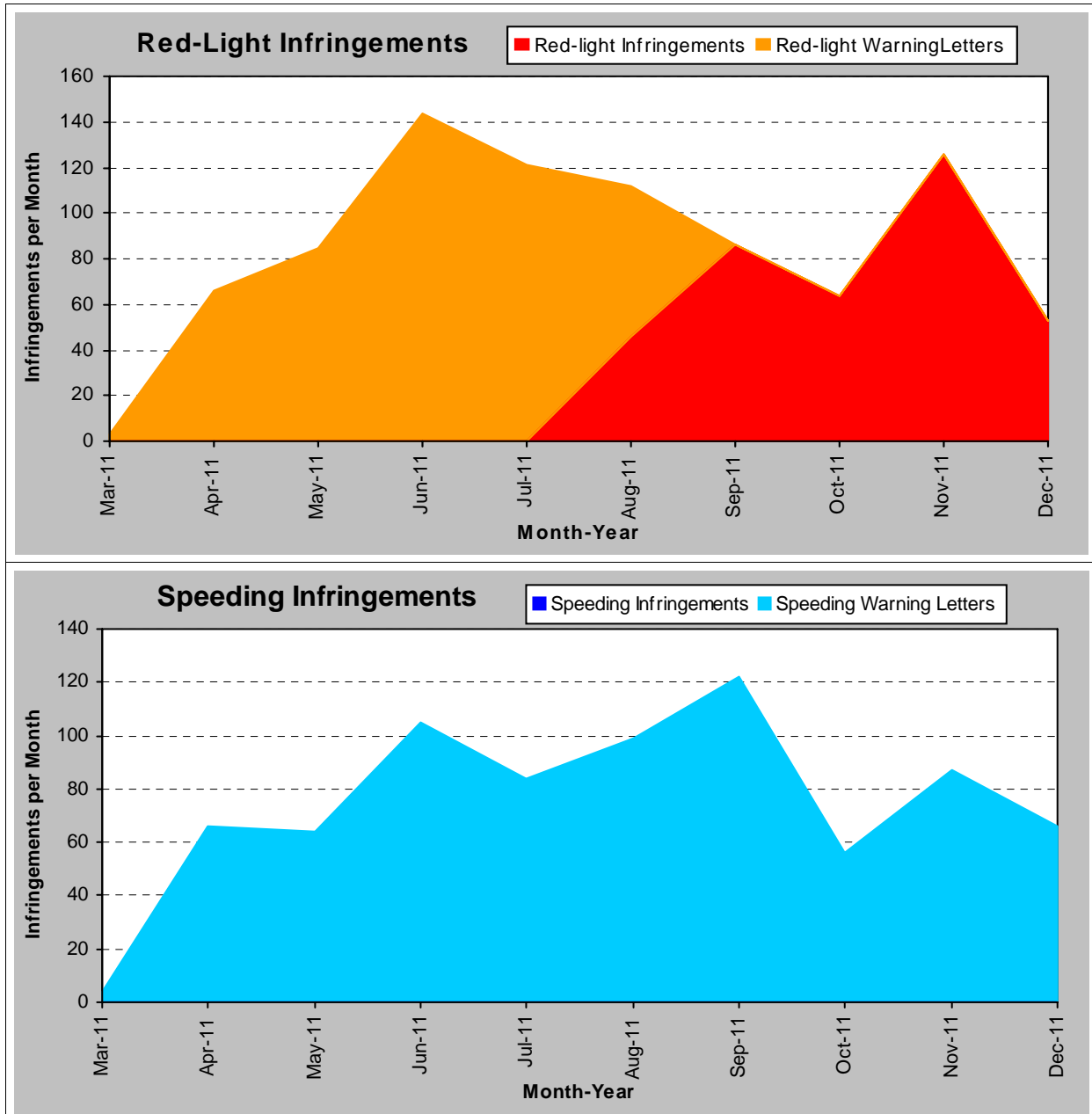
This represents a 65 per cent increase in the yearly average number of crashes and a 79 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

**Red-light speed (safety) camera location: M4 West bound off ramp / Silverwater Rd and M4 West bound on ramp / Silverwater Rd, Auburn**

There are two cameras at the intersection.

Camera 1

The red-light speed (safety) camera at the intersection of Silverwater Rd and M4 West bound on ramp, Auburn commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

Camera 2

The red-light speed (safety) camera at the intersection of M4 West bound off ramp and Silverwater Rd, Auburn commenced issuing warning letters in June 2011. The camera enforces red-light running only.

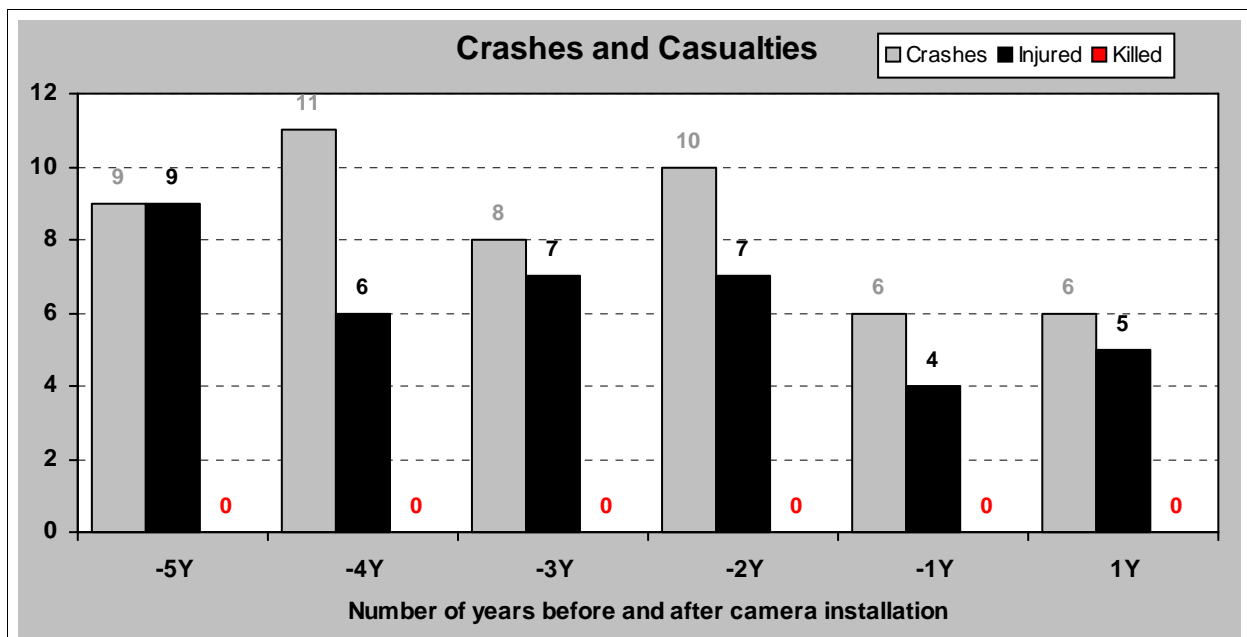
**Crashes at safety camera location**

In the five years prior to the installation of the red-light speed (safety) camera there were 44 crashes resulting in 33 injuries and 0 fatalities.

In the 534 day period from installation to the end of 2011, there were 7 crashes resulting in 7 injuries and 0 fatalities.

This represents a 46 per cent reduction in the yearly average number of crashes and a 27 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 5 crashes resulting in 6 casualties at this intersection in 2011.

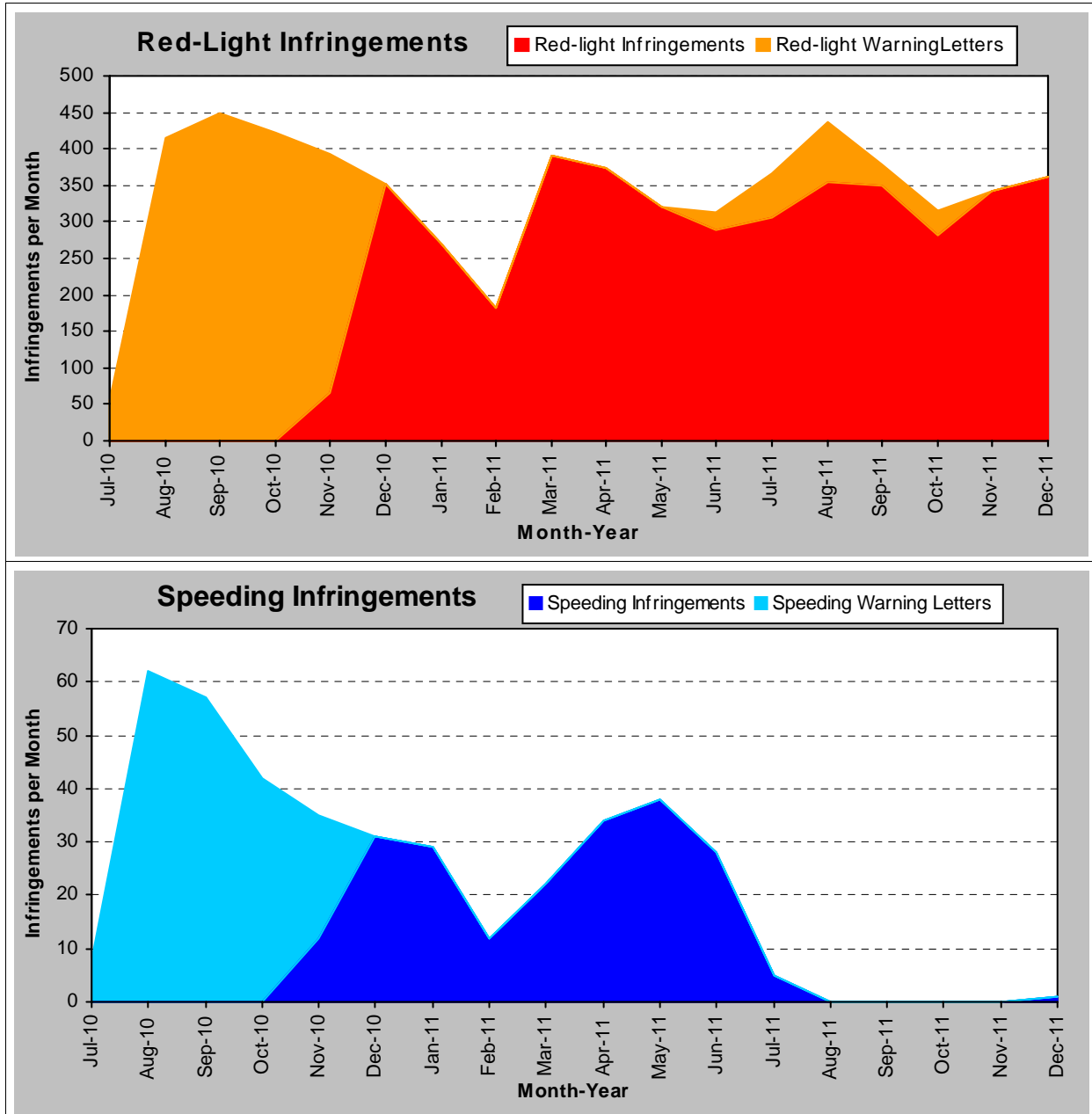




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Meredith St and Hume Hwy, Bankstown (school zone)

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Meredith St and Hume Hwy, Bankstown commenced issuing warning letters in December 2010. The camera enforces red-light running only.

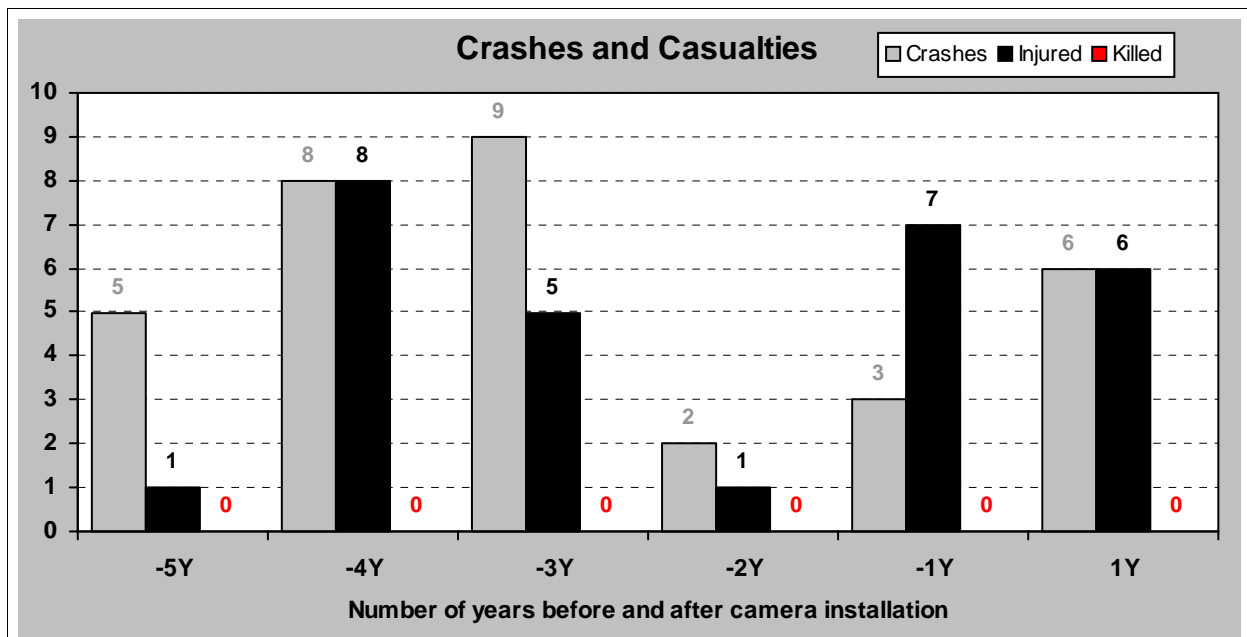
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 27 crashes resulting in 22 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 6 crashes resulting in 6 injuries and 0 fatalities.

This represents a 6 per cent increase in the yearly average number of crashes and a 30 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

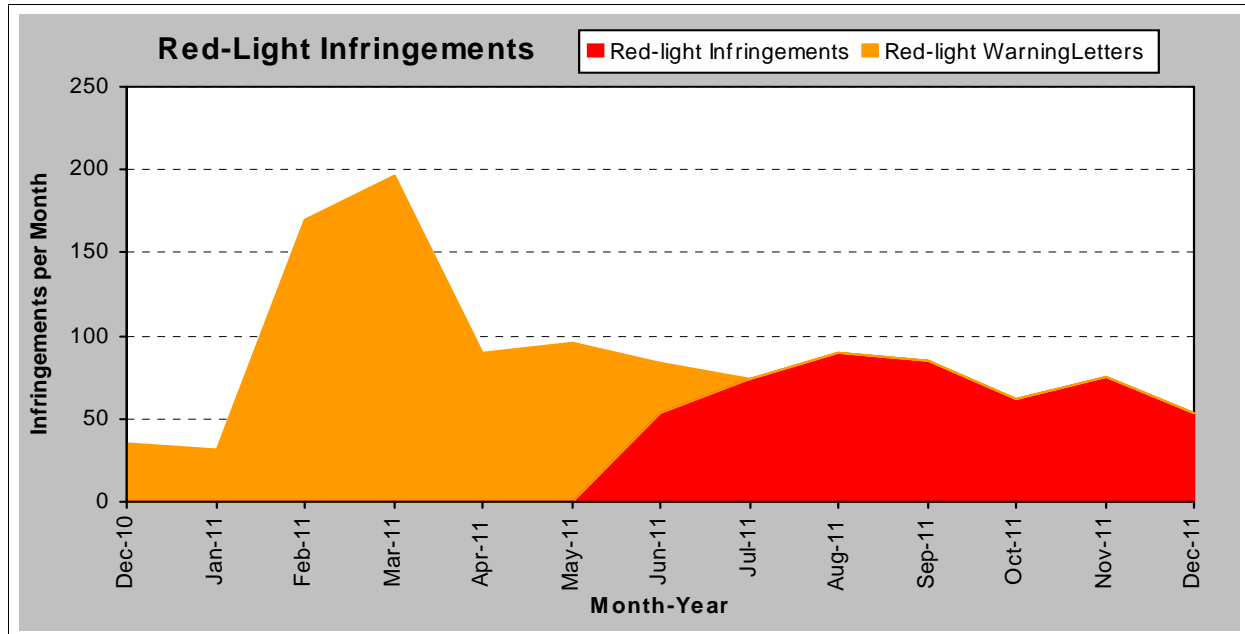
Provisional crash data shows there were 6 crashes resulting in 6 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Windsor Rd and Old Northern Rd / Seven Hills Rd, Baulkham Hills

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Windsor Rd and Seven Hills Rd, Baulkham Hills commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Windsor Rd and Old Northern Rd, Baulkham Hills commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

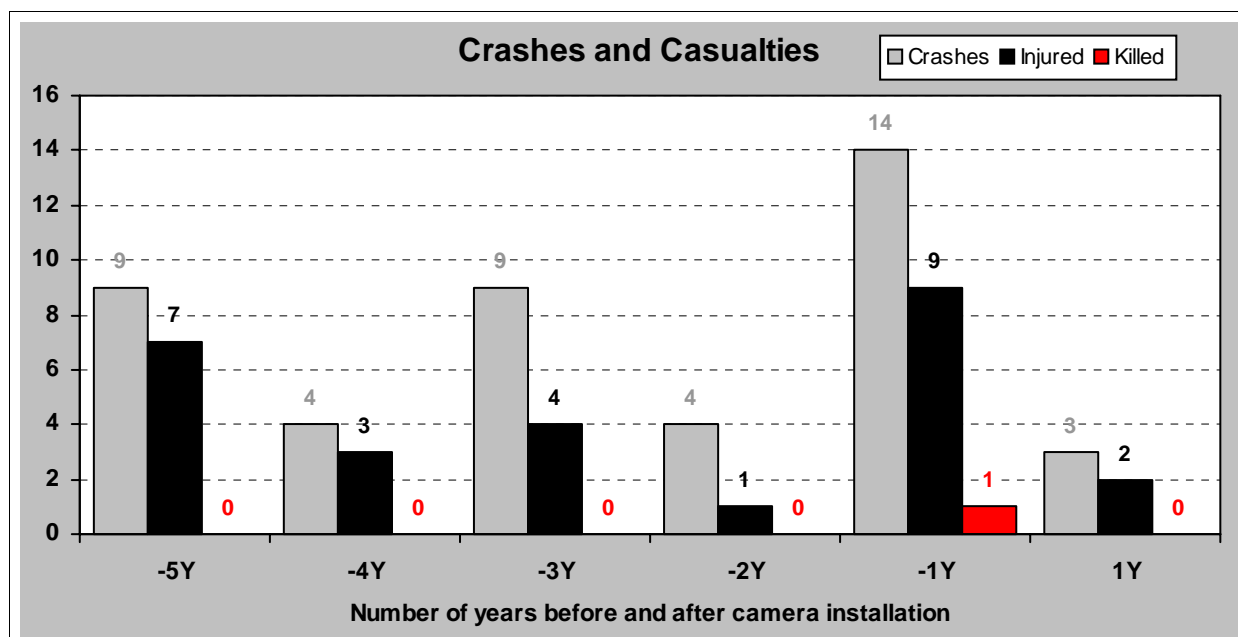
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 40 crashes resulting in 24 injuries and 1 fatality.

In the 486 day period from installation to the end of 2011, there were 3 crashes resulting in 2 injuries and 0 fatalities.

This represents a 72 per cent reduction in the yearly average number of crashes and a 70 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

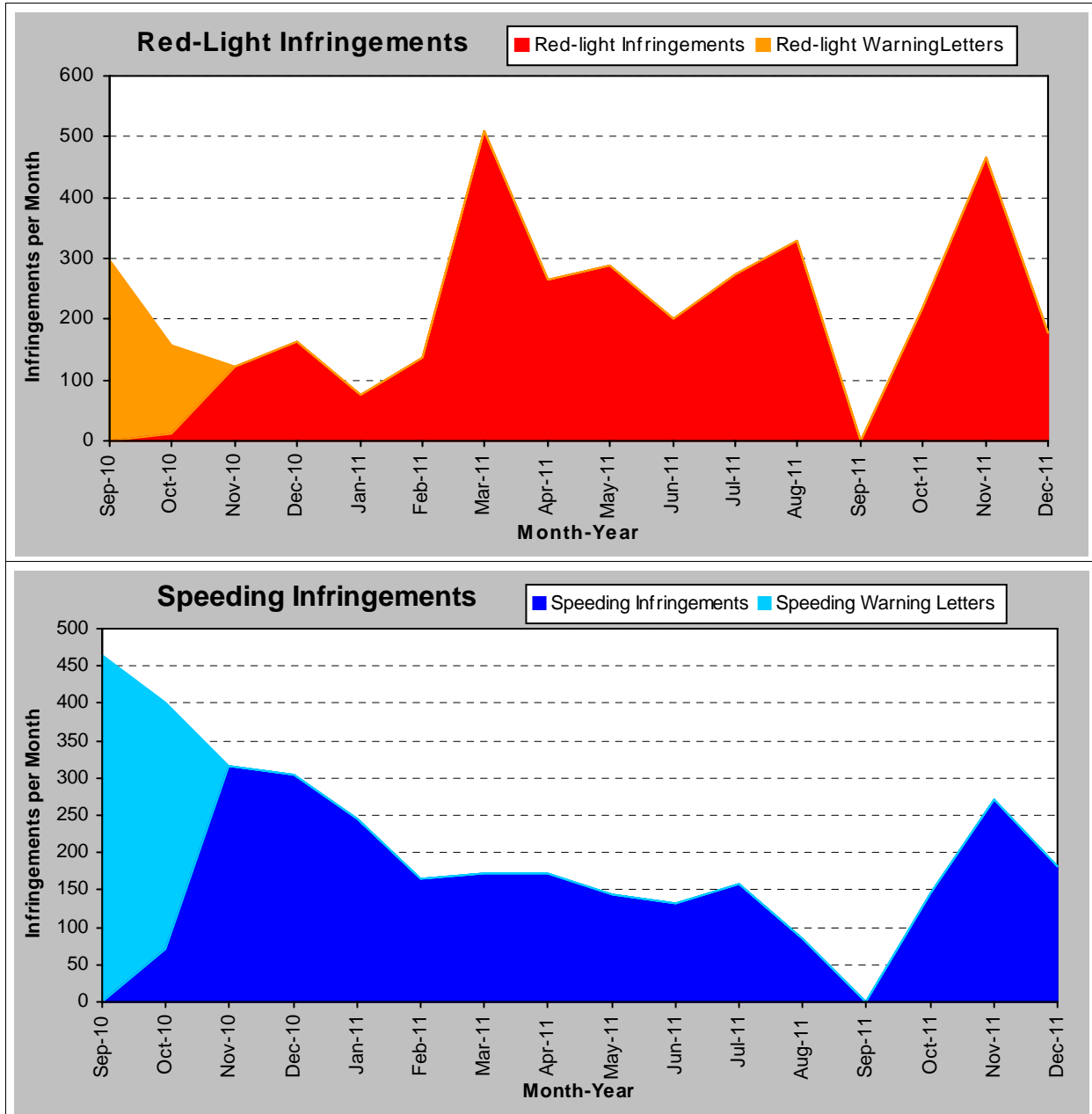
Provisional crash data shows there were 2 crashes resulting in one casualty at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Forest Road and Harrow Road, Bexley

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

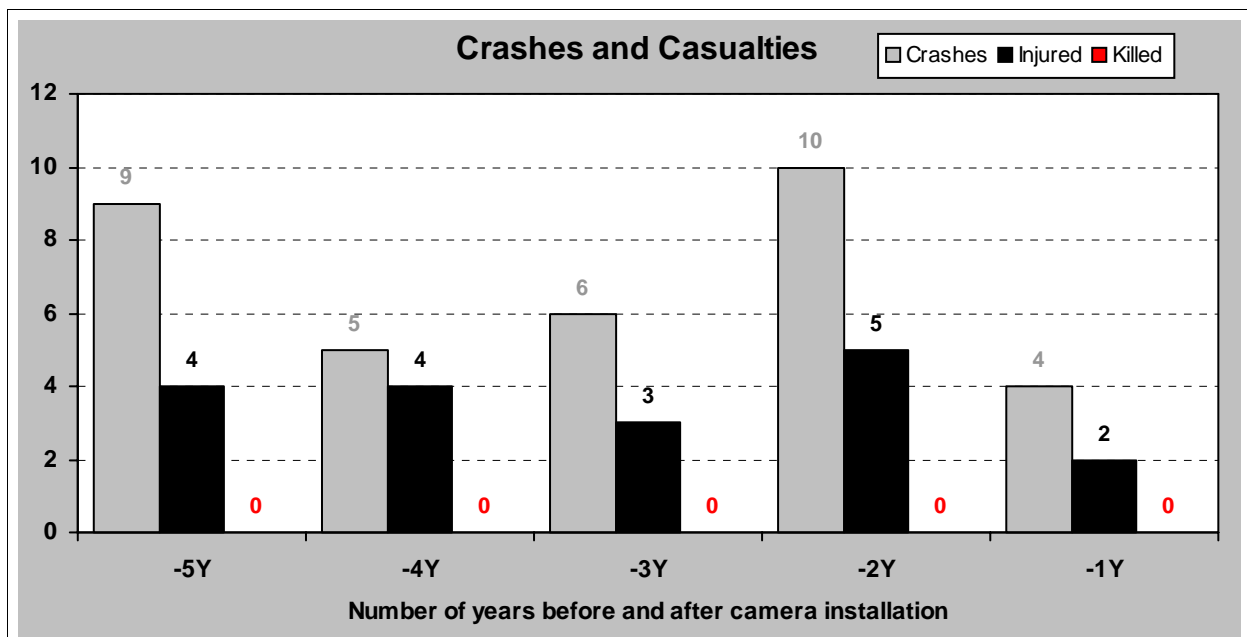
The red-light speed (safety) camera at the intersection of Forest Road and Harrow Road, Bexley commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 34 crashes resulting in 18 injuries and 0 fatalities.

In the 186 day period from installation to the end of 2011, there was 1 crash resulting in 1 injury and 0 fatalities.

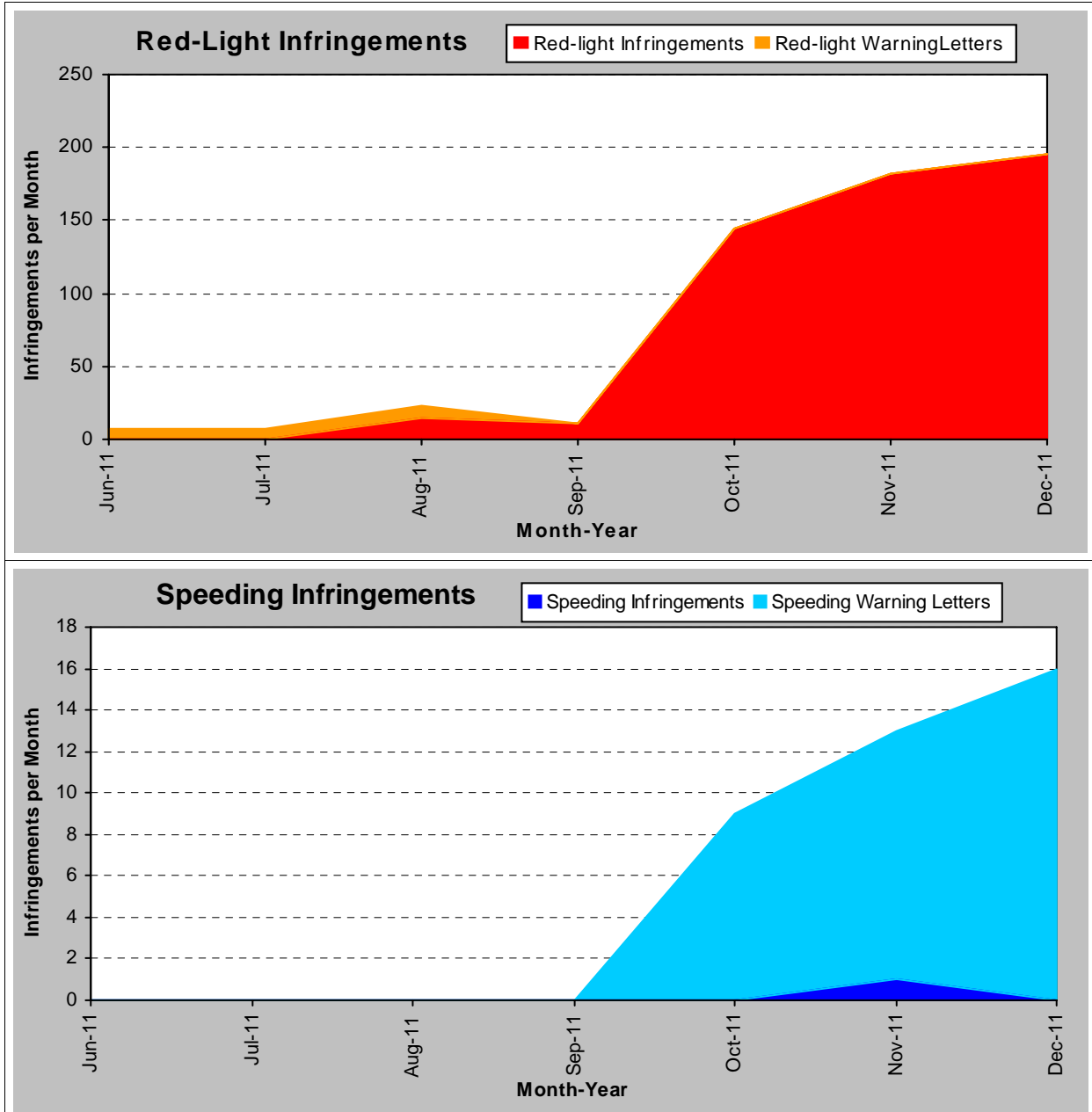
This represents a 71 per cent reduction in the yearly average number of crashes and a 45 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Bungarribee Rd and Reservoir Rd, Blacktown

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Bungarribee Rd and Reservoir Rd, Blacktown commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

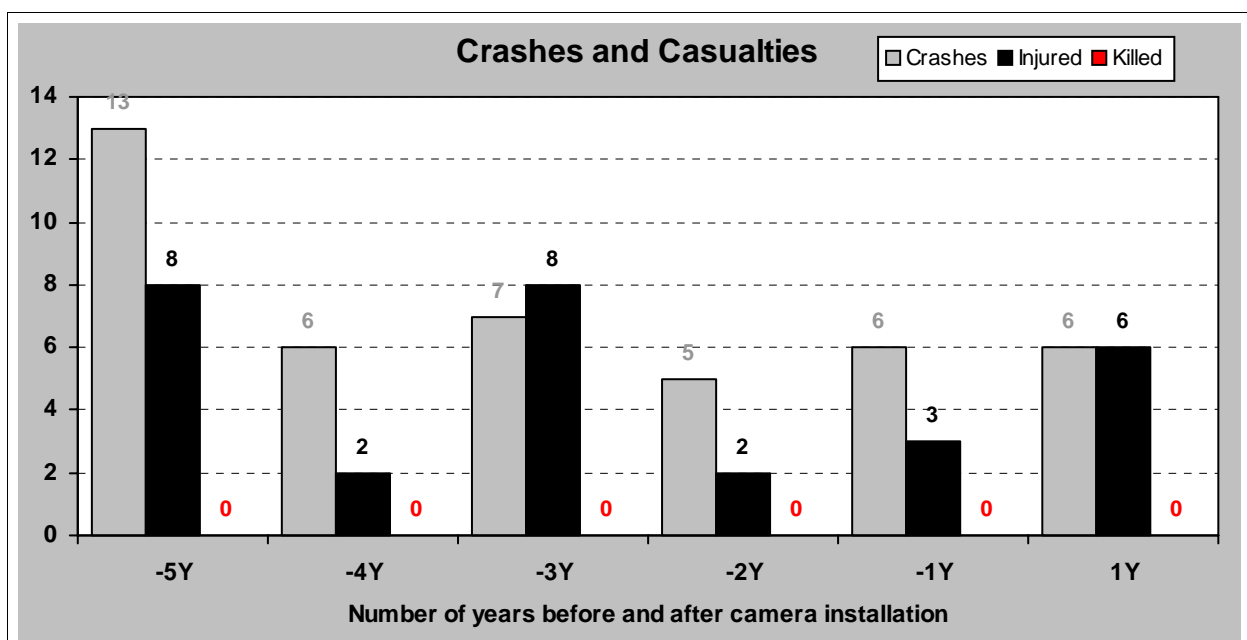
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 37 crashes resulting in 23 injuries and 0 fatalities.

In the 475 day period from installation to the end of 2011, there were 11 crashes resulting in 13 injuries and 0 fatalities.

This represents a 14 per cent increase in the yearly average number of crashes and a 117 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 10 crashes resulting in 13 casualties at this intersection in 2011.

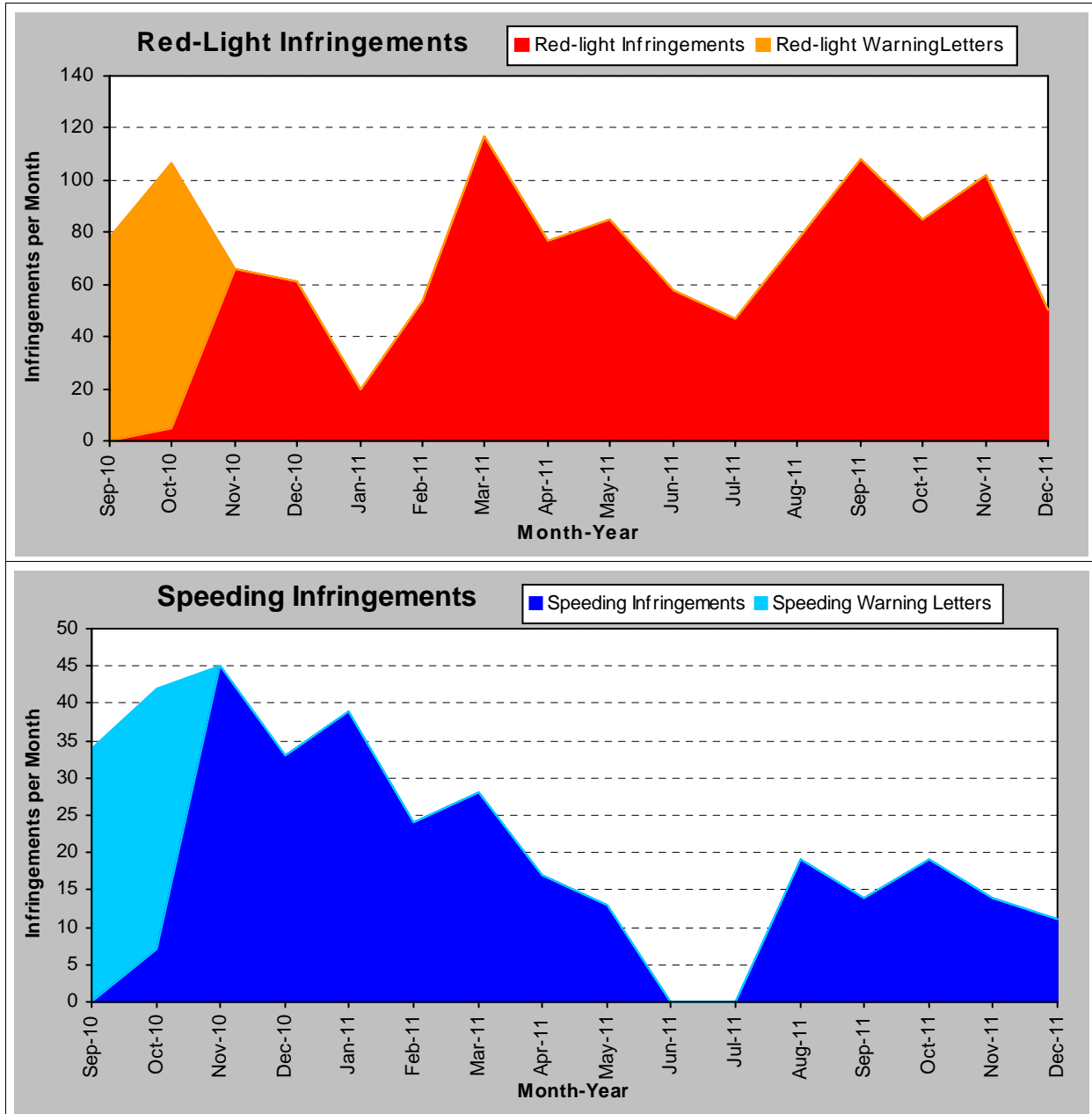




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Great Western Hwy and Reservoir Rd, Blacktown

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Great Western Hwy and Reservoir Rd, Blacktown commenced issuing warning letters in December 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

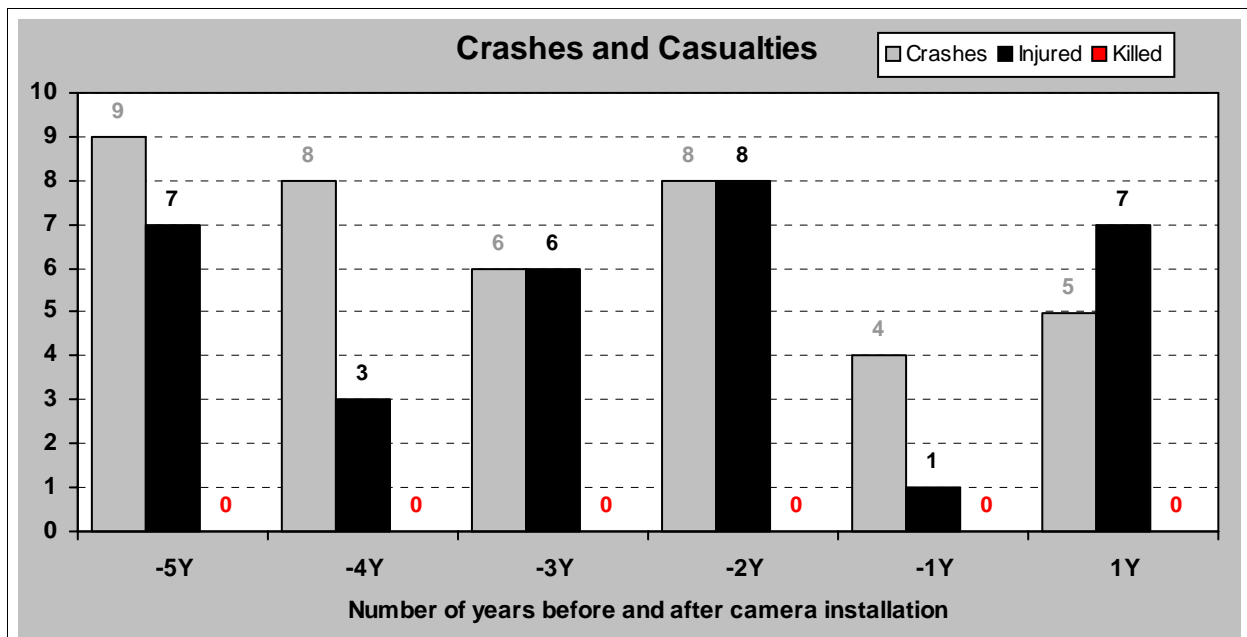
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 35 crashes resulting in 25 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 5 crashes resulting in 7 injuries and 0 fatalities.

This represents a 32 per cent reduction in the yearly average number of crashes and a 34 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

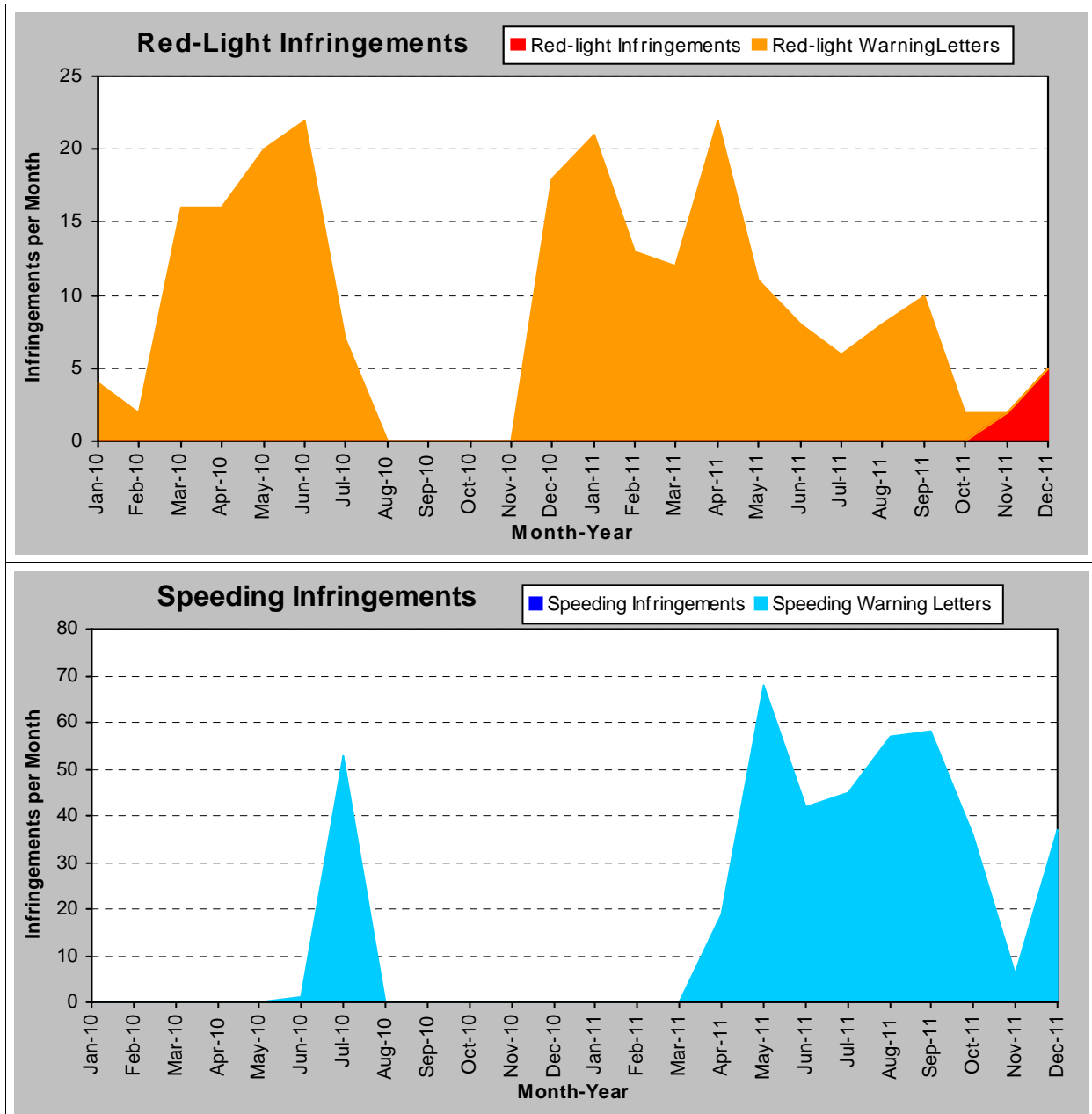
Provisional crash data shows there were 5 crashes resulting in 7 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Lancaster St and Kildare Rd, Blacktown (school zone)

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Lancaster St and Kildare Rd, Blacktown commenced issuing warning letters in November 2010. The camera enforces red-light running only.

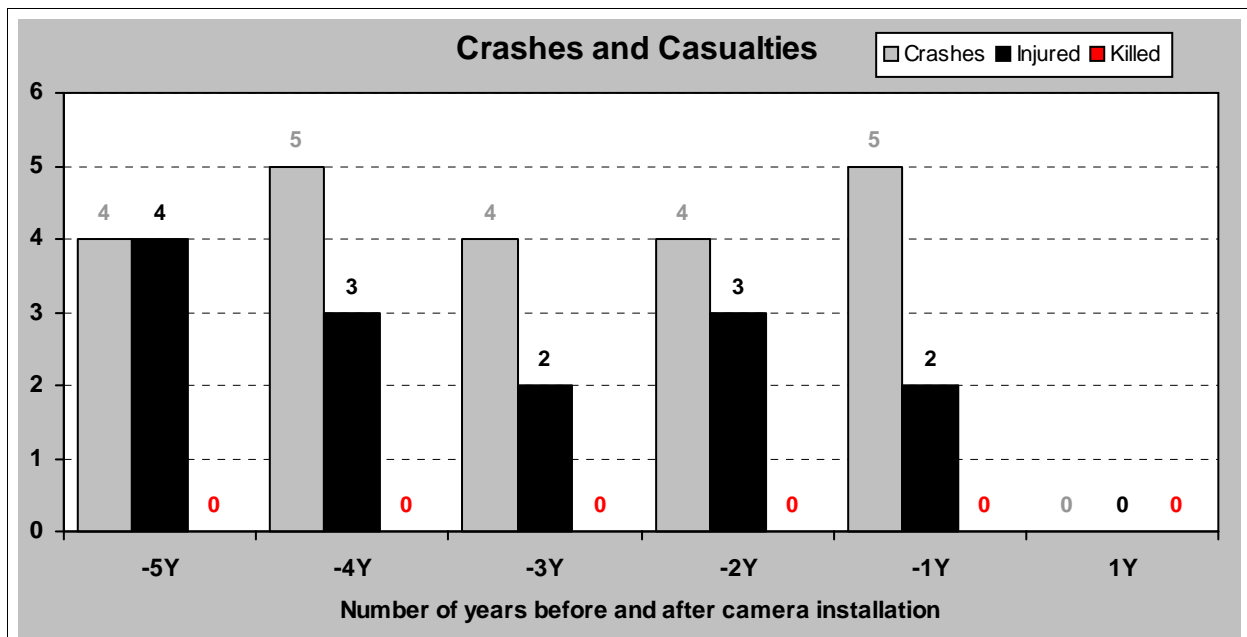
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 22 crashes resulting in 14 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 0 crashes resulting in 0 injuries and 0 fatalities.

This represents a 100 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

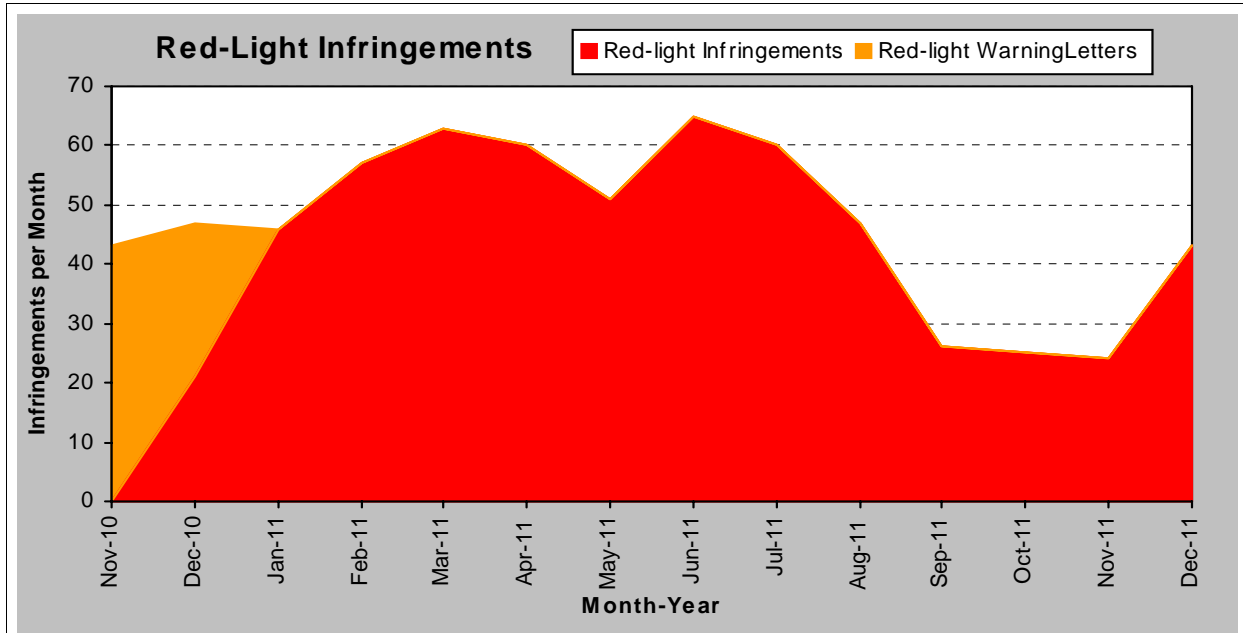
Provisional crash data shows there were crashes resulting in casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

### Red-light speed (safety) camera location: Newton Rd and Flushcombe Rd, Blacktown (school zone)

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

#### Camera 1

The red-light speed (safety) camera at the intersection of Newton Rd and Flushcombe Rd, Blacktown commenced issuing warning letters in October 2010. The camera enforces red-light running only.

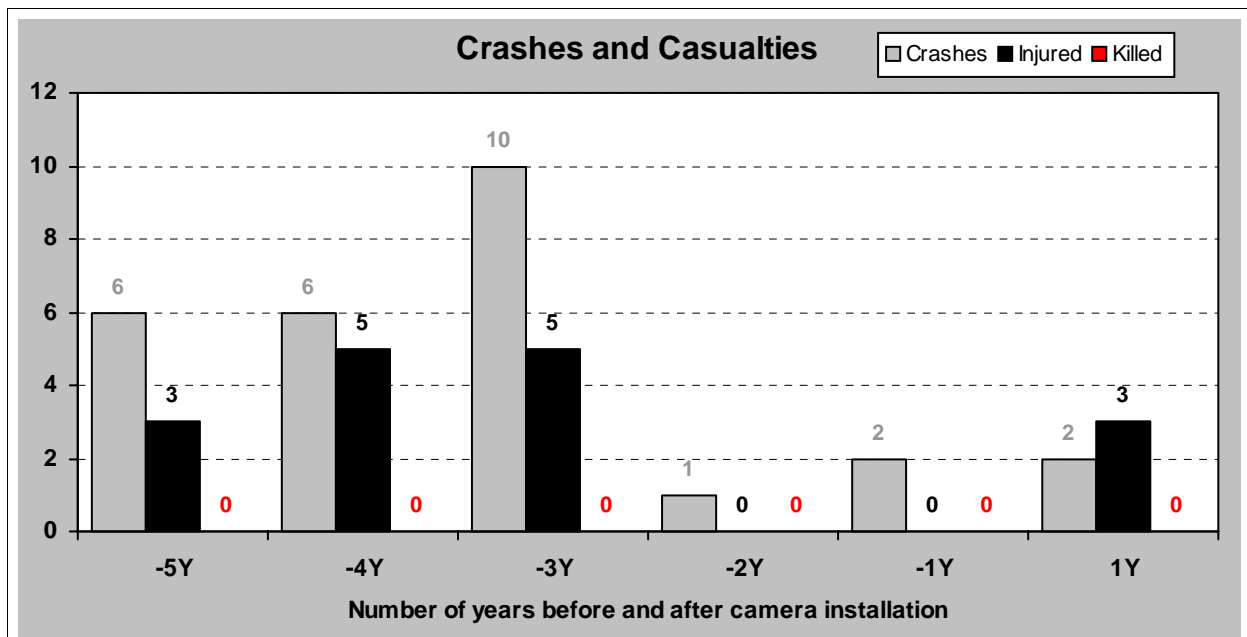
#### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 25 crashes resulting in 13 injuries and 0 fatalities.

In the 451 day period from installation to the end of 2011, there were 2 crashes resulting in 3 injuries and 0 fatalities.

This represents a 68 per cent reduction in the yearly average number of crashes and a 7 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

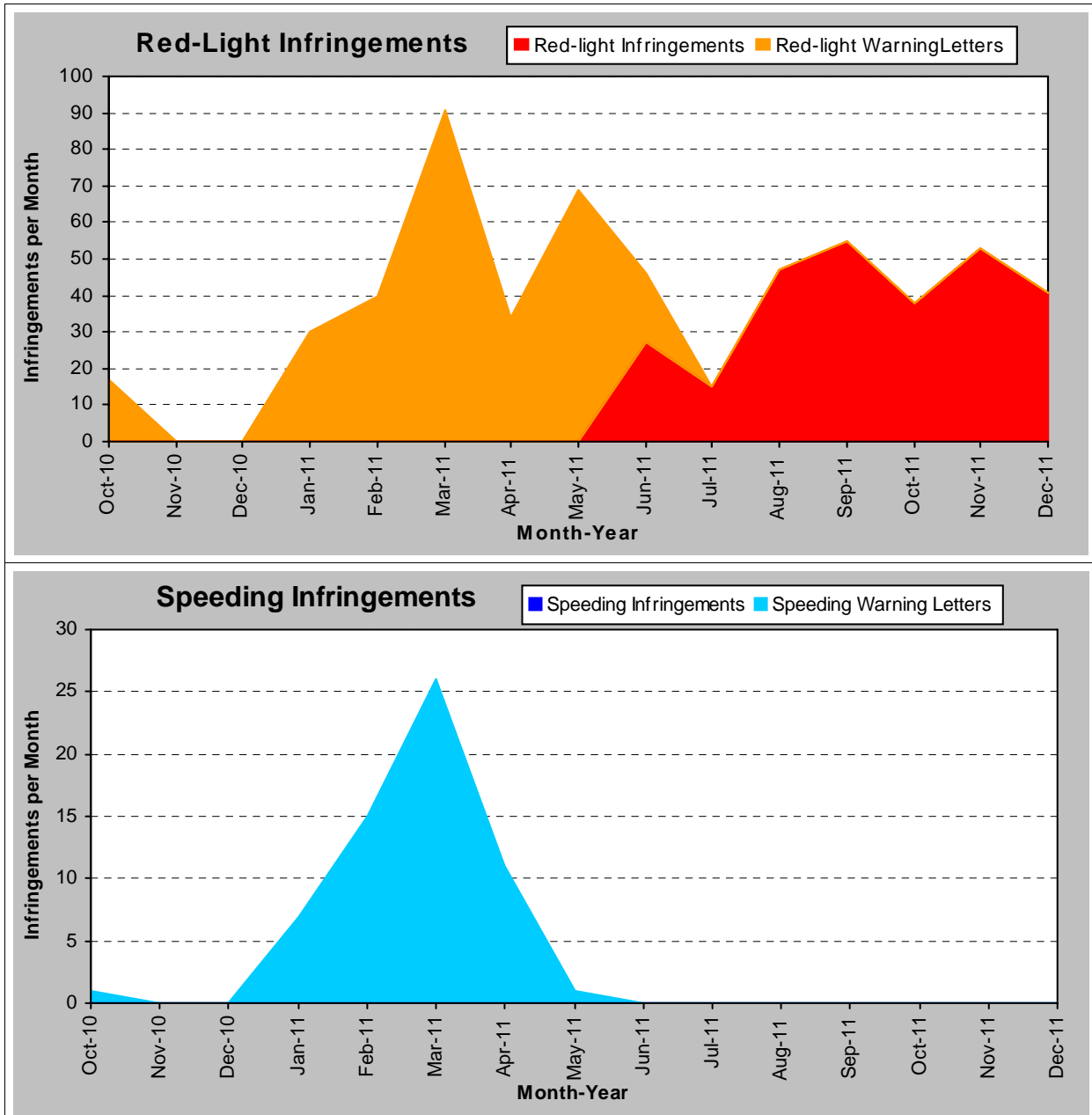
Provisional crash data shows there were 2 crashes resulting in 3 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Sunnyholt Rd and Main St, Blacktown

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Sunnyholt Rd and Main St, Blacktown commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

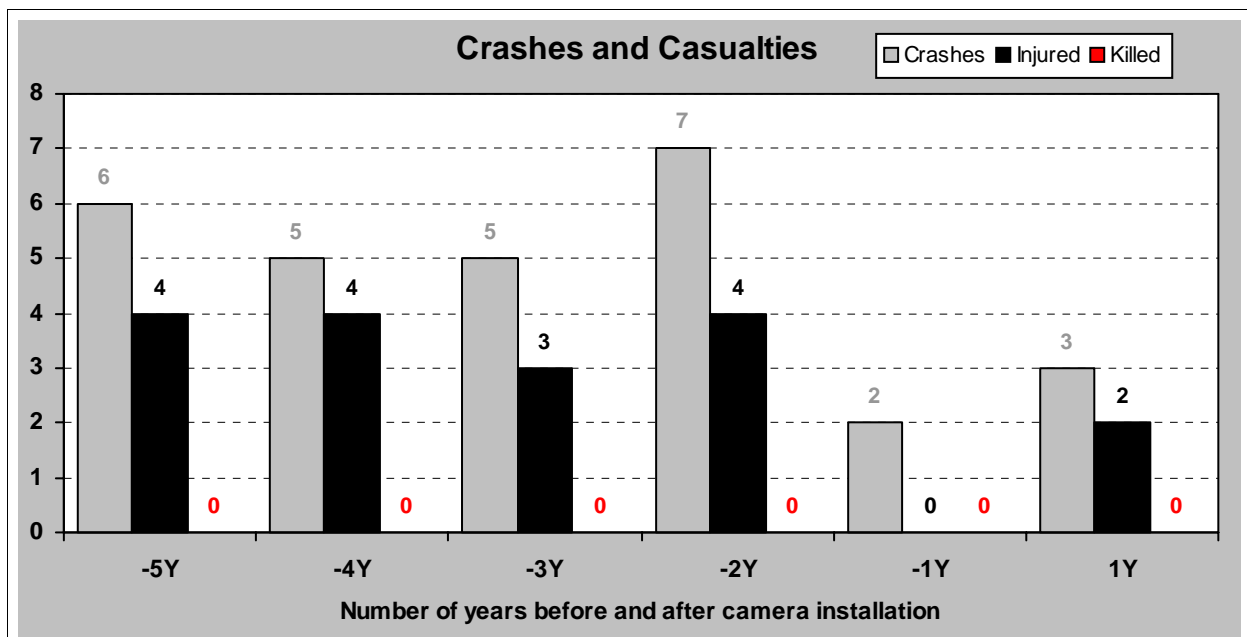
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 25 crashes resulting in 15 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 3 crashes resulting in 2 injuries and 0 fatalities.

This represents a 47 per cent reduction in the yearly average number of crashes and a 41 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 3 crashes resulting in 2 casualties at this intersection in 2011.

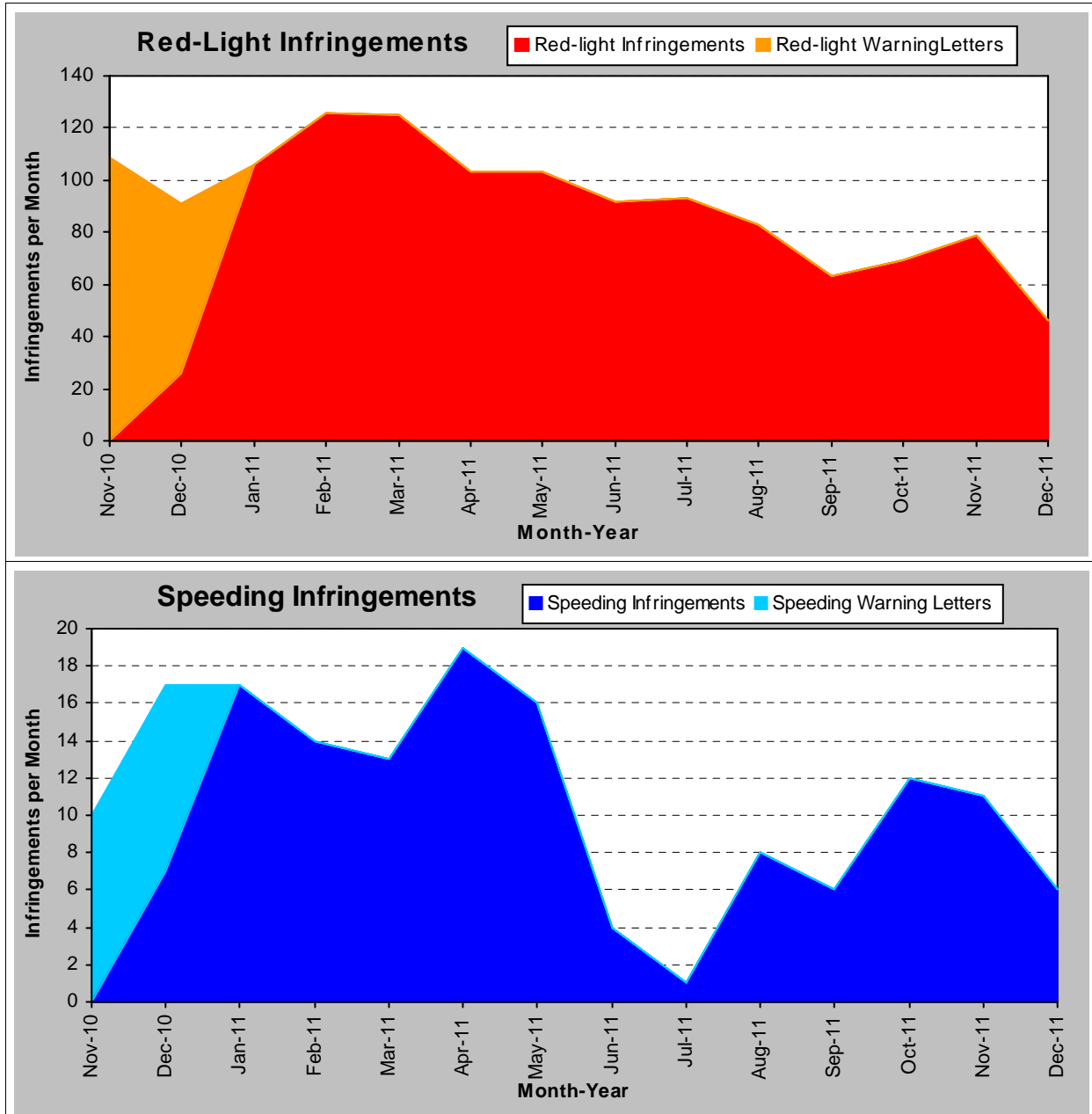




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Old South Head Road and Bondi Road, Bondi Junction

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

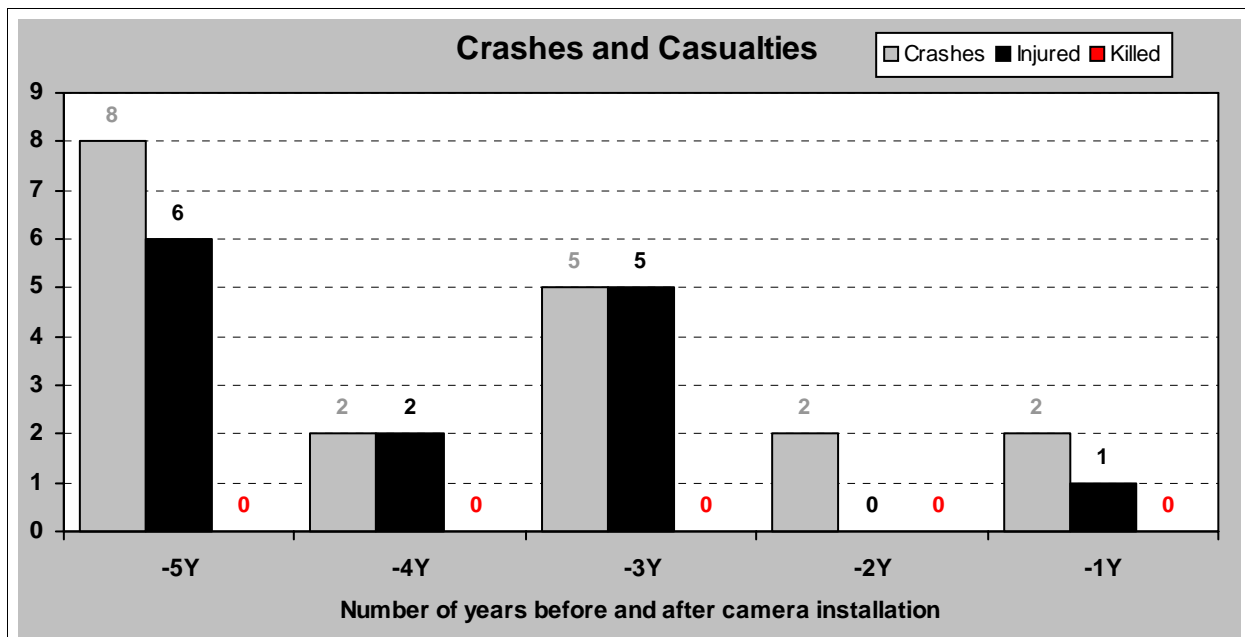
The red-light speed (safety) camera at the intersection of Old South Head Road and Bondi Road, Bondi Junction commenced issuing warning letters in June 2011. The camera enforces red-light running only.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 19 crashes resulting in 14 injuries and 0 fatalities.

In the 188 day period from installation to the end of 2011, there were 4 crashes resulting in 4 injuries and 0 fatalities.

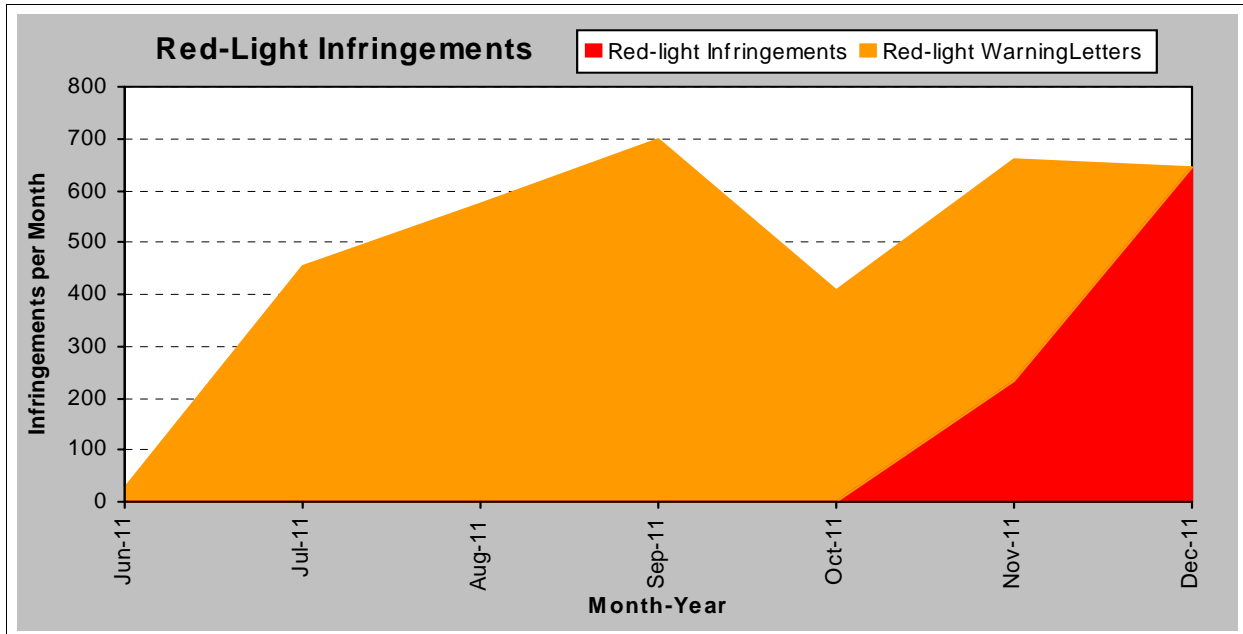
This represents a 104 per cent increase in the yearly average number of crashes and a 178 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Parramatta Rd and Burwood Rd, Burwood / Concord

There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Parramatta Rd and Burwood Rd, Concord commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Parramatta Rd and Burwood Rd, Burwood commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

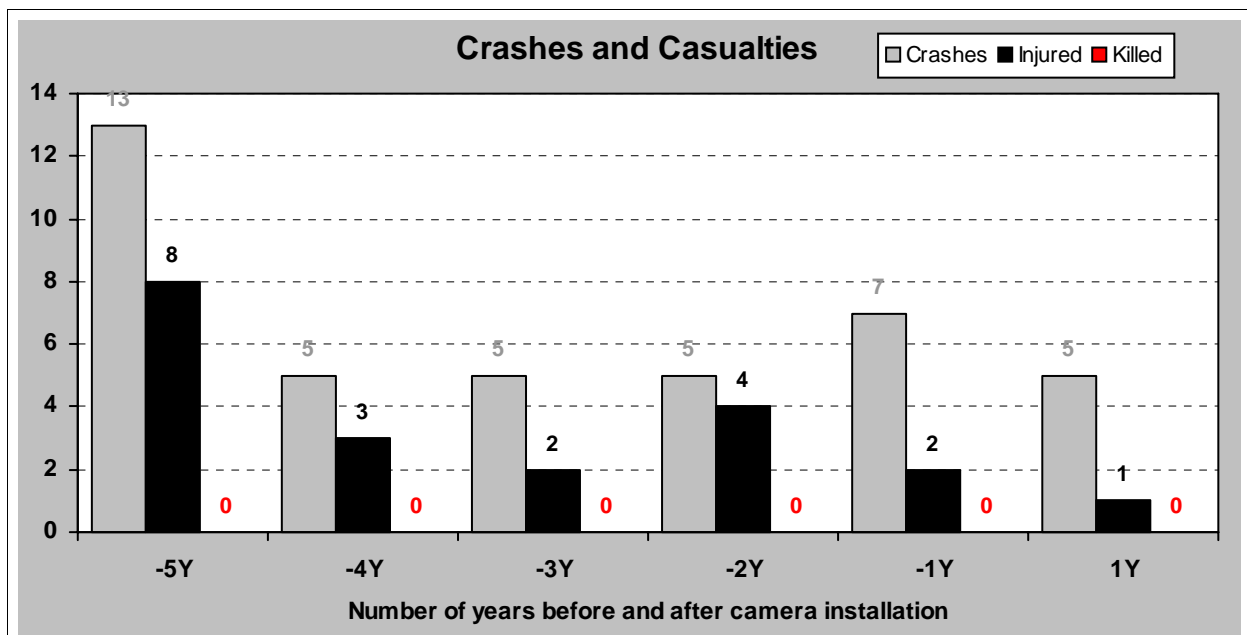
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 35 crashes resulting in 19 injuries and 0 fatalities.

In the 482 day period from installation to the end of 2011, there were 5 crashes resulting in 1 injury and 0 fatalities.

This represents a 46 per cent reduction in the yearly average number of crashes and an 80 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

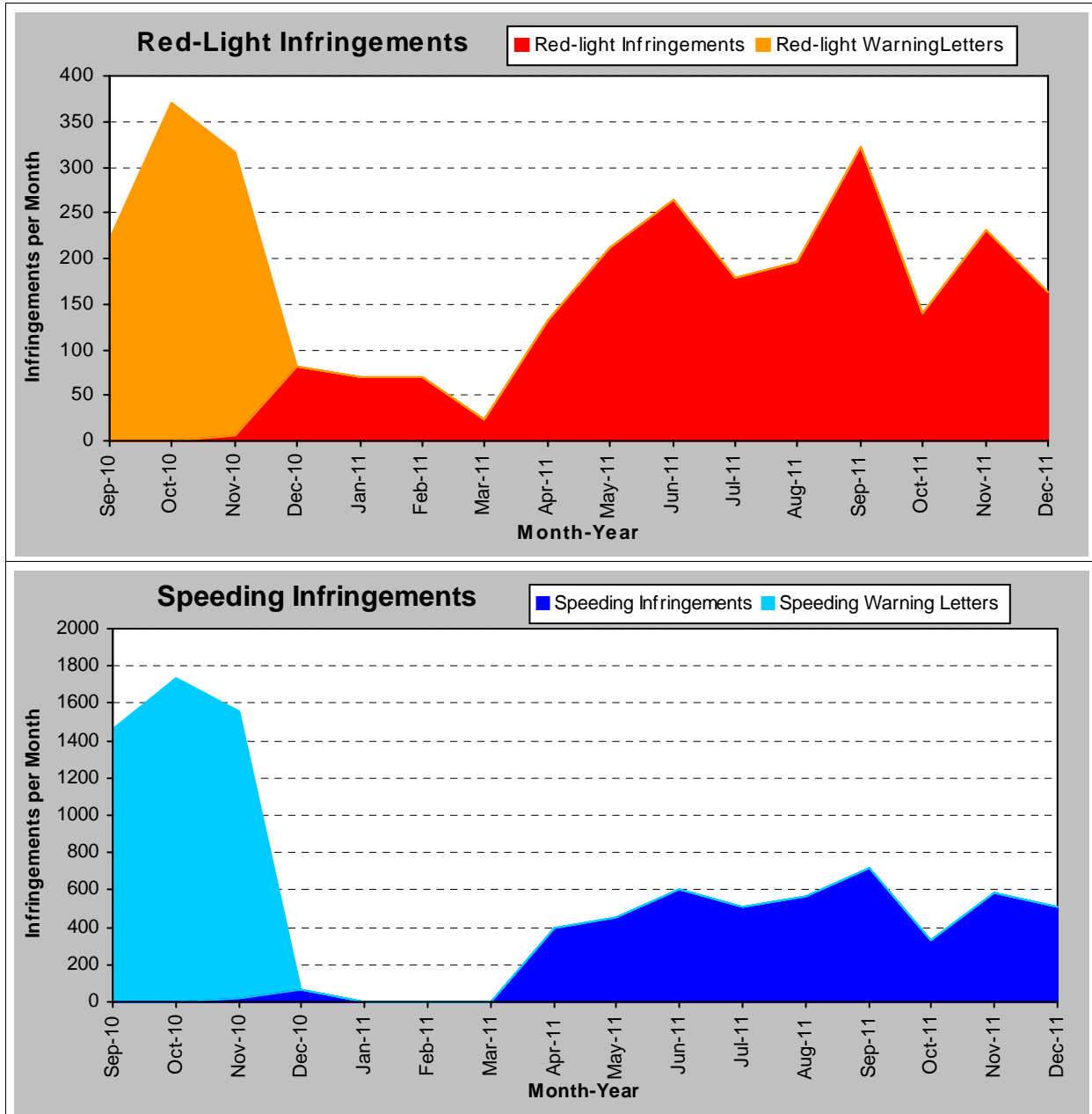
Provisional crash data shows there were 5 crashes resulting in one casualty at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Cumberland Hwy and Cabramatta Rd West, Cabramatta West

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Cumberland Hwy and Cabramatta Rd West, Cabramatta West commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Cumberland Hwy and Cabramatta Rd West, Cabramatta West commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

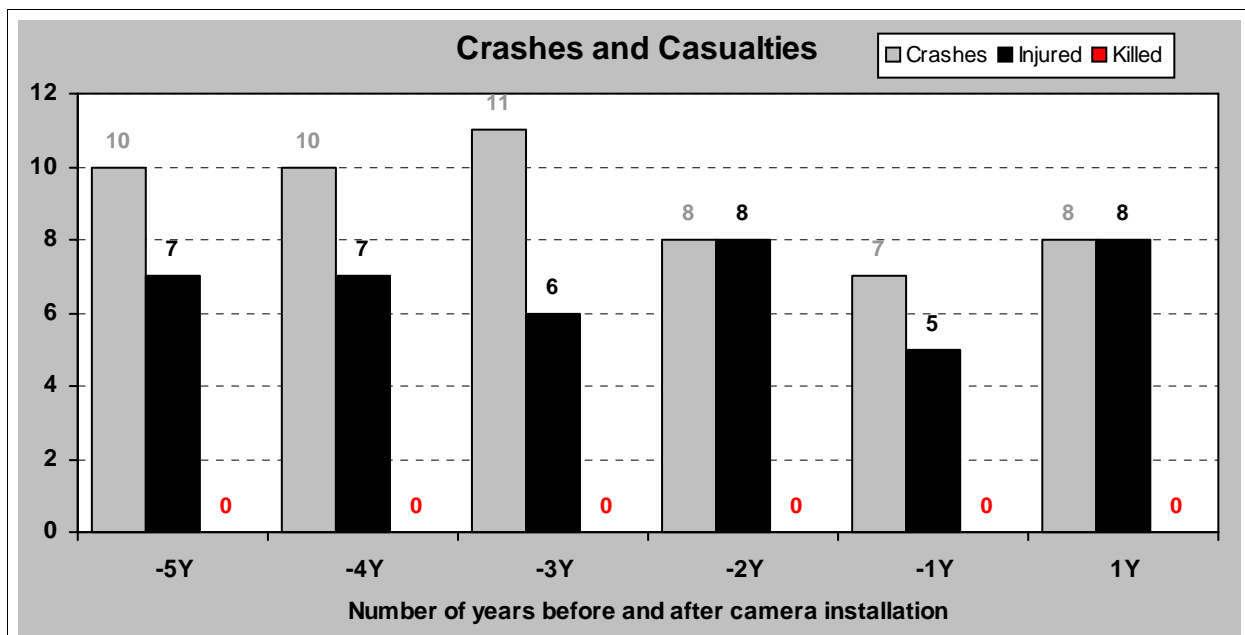
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 46 crashes resulting in 33 injuries and 0 fatalities.

In the 556 day period from installation to the end of 2011, there were 12 crashes resulting in 11 injuries and 0 fatalities.

This represents a 14 per cent reduction in the yearly average number of crashes and a 9 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

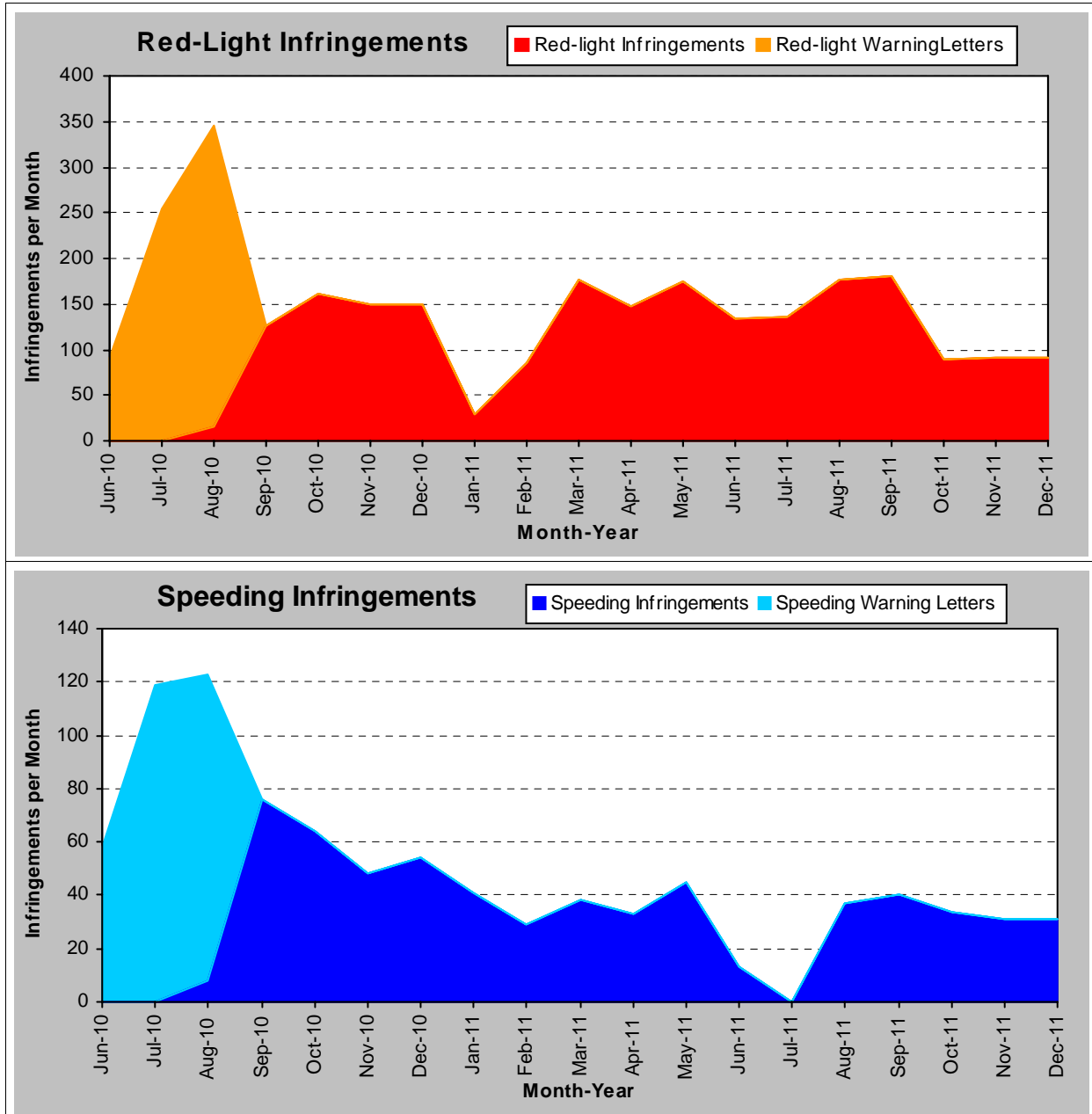
Provisional crash data shows there were 8 crashes resulting in 7 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Kellicar Rd and Narellan Rd, Campbelltown

There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Kellicar Rd and Narellan Rd, Campbelltown commenced issuing warning letters in May 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Camera 2

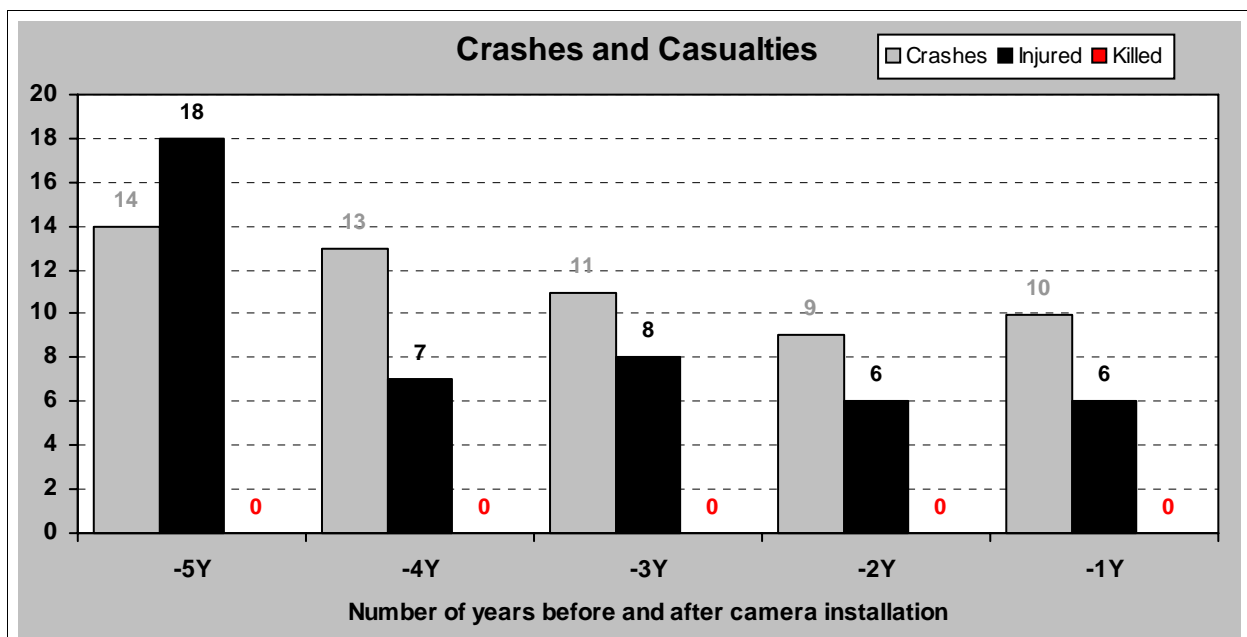
The red-light speed (safety) camera at the intersection of Kellicar Rd and Narellan Rd, Campbelltown commenced issuing warning letters in May 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 57 crashes resulting in 45 injuries and 0 fatalities.

In the 237 day period from installation to the end of 2011, there were 3 crashes resulting in 1 injury and 0 fatalities.

This represents a 59 per cent reduction in the yearly average number of crashes and an 83 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

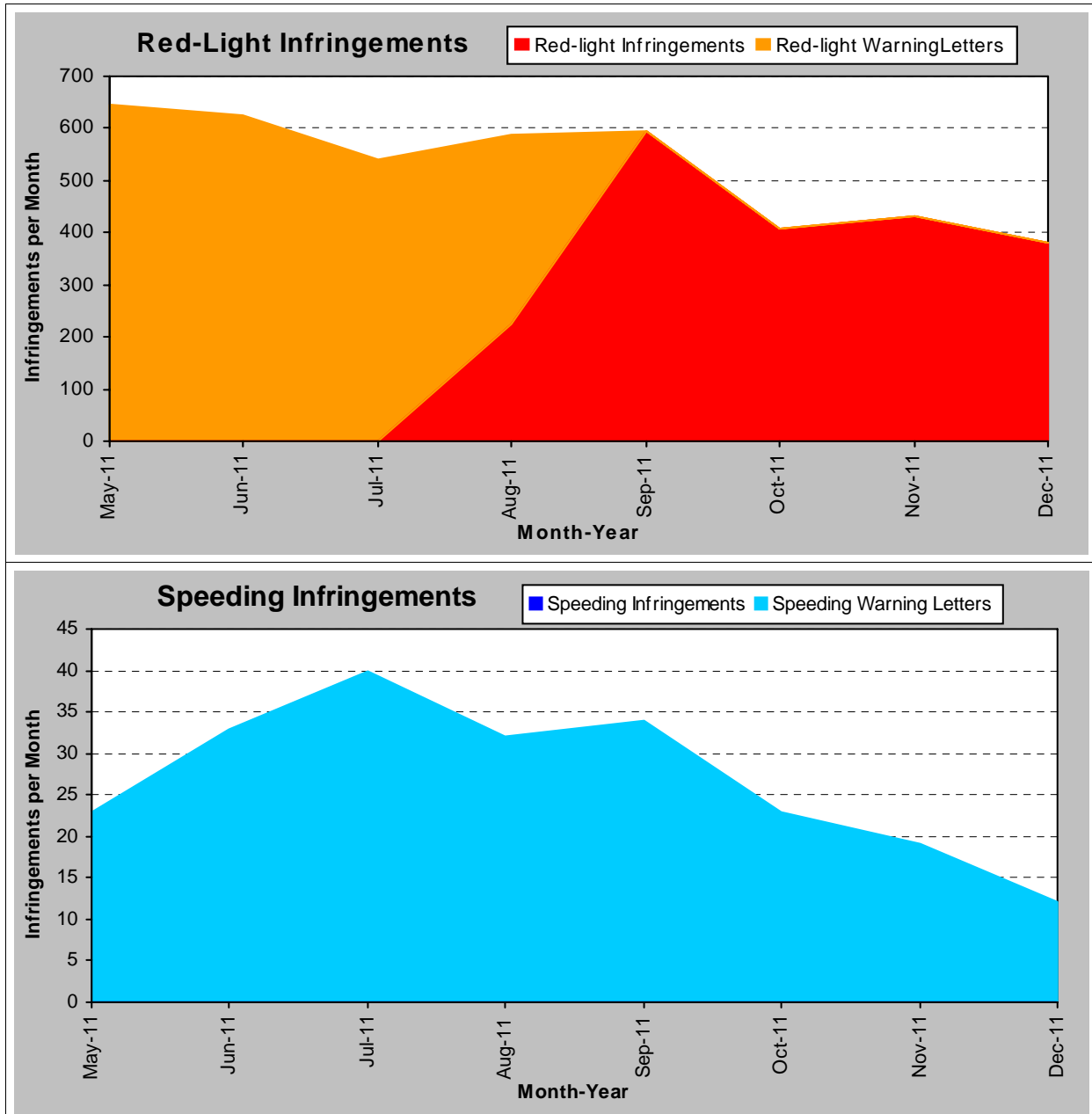




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Moore-Oxley Bypass and Broughton St, Campbelltown

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Moore-Oxley Bypass and Broughton St, Campbelltown commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Moore-Oxley Bypass and Broughton St, Campbelltown commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

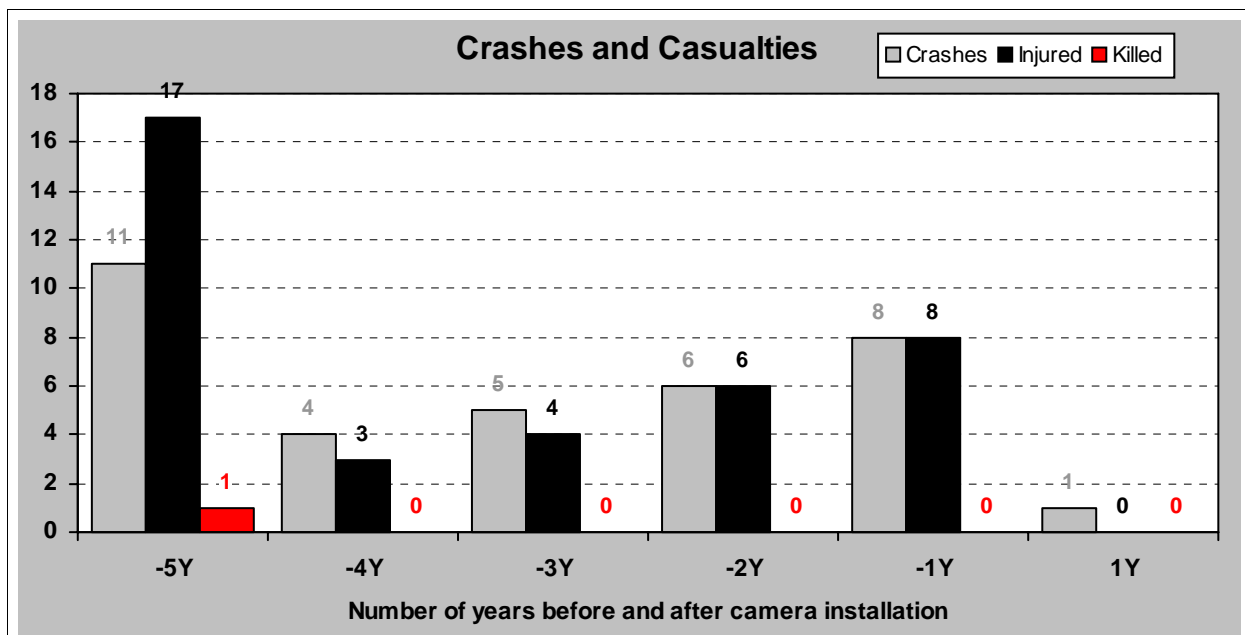
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 34 crashes resulting in 38 injuries and 1 fatality.

In the 556 day period from installation to the end of 2011, there were 4 crashes resulting in 2 injuries and 0 fatalities.

This represents a 61 per cent reduction in the yearly average number of crashes and an 83 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

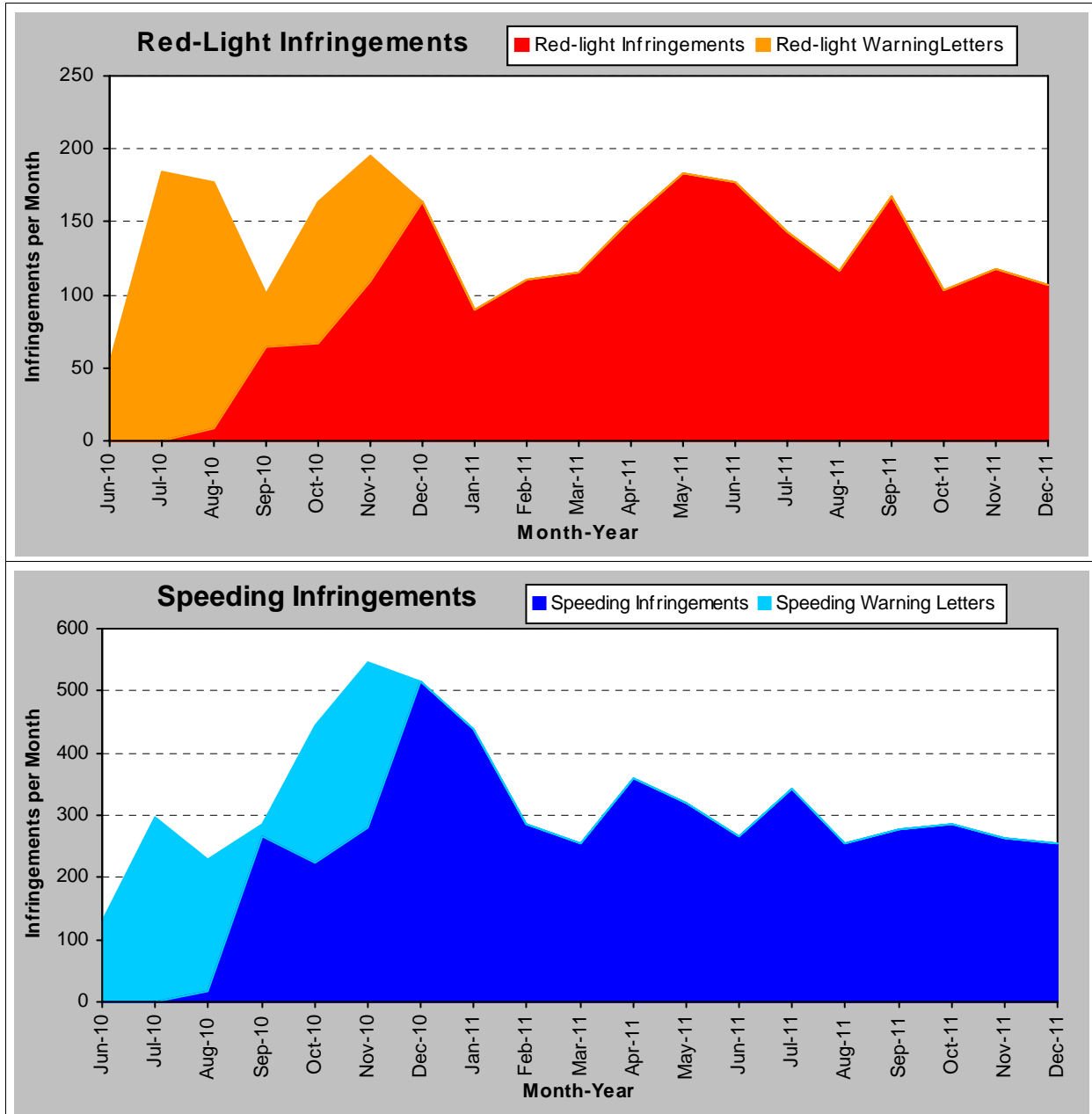
Provisional crash data shows there were 4 crashes resulting in 2 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Canterbury Rd and Bexley Rd, Campsie

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Canterbury Rd and Bexley Rd, Campsie commenced issuing warning letters in October 2010. The camera enforces red-light running and speeding offences.

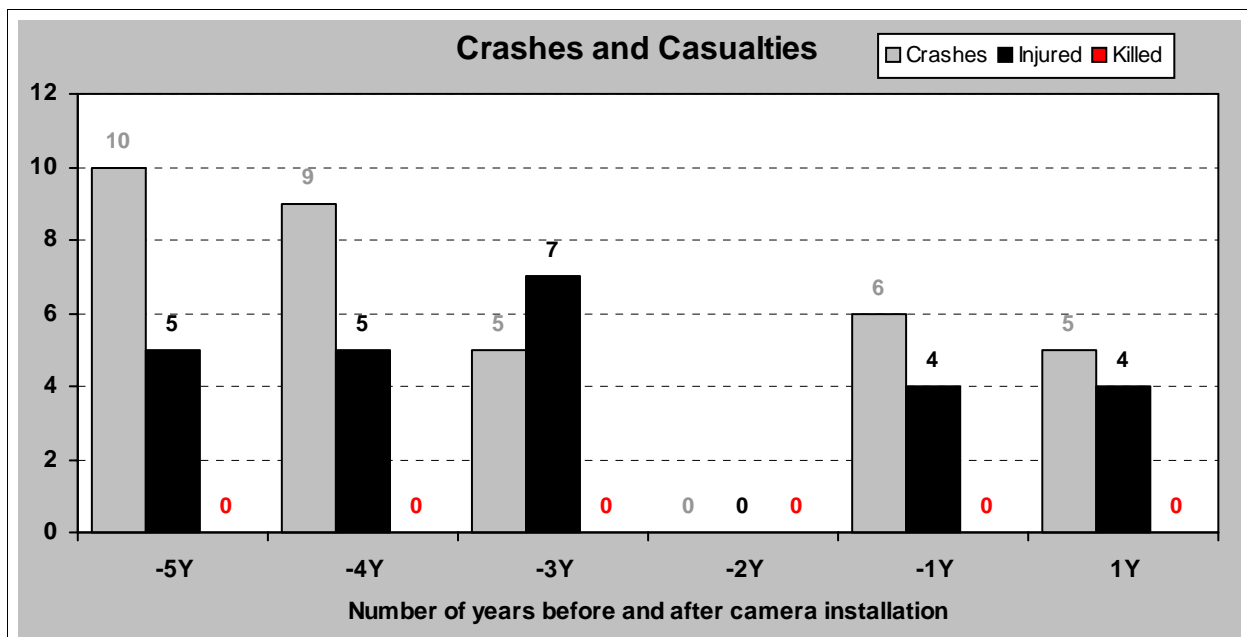
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 30 crashes resulting in 21 injuries and 0 fatalities.

In the 443 day period from installation to the end of 2011, there were 5 crashes resulting in 4 injuries and 0 fatalities.

This represents a 31 per cent reduction in the yearly average number of crashes and a 21 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

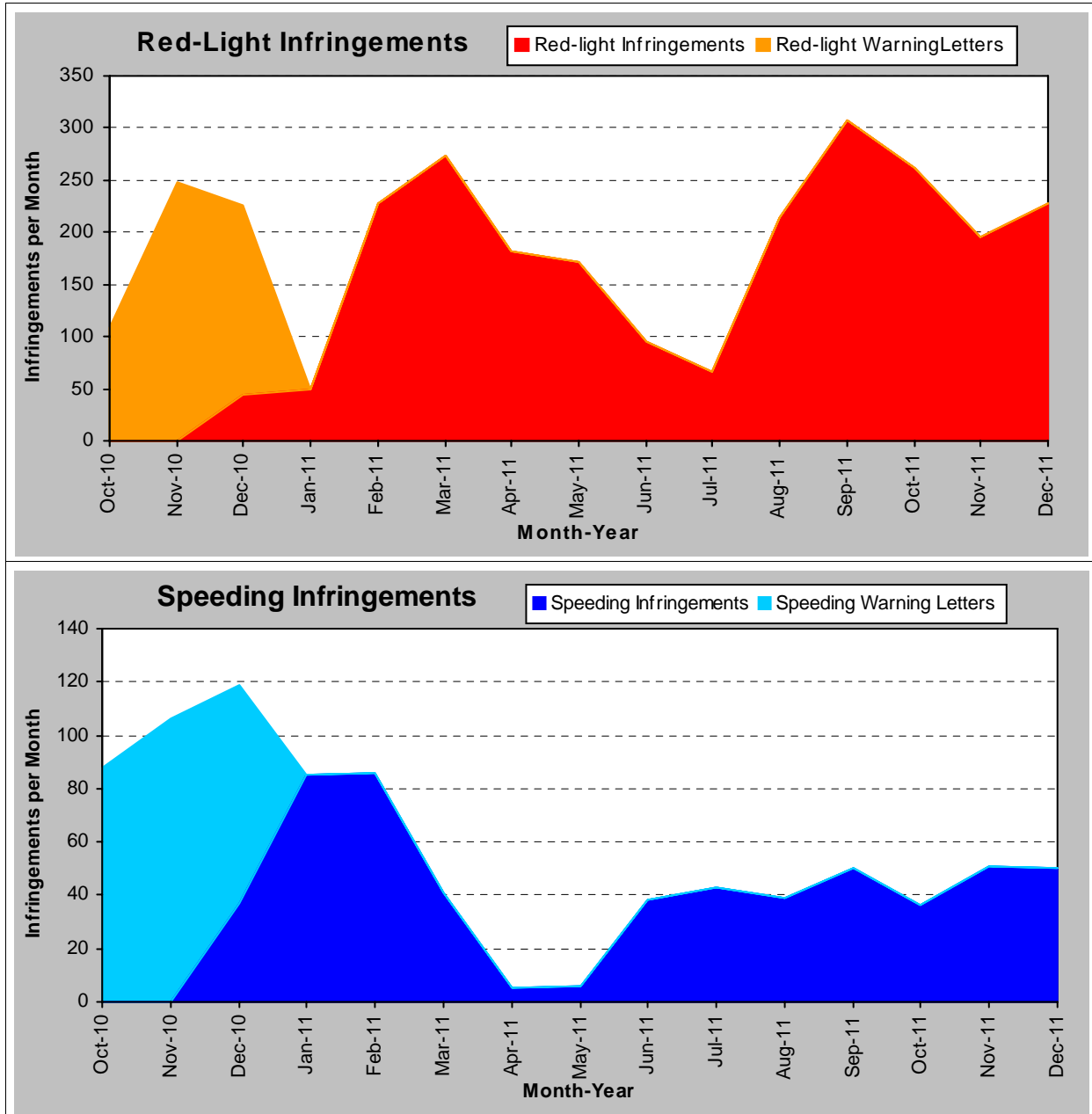
Provisional crash data shows there were 5 crashes resulting in 4 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Cumberland Hwy and St Johns Rd, Canley Heights

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Cumberland Hwy and St Johns Rd, Canley Heights commenced issuing warning letters in December 2009. The camera enforces red-light running and speeding offences.

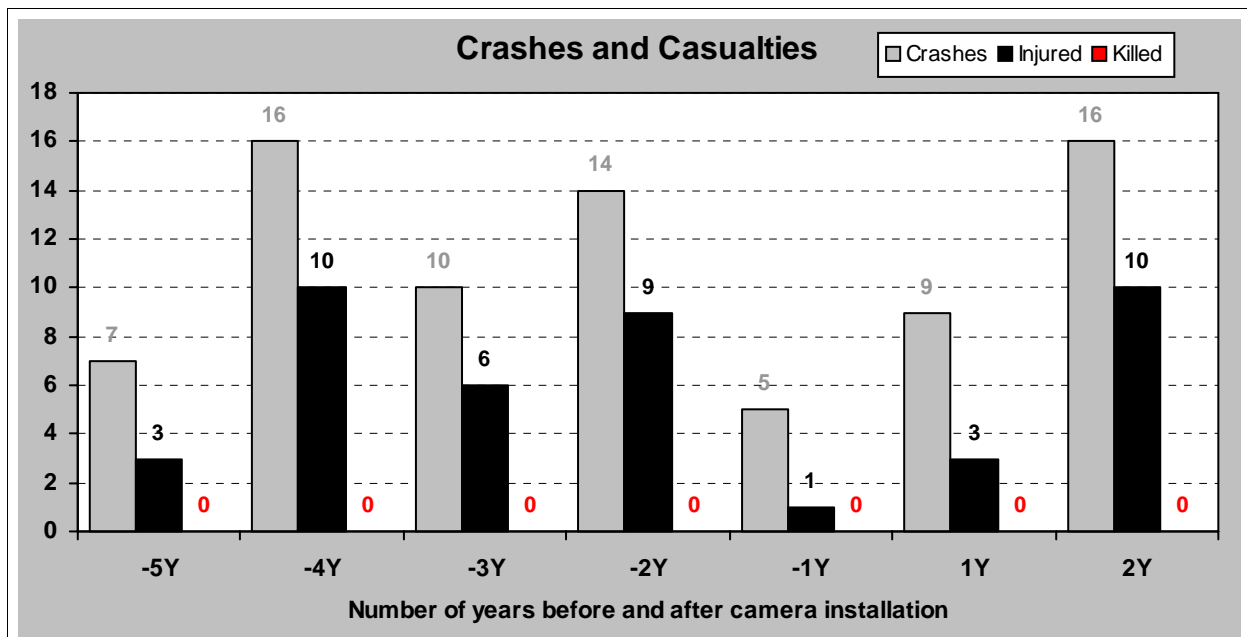
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 52 crashes resulting in 29 injuries and 0 fatalities.

In the 744 day period from installation to the end of 2011, there were 25 crashes resulting in 13 injuries and 0 fatalities.

This represents an 18 per cent increase in the yearly average number of crashes and a 10 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

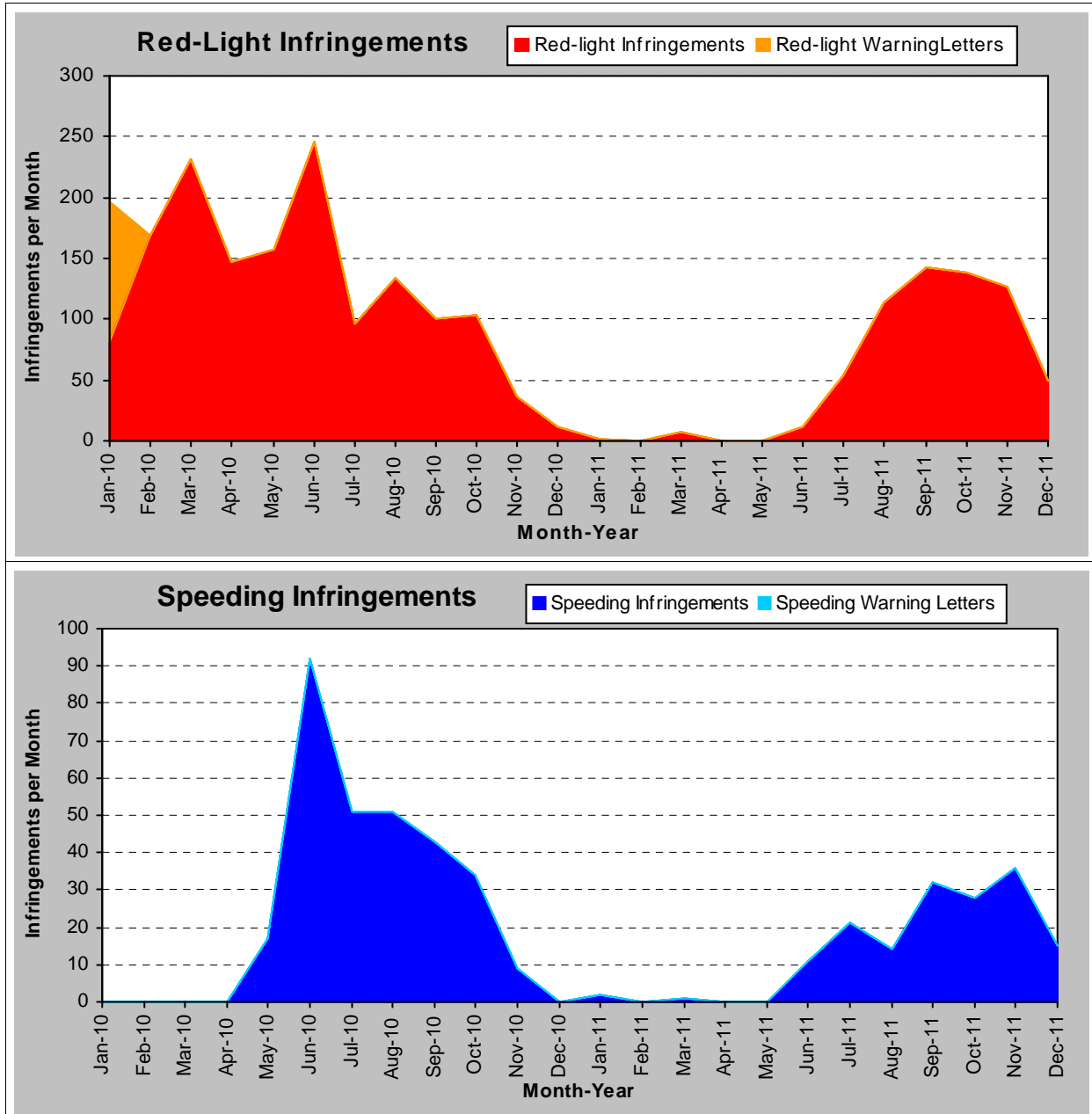
Provisional crash data shows there were 15 crashes resulting in 9 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Sackville Street and Canley Vale Road, Canley Vale

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

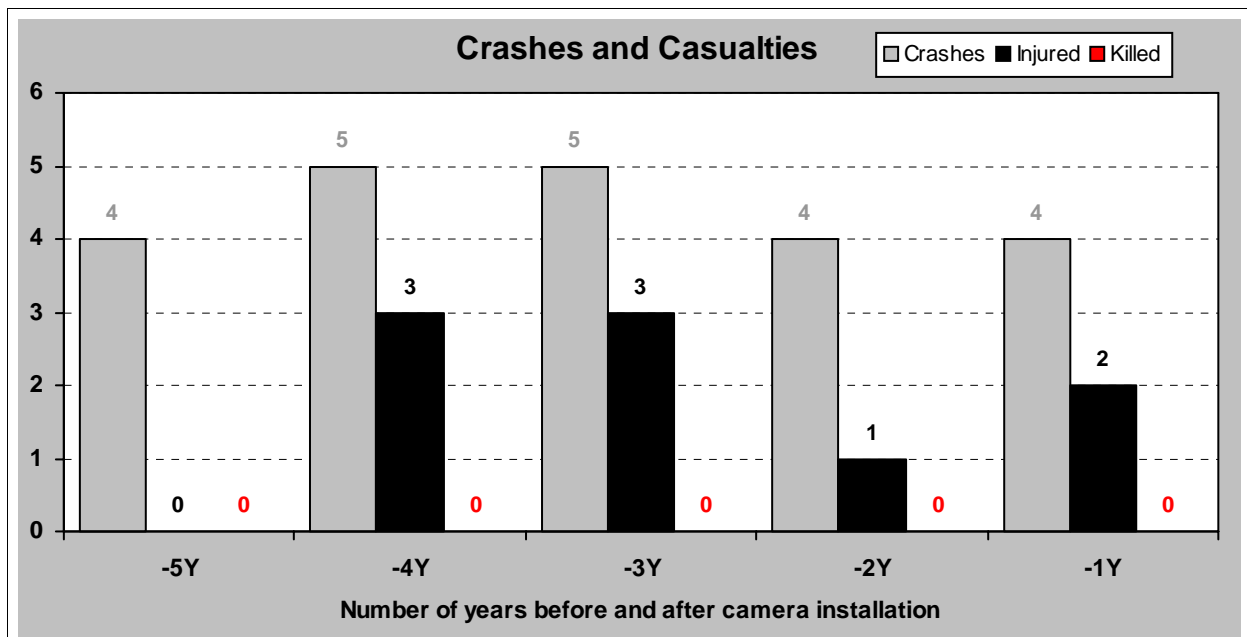
The red-light speed (safety) camera at the intersection of Sackville Street and Canley Vale Road, Canley Vale commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 22 crashes resulting in 9 injuries and 0 fatalities.

In the 268 day period from installation to the end of 2011, there were 3 crashes resulting in 2 injuries and 0 fatalities.

This represents a 7 per cent reduction in the yearly average number of crashes and a 51 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

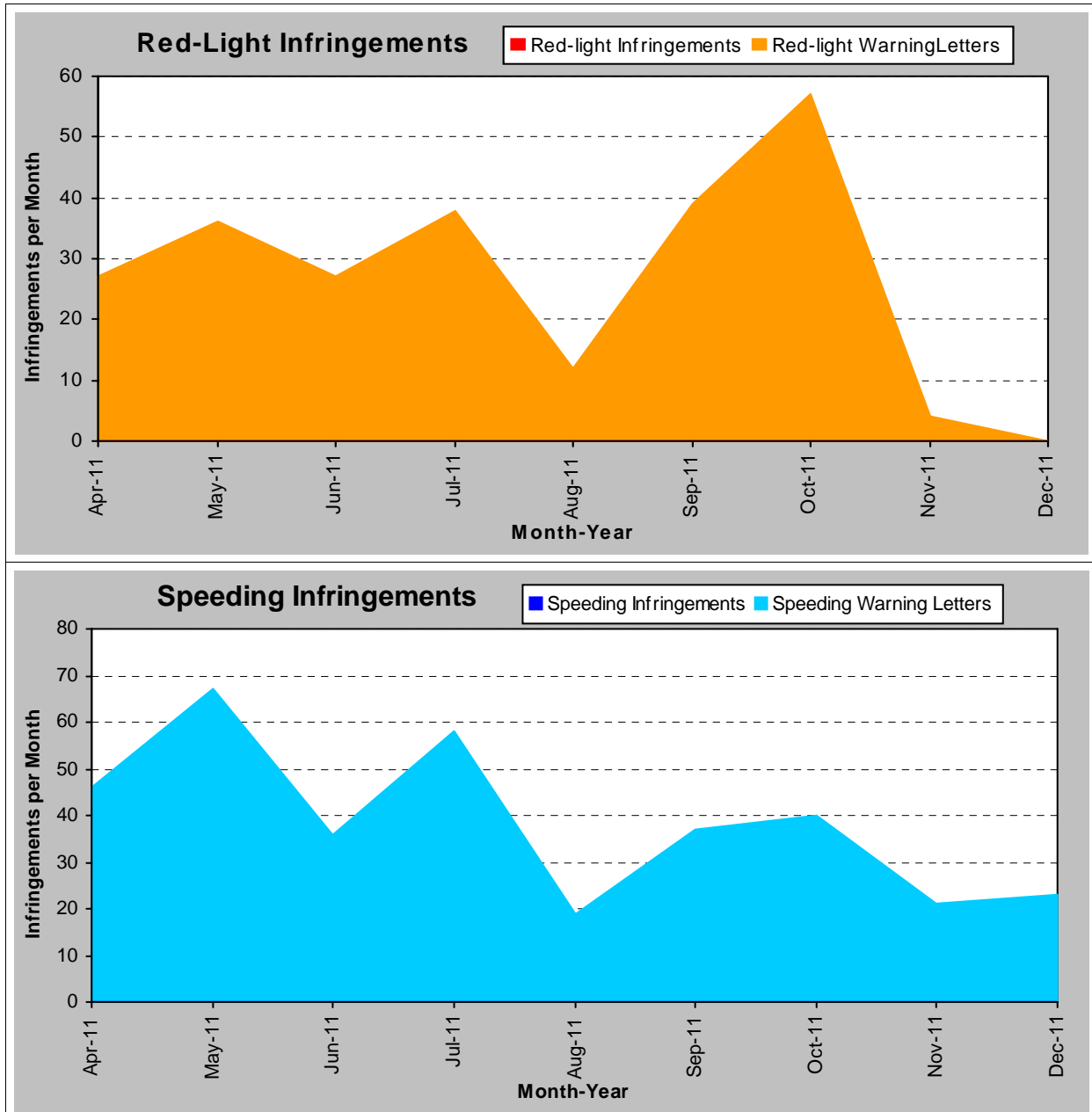




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Kingsway and Gannons Rd, Caringbah

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Kingsway and Gannons Rd, Caringbah commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

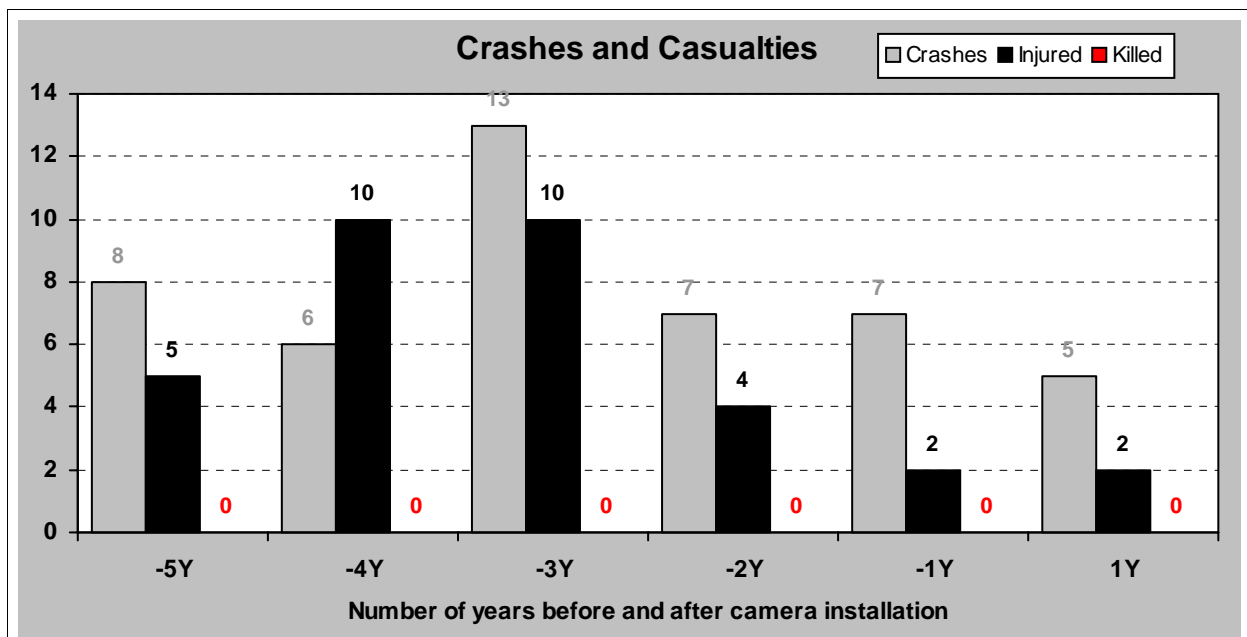
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 41 crashes resulting in 31 injuries and 0 fatalities.

In the 459 day period from installation to the end of 2011, there were 5 crashes resulting in 2 injuries and 0 fatalities.

This represents a 51 per cent reduction in the yearly average number of crashes and a 74 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

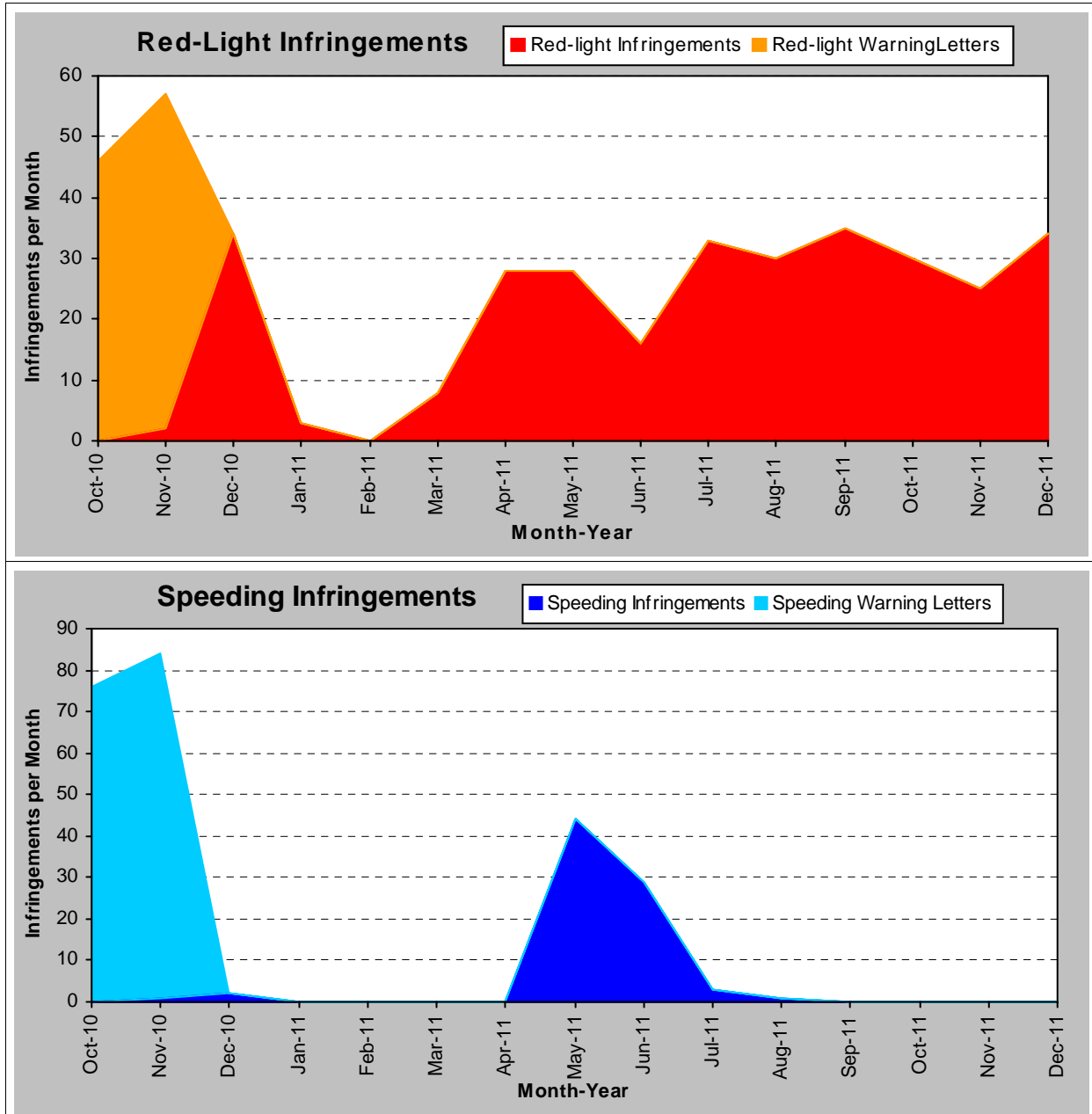
Provisional crash data shows there were 4 crashes resulting in 2 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Showground Rd and Victoria Av, Castle Hill

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Showground Rd and Victoria Av, Castle Hill commenced issuing warning letters in February 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

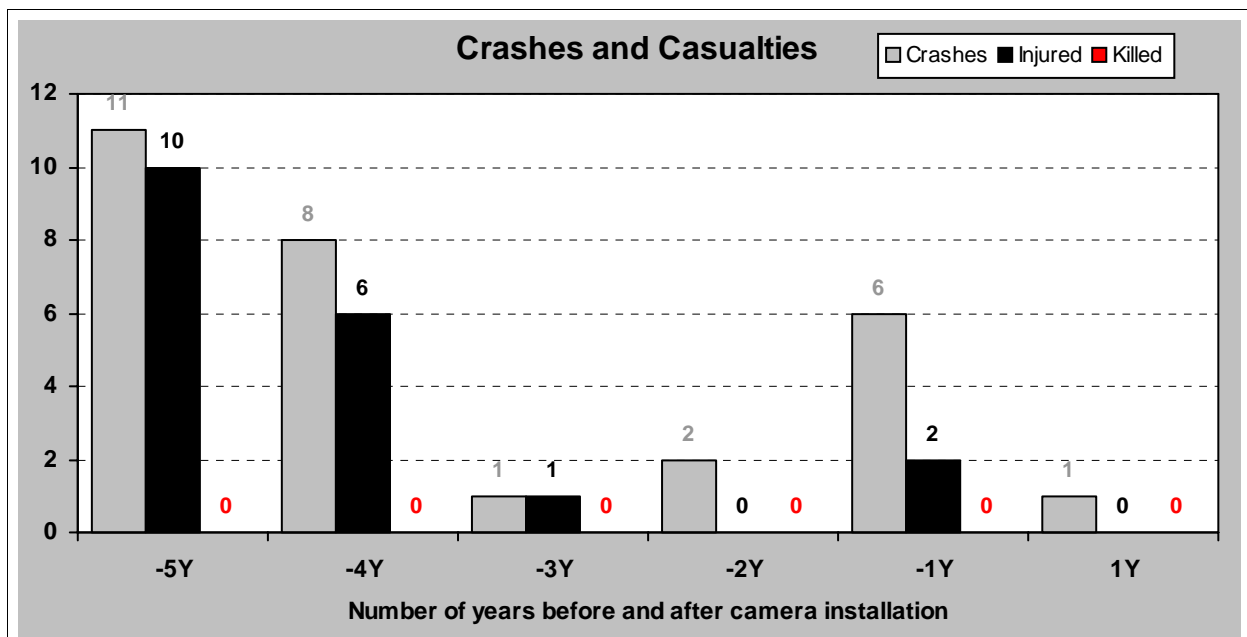
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 28 crashes resulting in 19 injuries and 0 fatalities.

In the 699 day period from installation to the end of 2011, there were 5 crashes resulting in 3 injuries and 0 fatalities.

This represents a 53 per cent reduction in the yearly average number of crashes and a 59 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

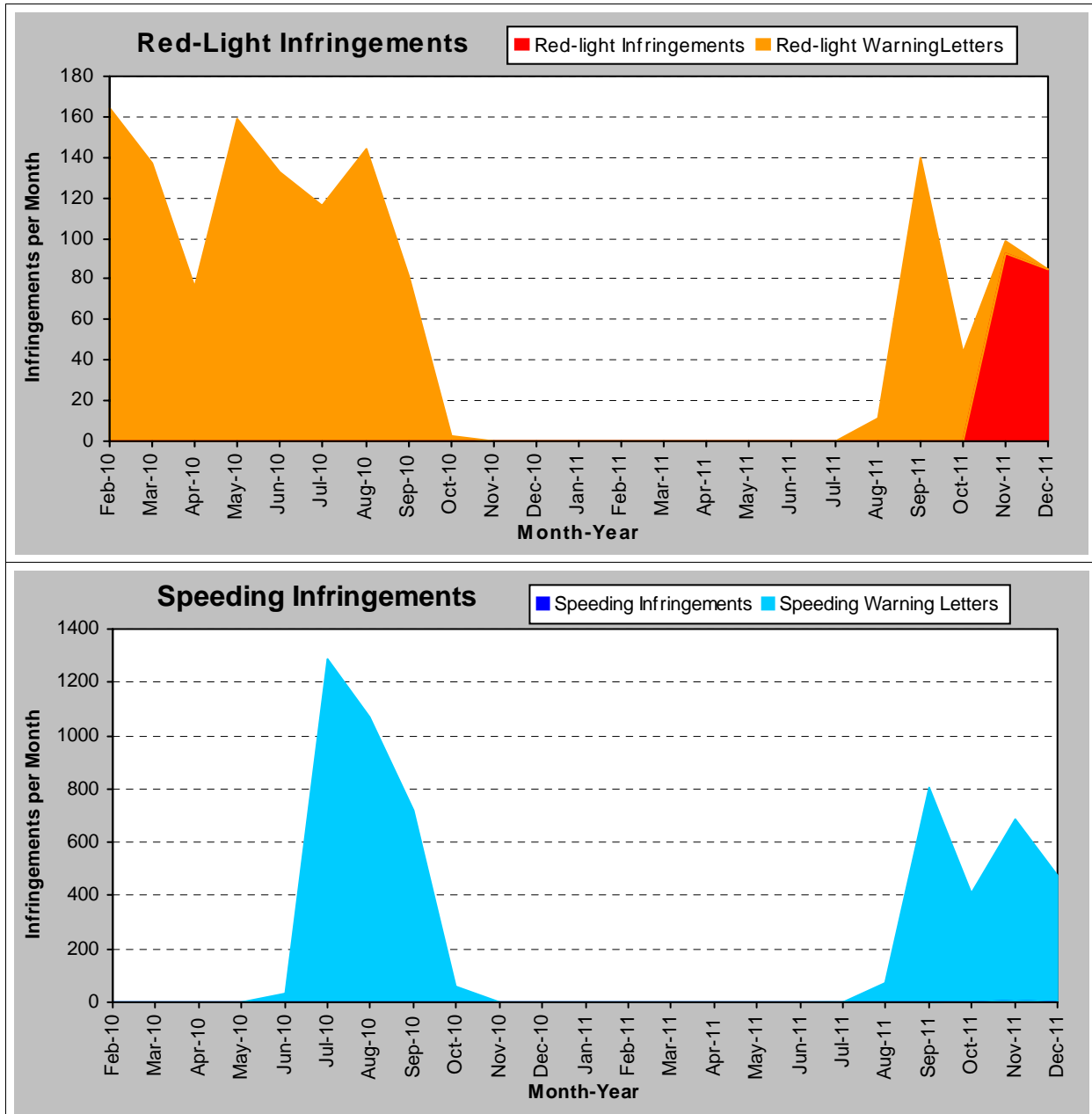
Provisional crash data shows there were 5 crashes resulting in 3 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Waldron Rd and Hector St, Chester Hill / Sefton

There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Waldron Rd and Hector St, Chester Hill commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Waldron Rd and Hector St, Sefton commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

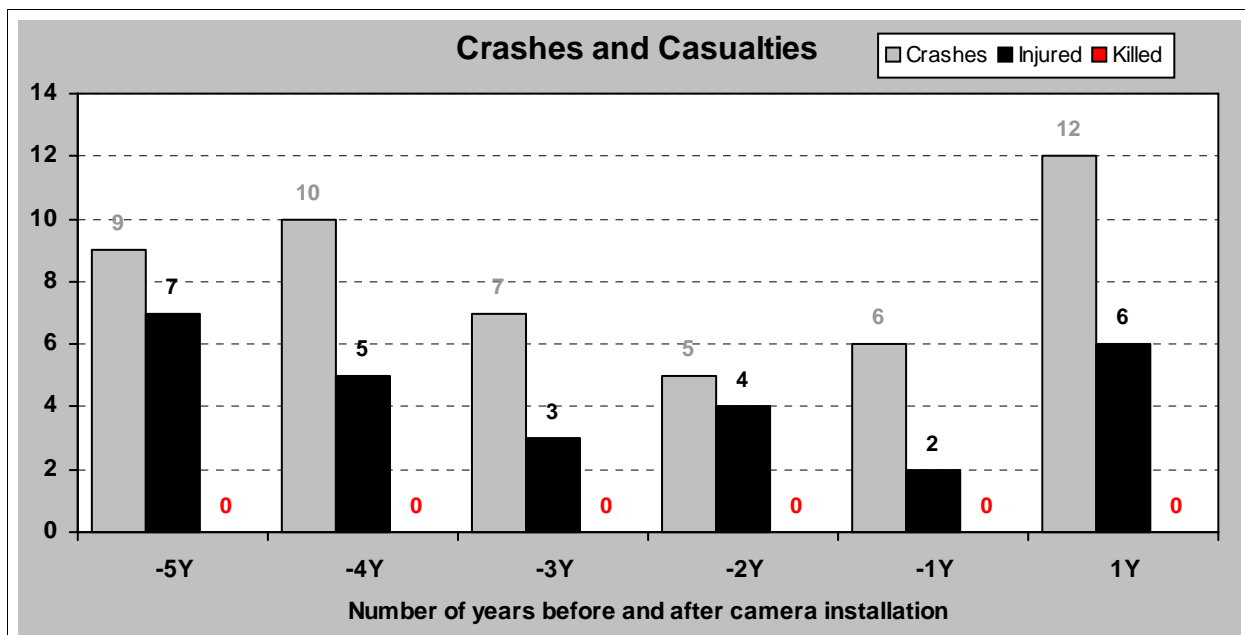
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 37 crashes resulting in 21 injuries and 0 fatalities.

In the 527 day period from installation to the end of 2011, there were 14 crashes resulting in 7 injuries and 0 fatalities.

This represents a 31 per cent increase in the yearly average number of crashes and a 15 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

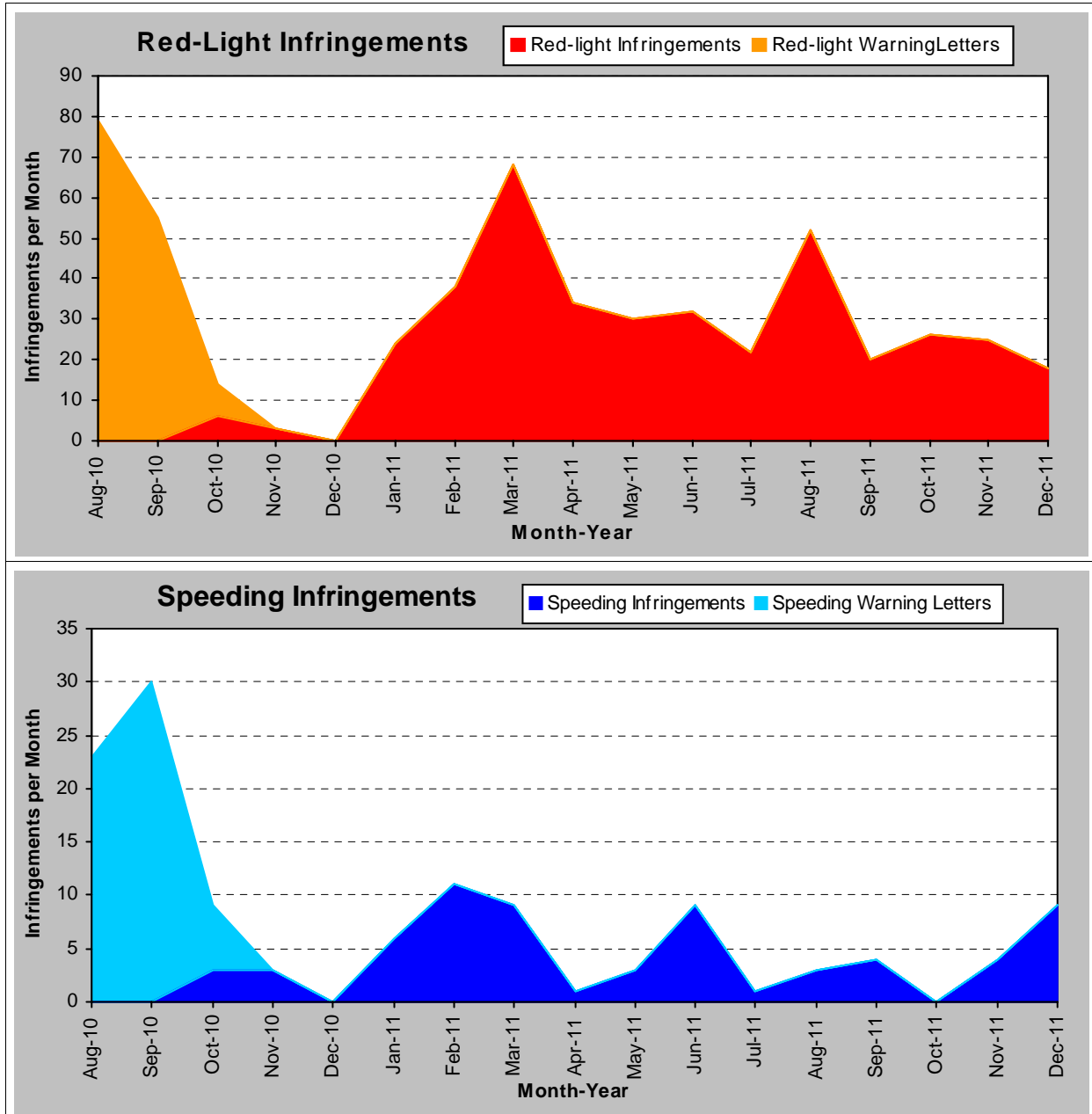
Provisional crash data shows there were 7 crashes resulting in 4 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Pacific Highway and Hume Street, Crows Nest

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

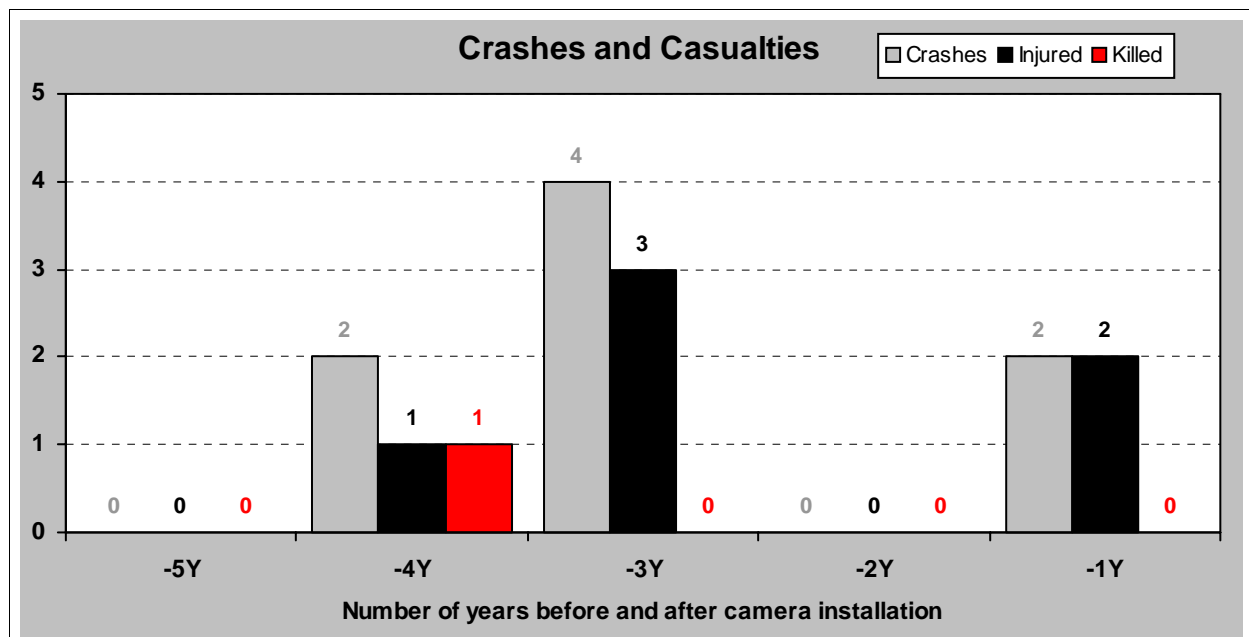
The red-light speed (safety) camera at the intersection of Pacific Highway and Hume Street, Crows Nest commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 8 crashes resulting in 6 injuries and 1 fatality.

In the 258 day period from installation to the end of 2011, there were 0 crashes resulting in 0 injuries and 0 fatalities.

This represents a 100 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

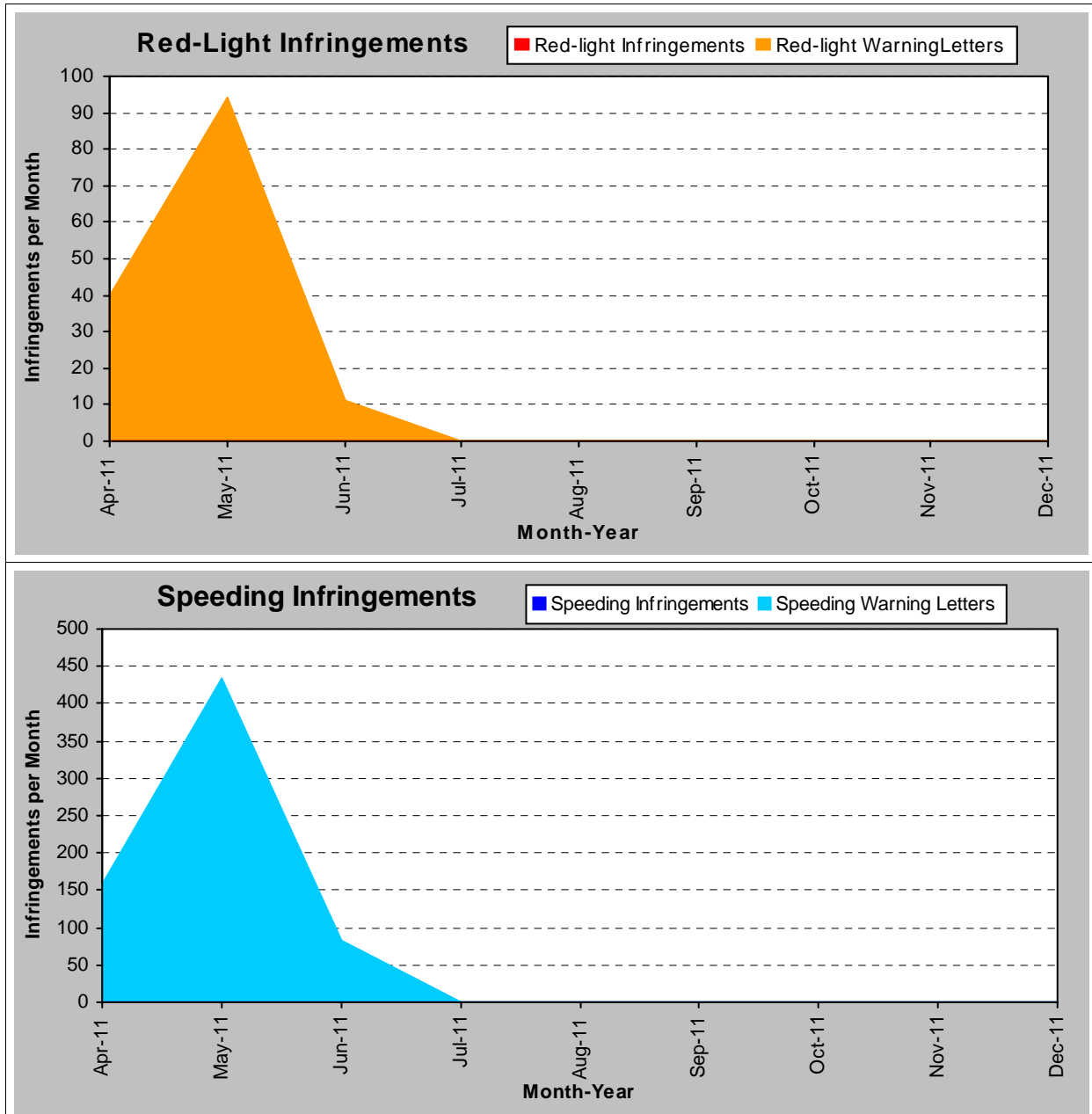




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Craigend St and McLachlan Av, Darlinghurst

There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Craigend St and McLachlan Av, Darlinghurst commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

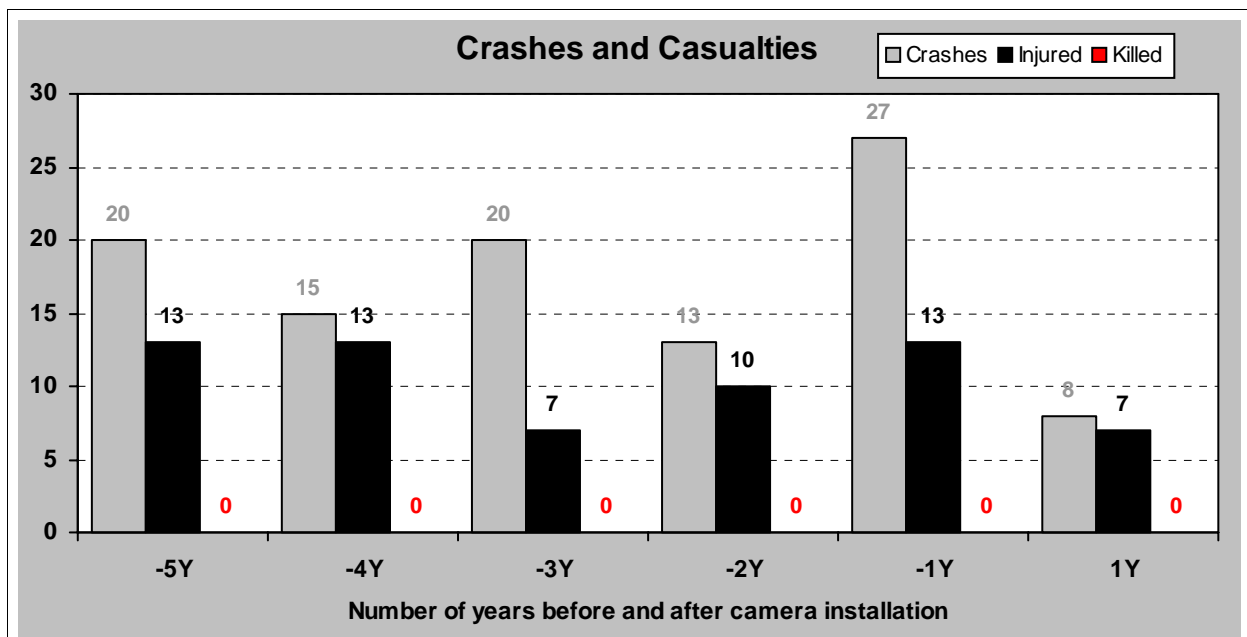
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 95 crashes resulting in 56 injuries and 0 fatalities.

In the 492 day period from installation to the end of 2011, there were 11 crashes resulting in 8 injuries and 0 fatalities.

This represents a 57 per cent reduction in the yearly average number of crashes and a 47 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

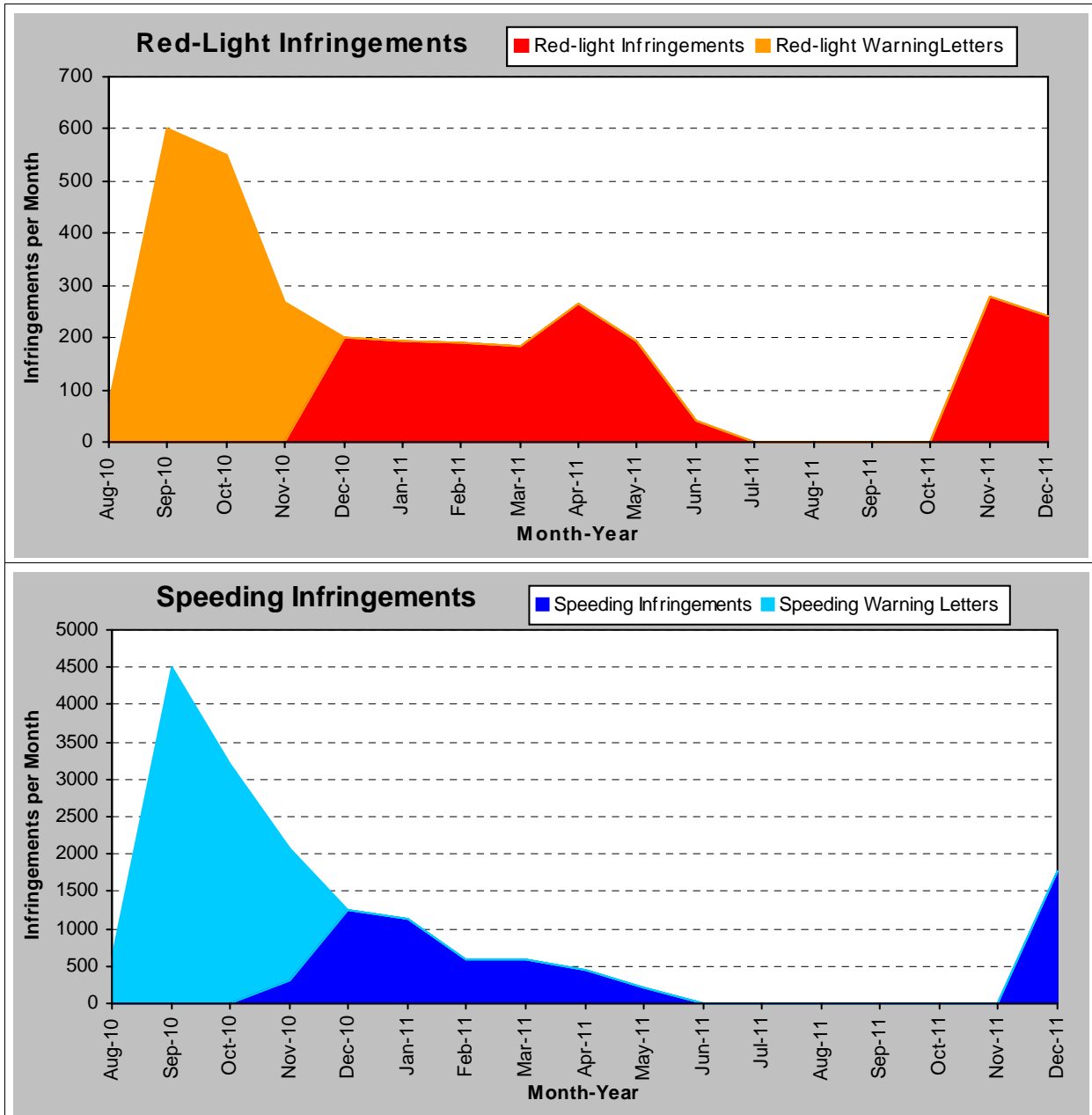
Provisional crash data shows there were 7 crashes resulting in 7 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued. This location was impacted by major civil works between June and November 2011.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Pittwater Road and Harbord Road, Dee Why

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

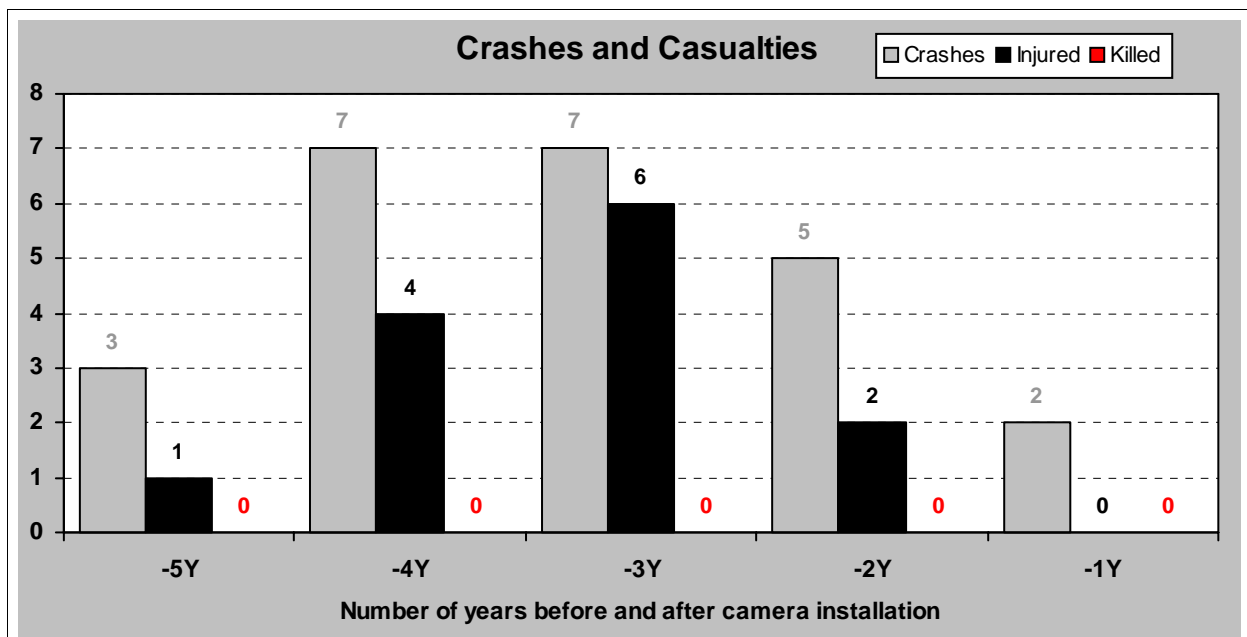
The red-light speed (safety) camera at the intersection of Pittwater Road and Harbord Road, Dee Why commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 24 crashes resulting in 13 injuries and 0 fatalities.

In the 188 day period from installation to the end of 2011, there were 3 crashes resulting in 1 injury and 0 fatalities.

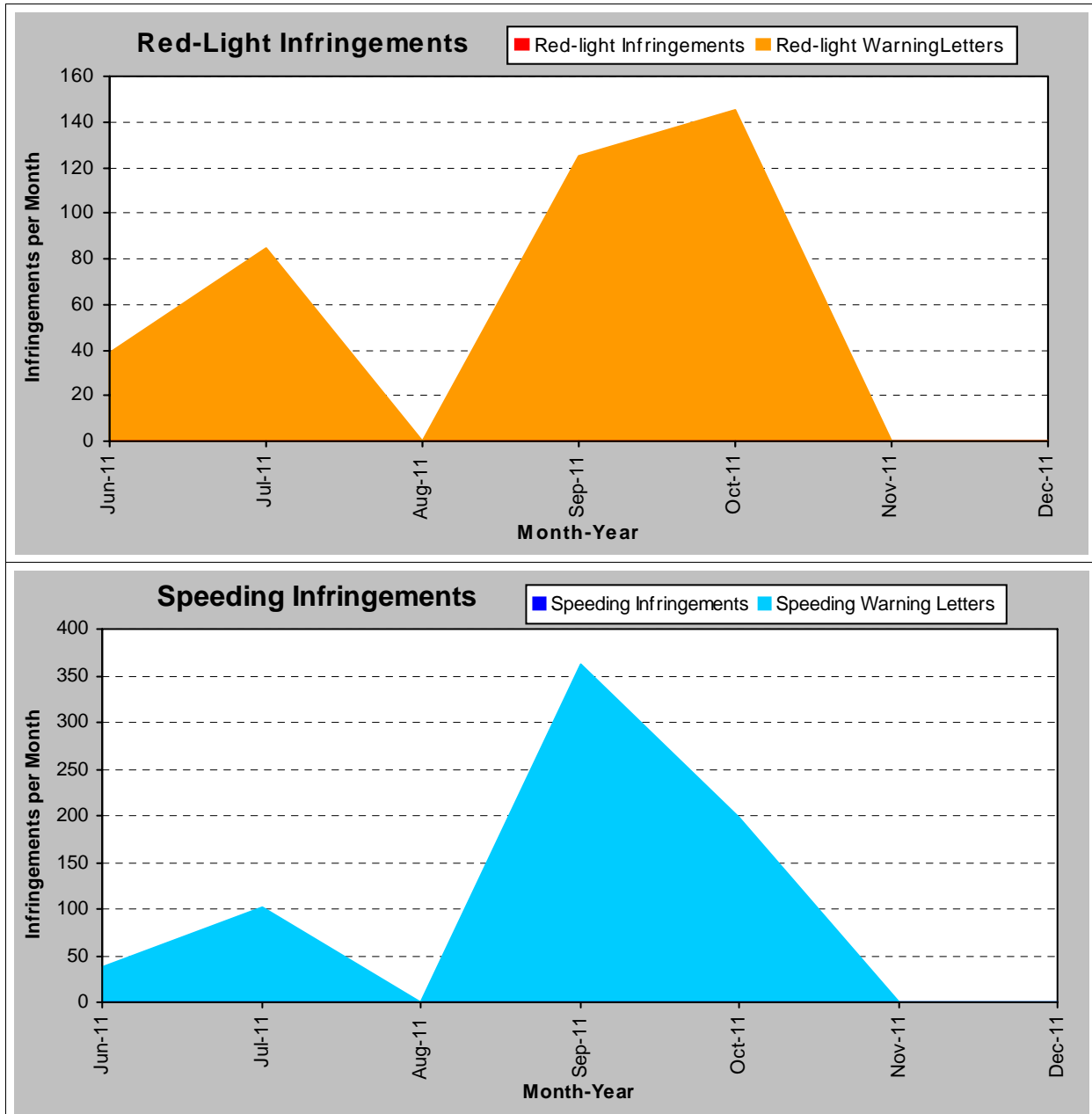
This represents a 21 per cent increase in the yearly average number of crashes and a 25 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Blaxland Road and May Street, Eastwood

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

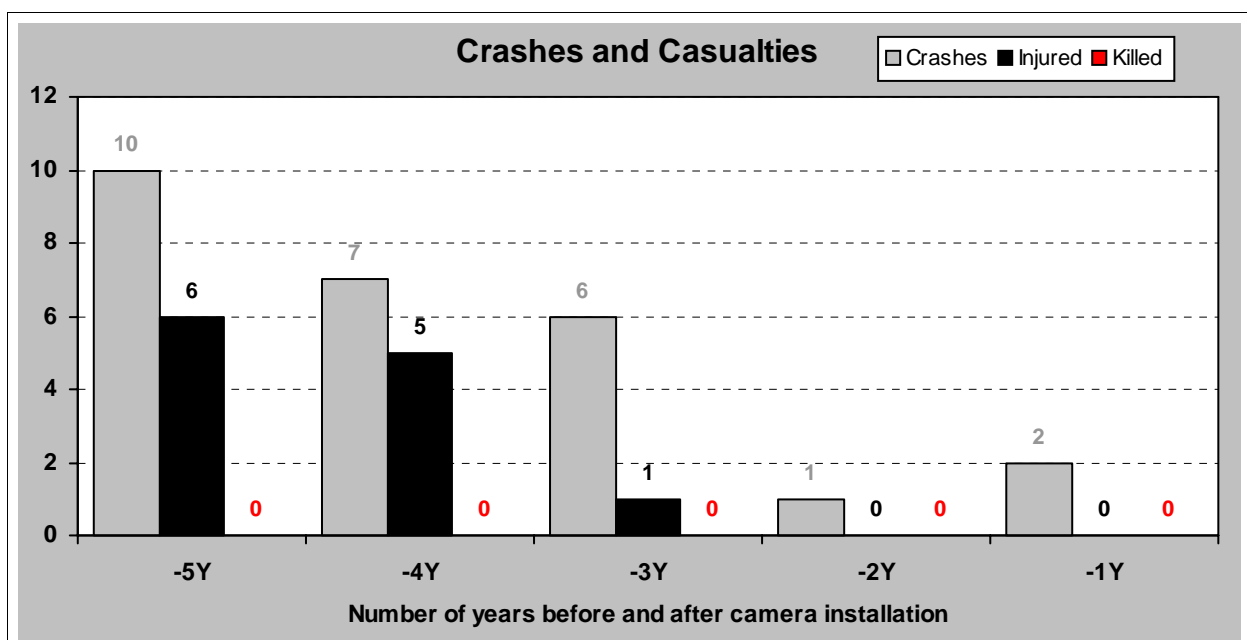
The red-light speed (safety) camera at the intersection of Blaxland Road and May Street, Eastwood commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 26 crashes resulting in 12 injuries and 0 fatalities.

In the 268 day period from installation to the end of 2011, there were 2 crashes resulting in 1 injury and 0 fatalities.

This represents a 48 per cent reduction in the yearly average number of crashes and a 43 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

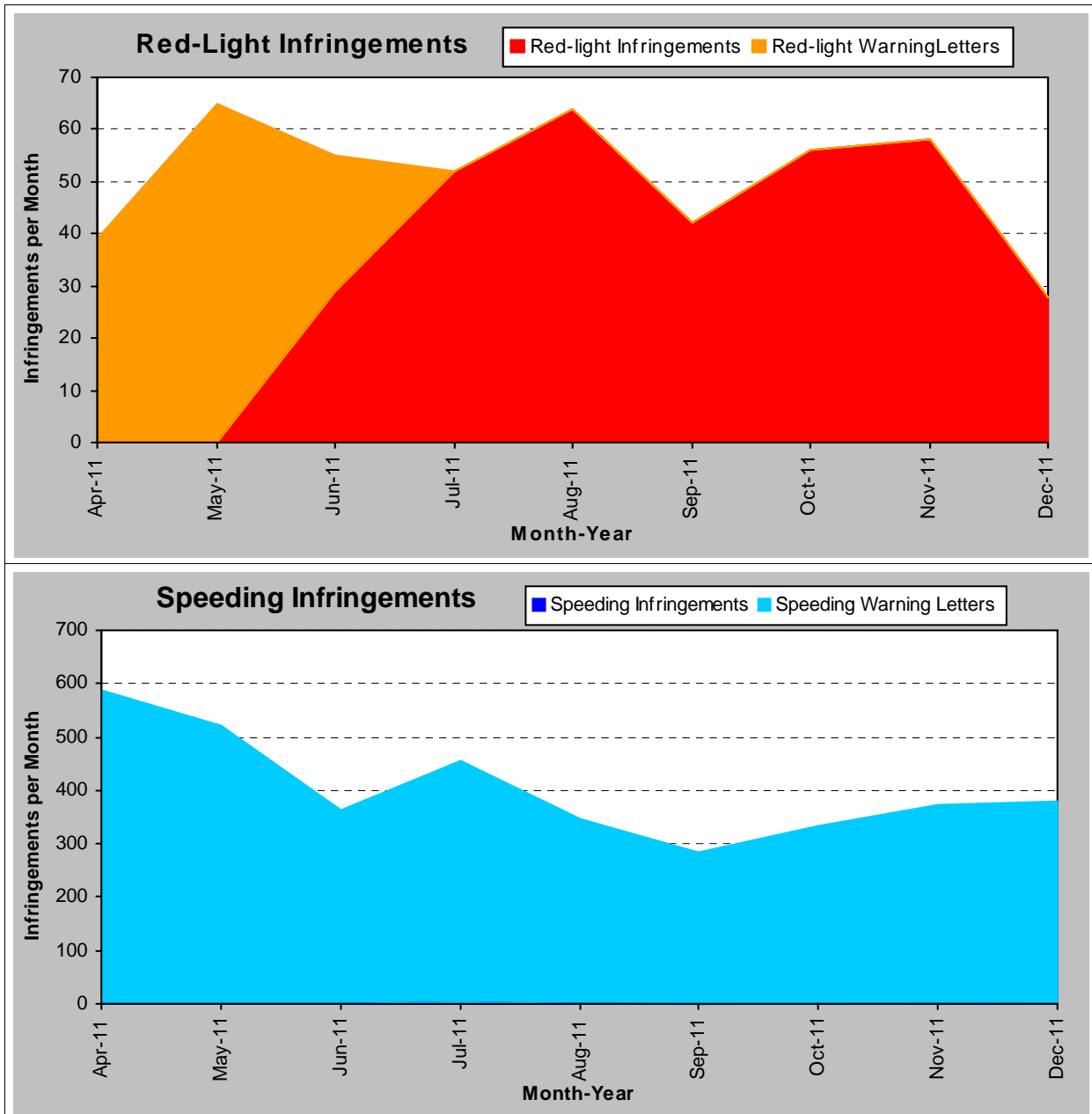


## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.

One infringement was issued in June and two infringements were issued in July for combined red-light and speeding offences. The speeding offences were subsequently withdrawn by the State Debt Recovery Office.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Hamilton Rd and The Boulevard, Fairfield

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Hamilton Rd and The Boulevard, Fairfield commenced issuing warning letters in October 2010. The camera enforces red-light running and speeding offences.

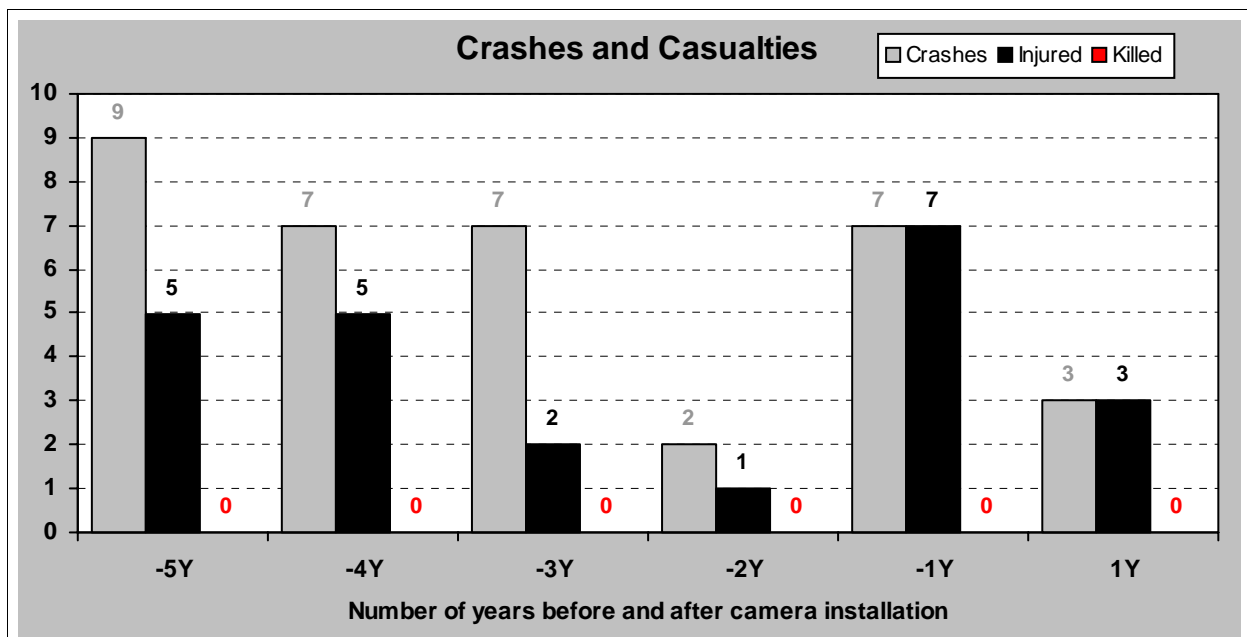
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 32 crashes resulting in 20 injuries and 0 fatalities.

In the 447 day period from installation to the end of 2011, there were 5 crashes resulting in 3 injuries and 0 fatalities.

This represents a 36 per cent reduction in the yearly average number of crashes and a 39 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 5 crashes resulting in 3 casualties at this intersection in 2011.

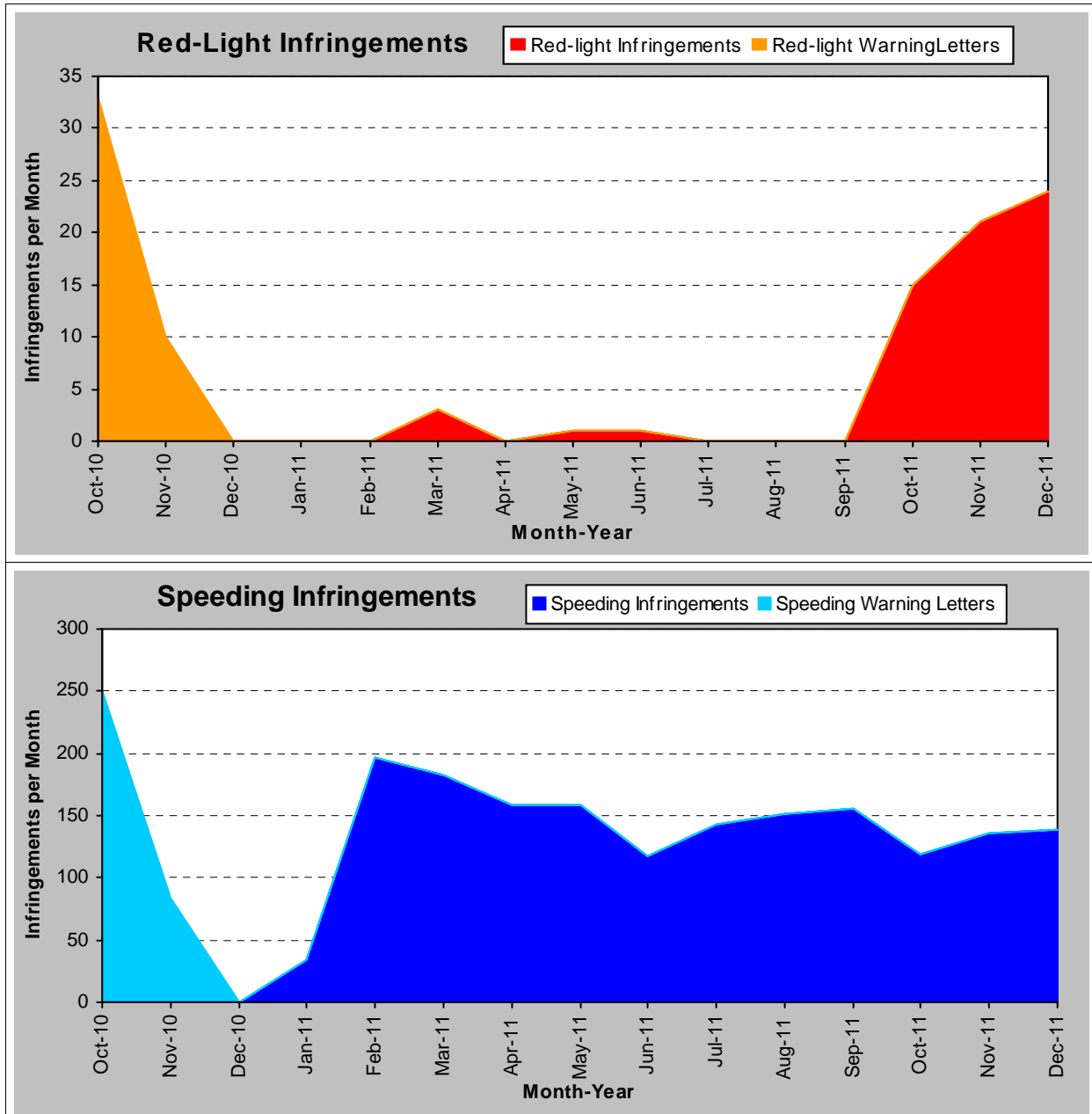




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Princes Highway and O'Briens Road, Figtree

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

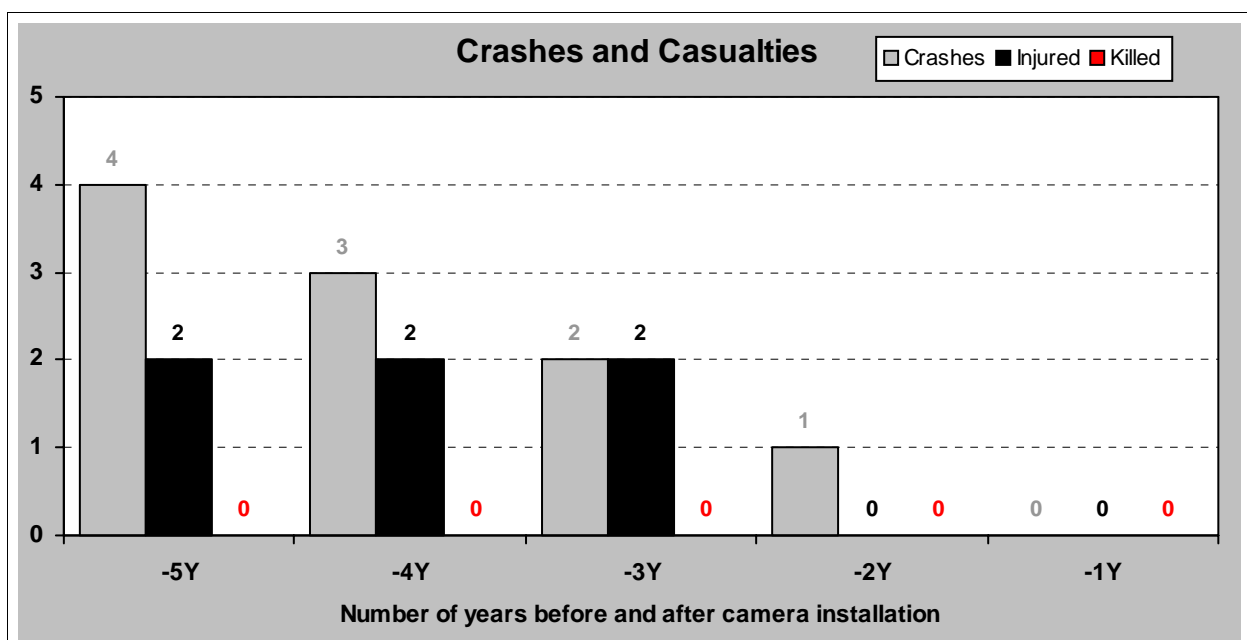
The red-light speed (safety) camera at the intersection of Princes Highway and O'Briens Road, Figtree commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 10 crashes resulting in 6 injuries and 0 fatalities.

In the 258 day period from installation to the end of 2011, there were 3 crashes resulting in 3 injuries and 0 fatalities.

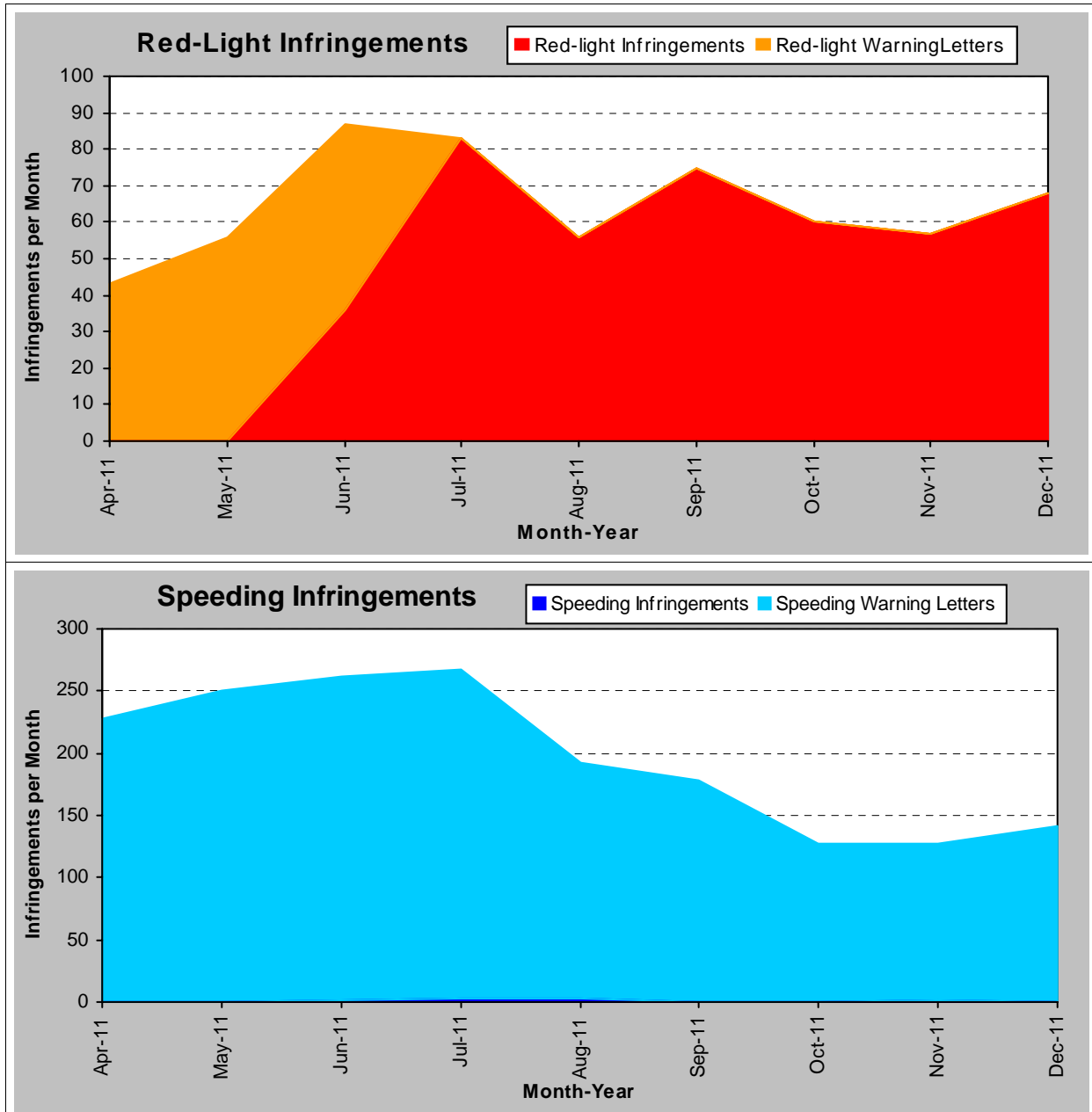
This represents a 112 per cent increase in the yearly average number of crashes and a 254 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Fairlight St and Ramsay Rd, Five Dock

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Fairlight St and Ramsay Rd, Five Dock commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

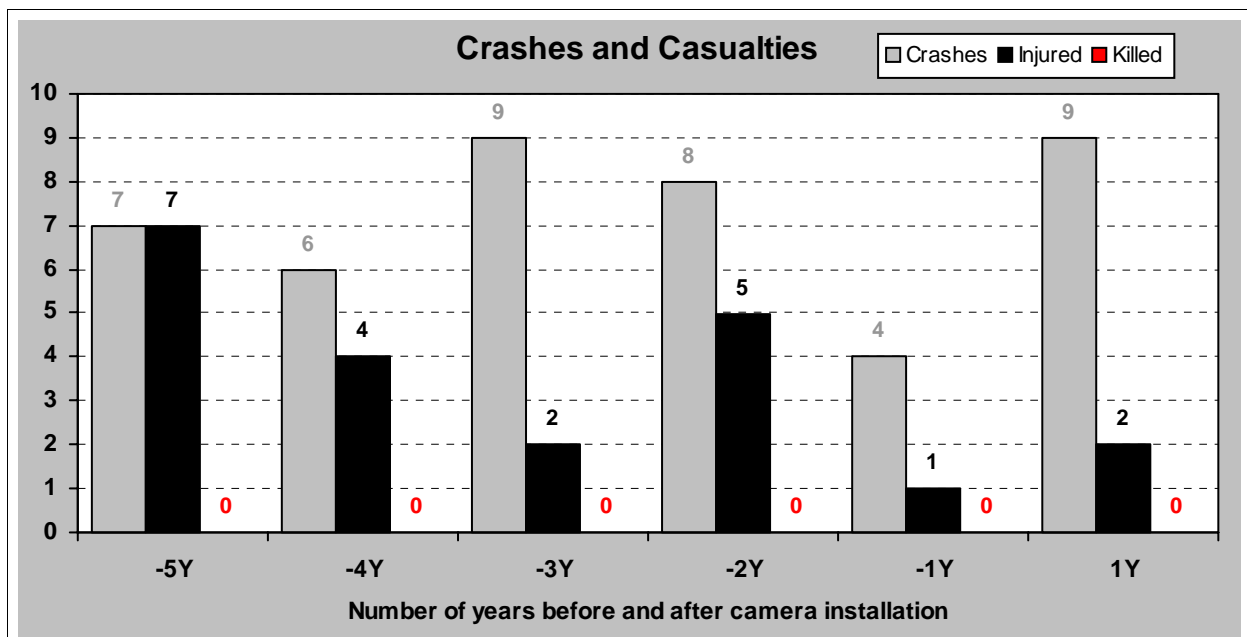
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 34 crashes resulting in 19 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 10 crashes resulting in 2 injuries and 0 fatalities.

This represents a 29 per cent increase in the yearly average number of crashes and a 54 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

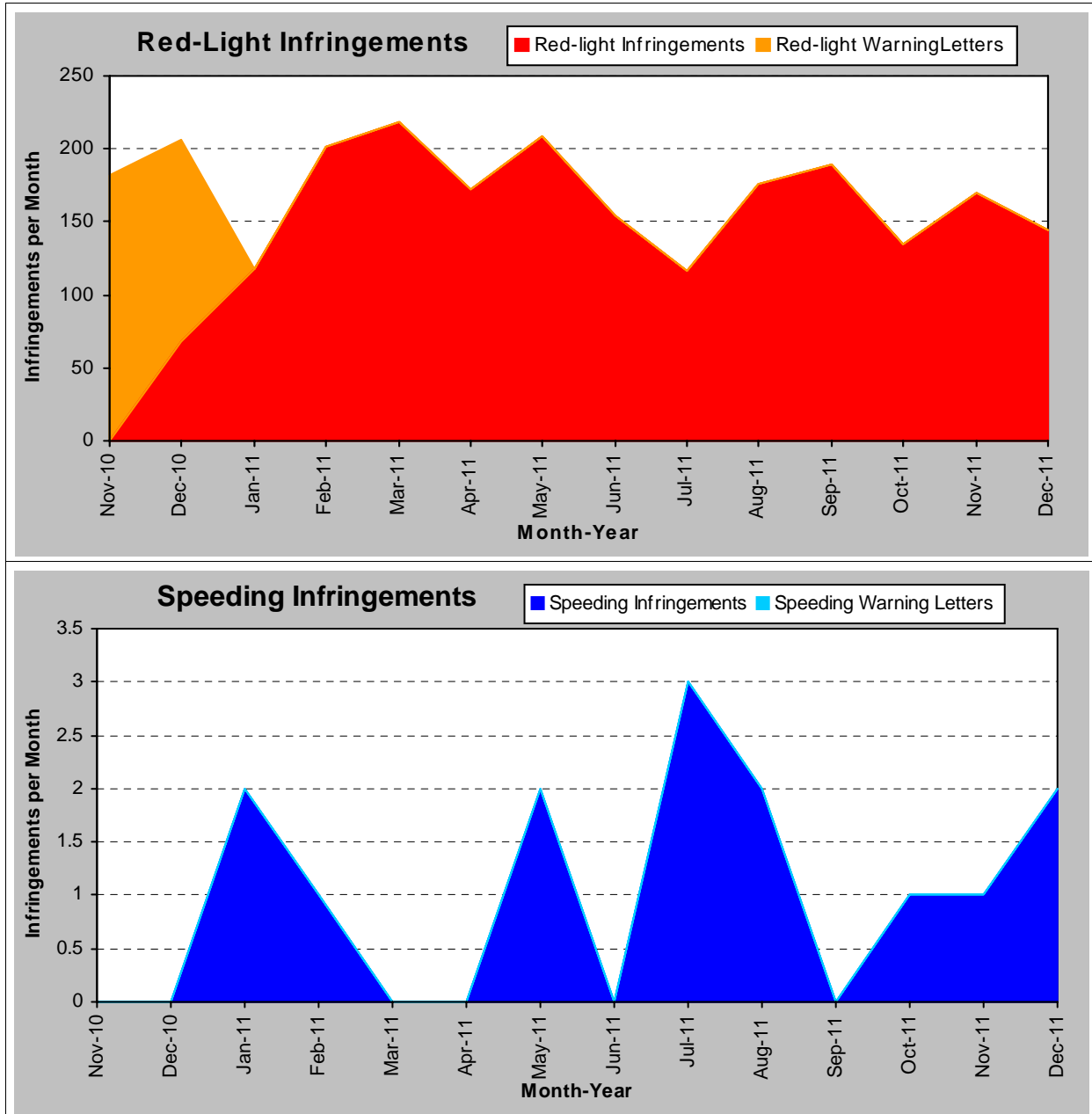
Provisional crash data shows there were 8 crashes resulting in 2 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Woodville Rd and M4 on ramp, Granville

There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Woodville Rd and M4 on ramp, Granville commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

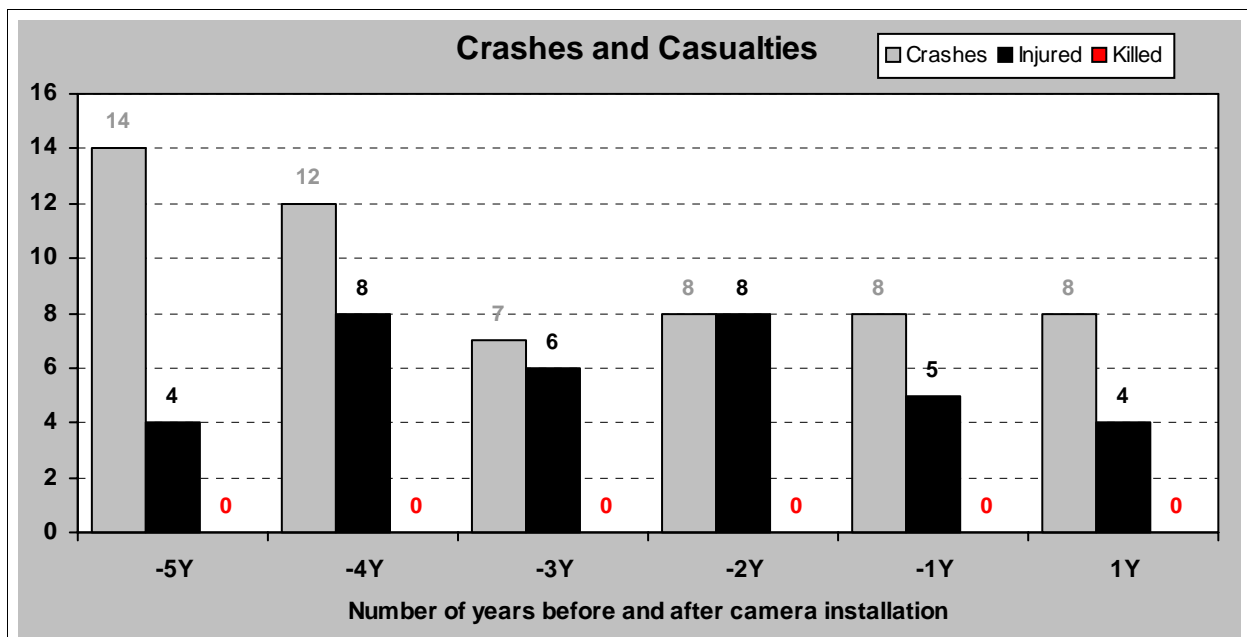
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 49 crashes resulting in 31 injuries and 0 fatalities.

In the 479 day period from installation to the end of 2011, there were 13 crashes resulting in 8 injuries and 0 fatalities.

This represents a 1 per cent increase in the yearly average number of crashes and a 2 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

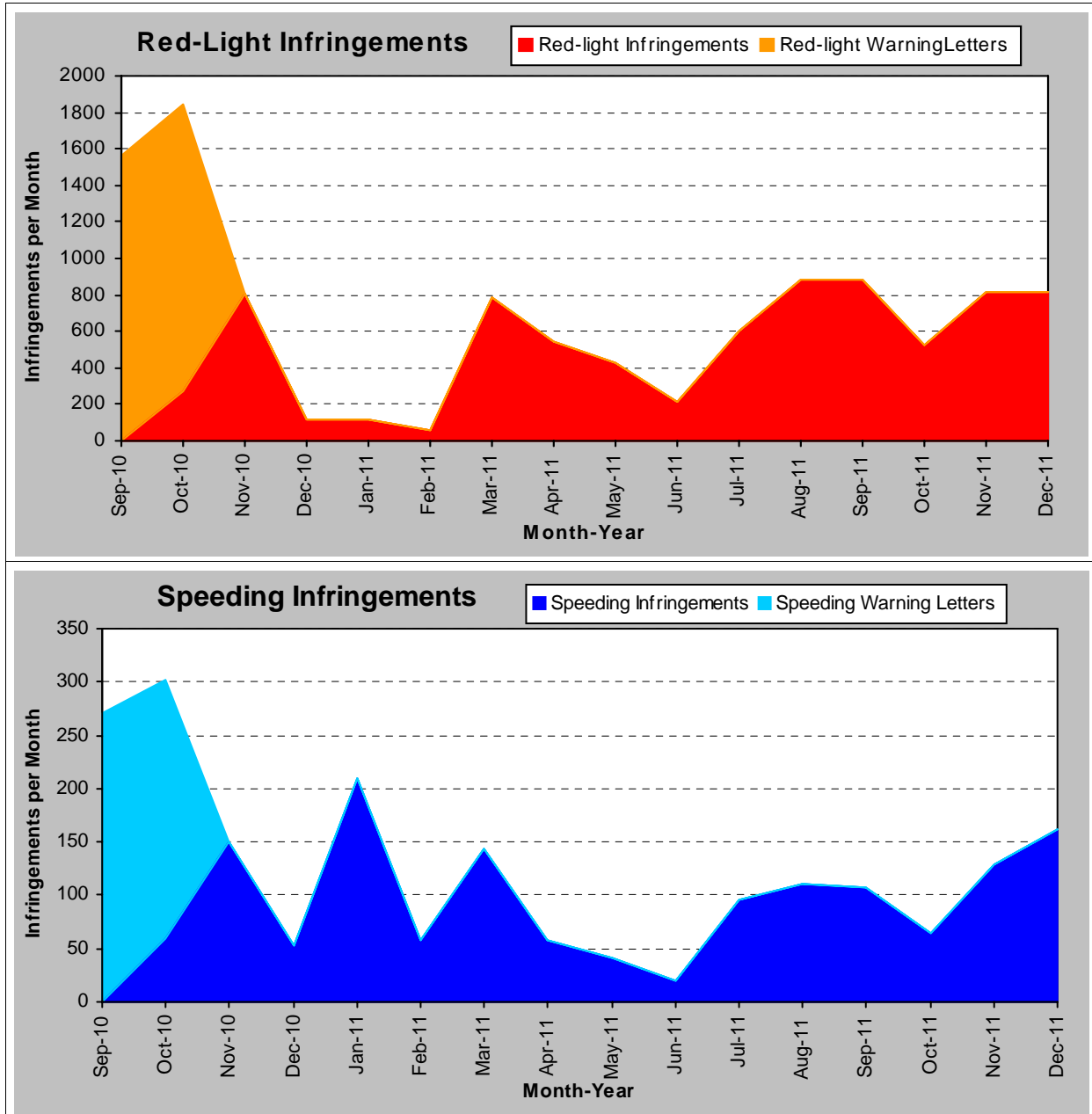
Provisional crash data shows there were 8 crashes resulting in 5 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Woodville Rd and Guildford Rd, Guildford

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Woodville Rd and Guildford Rd, Guildford commenced issuing warning letters in November 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

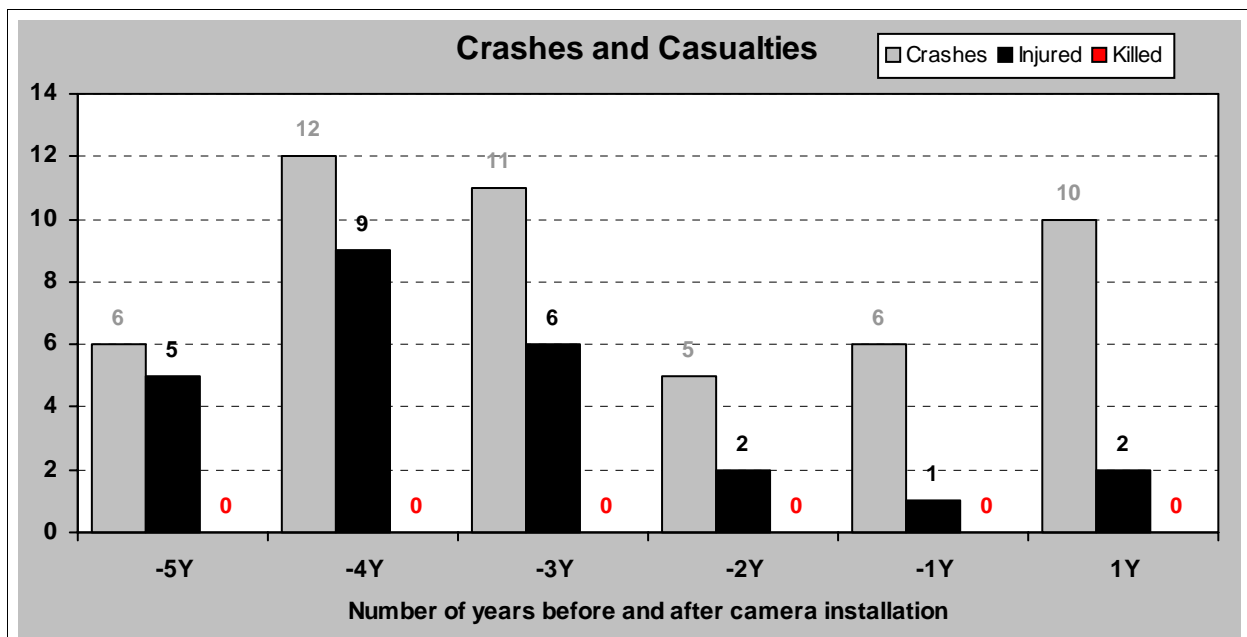
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 40 crashes resulting in 23 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 10 crashes resulting in 2 injuries and 0 fatalities.

This represents a 10 per cent increase in the yearly average number of crashes and a 62 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 8 crashes resulting in 2 casualties at this intersection in 2011.

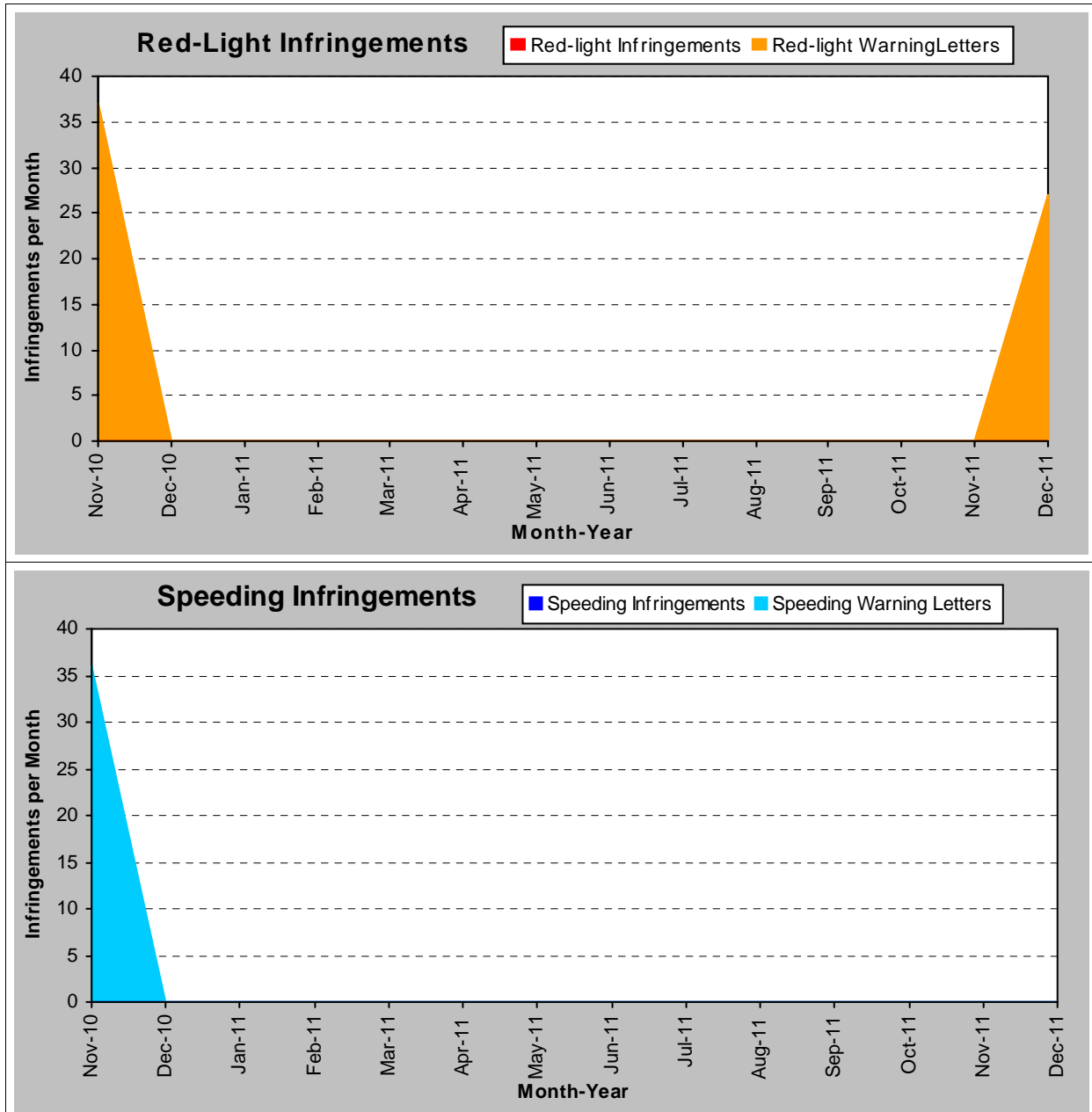




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Dobroyd Pde and Mortley Drive, Haberfield

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

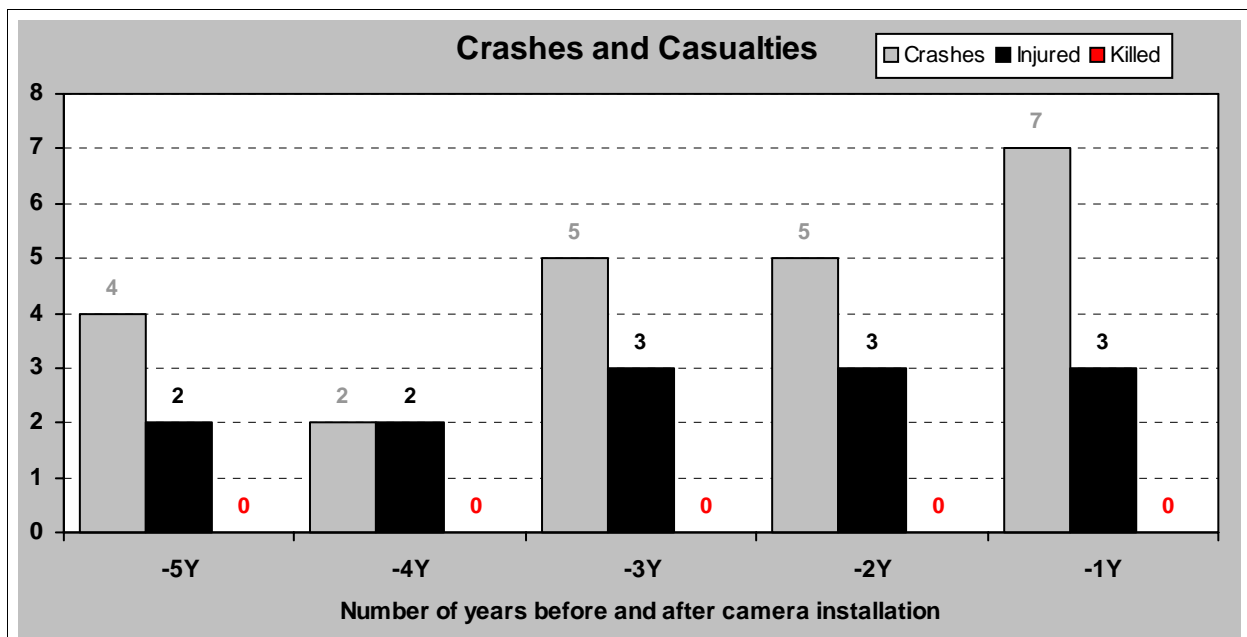
The red-light speed (safety) camera at the intersection of Dobroyd Pde and Mortley Drive, Haberfield commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 23 crashes resulting in 13 injuries and 0 fatalities.

In the 200 day period from installation to the end of 2011, there were 8 crashes resulting in 4 injuries and 0 fatalities.

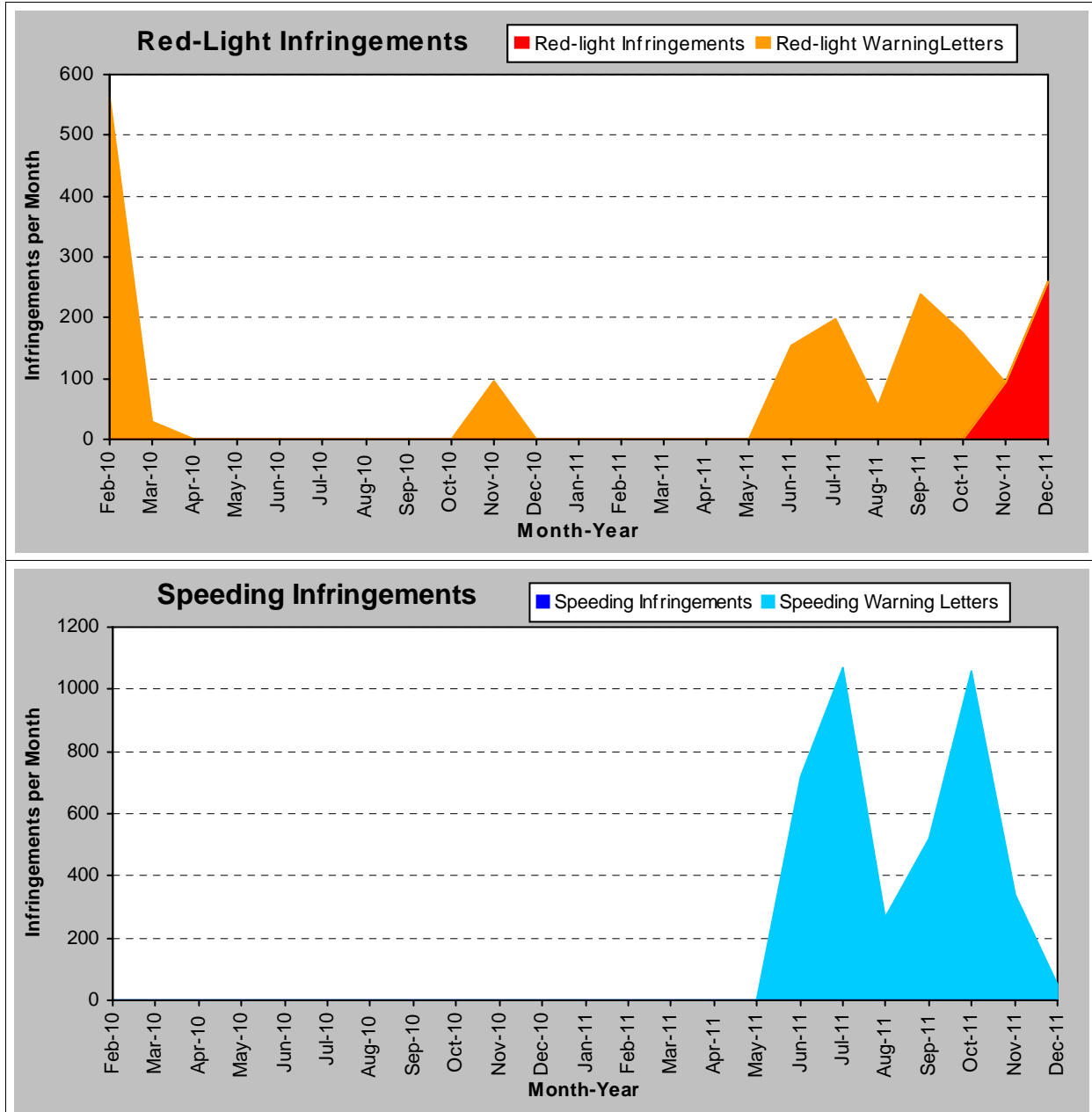
This represents a 218 per cent increase in the yearly average number of crashes and a 181 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Parramatta Road and Sloane Street, Haberfield

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

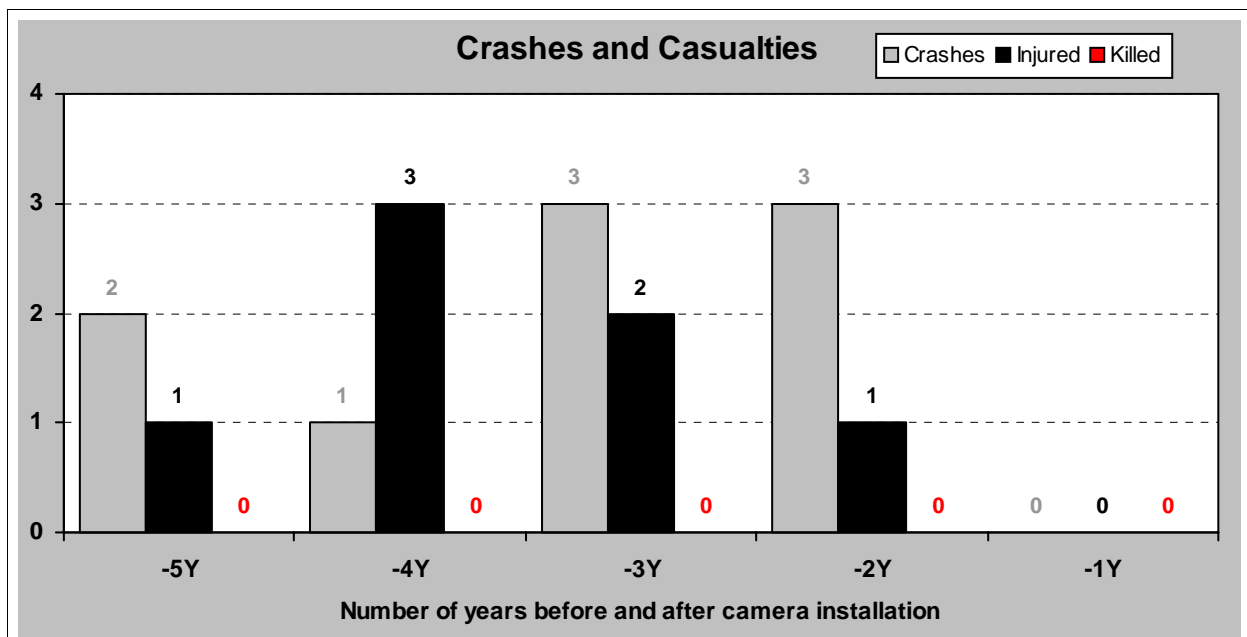
The red-light speed (safety) camera at the intersection of Parramatta Road and Sloane Street, Haberfield commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 9 crashes resulting in 7 injuries and 0 fatalities.

In the 188 day period from installation to the end of 2011, there were 0 crashes resulting in 0 injuries and 0 fatalities.

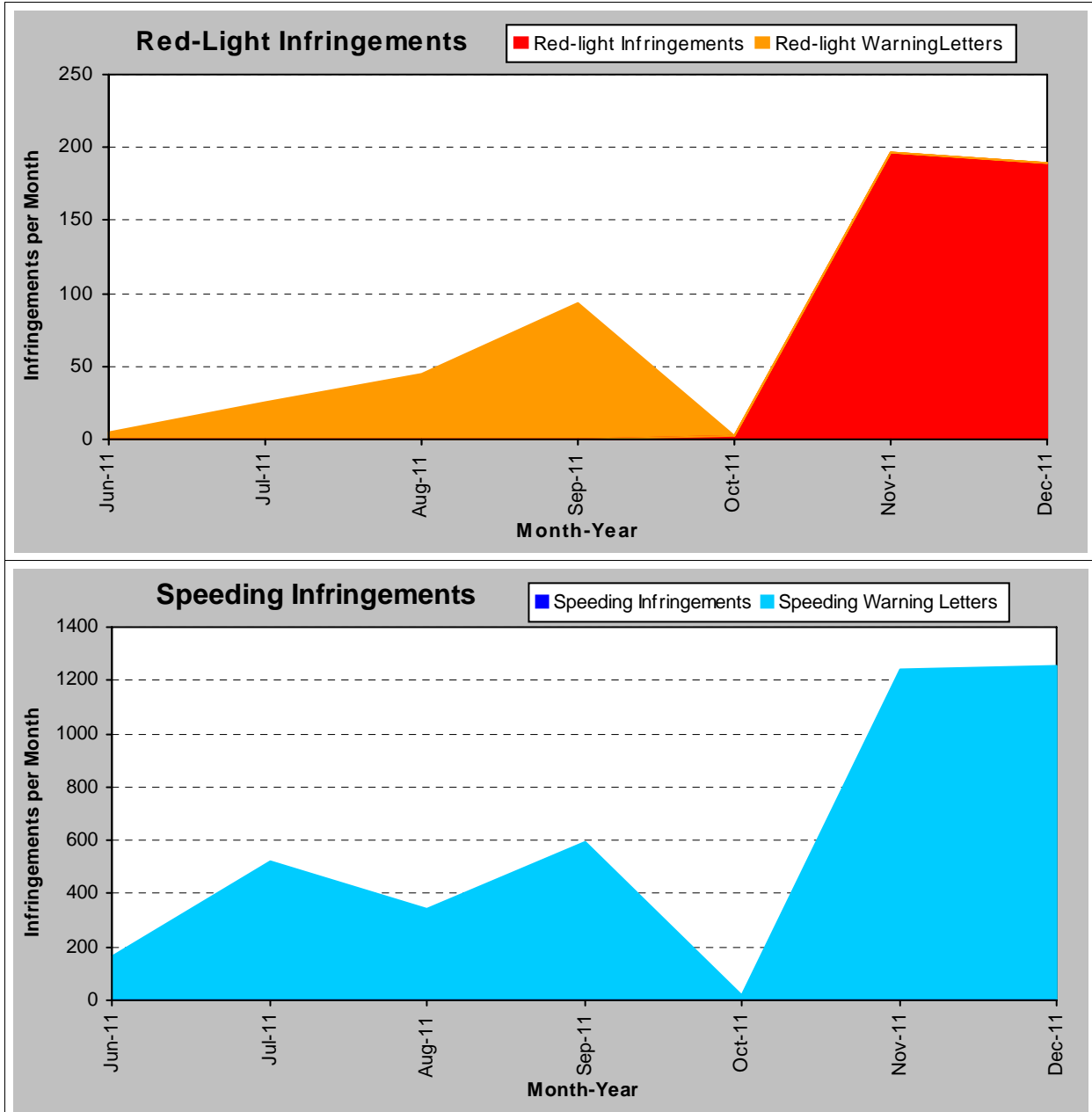
This represents a 100 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Tudor Street and Beaumont Street, Hamilton

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

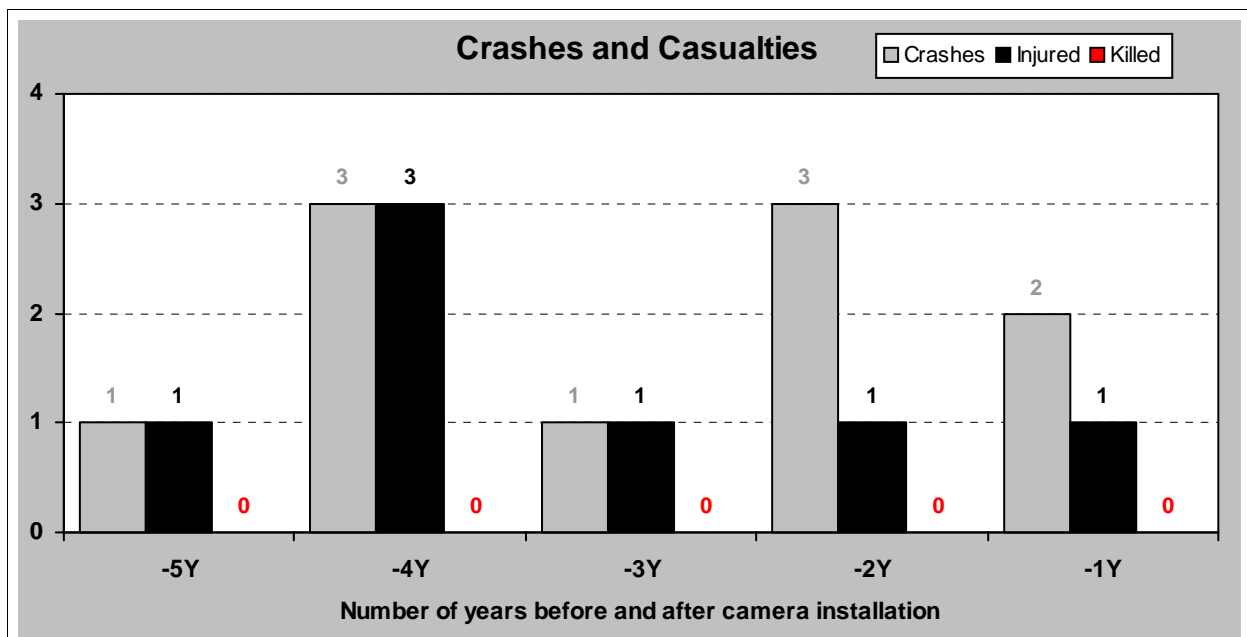
The red-light speed (safety) camera at the intersection of Tudor Street and Beaumont Street, Hamilton commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 10 crashes resulting in 7 injuries and 0 fatalities.

In the 188 day period from installation to the end of 2011, there were 0 crashes resulting in 0 injuries and 0 fatalities.

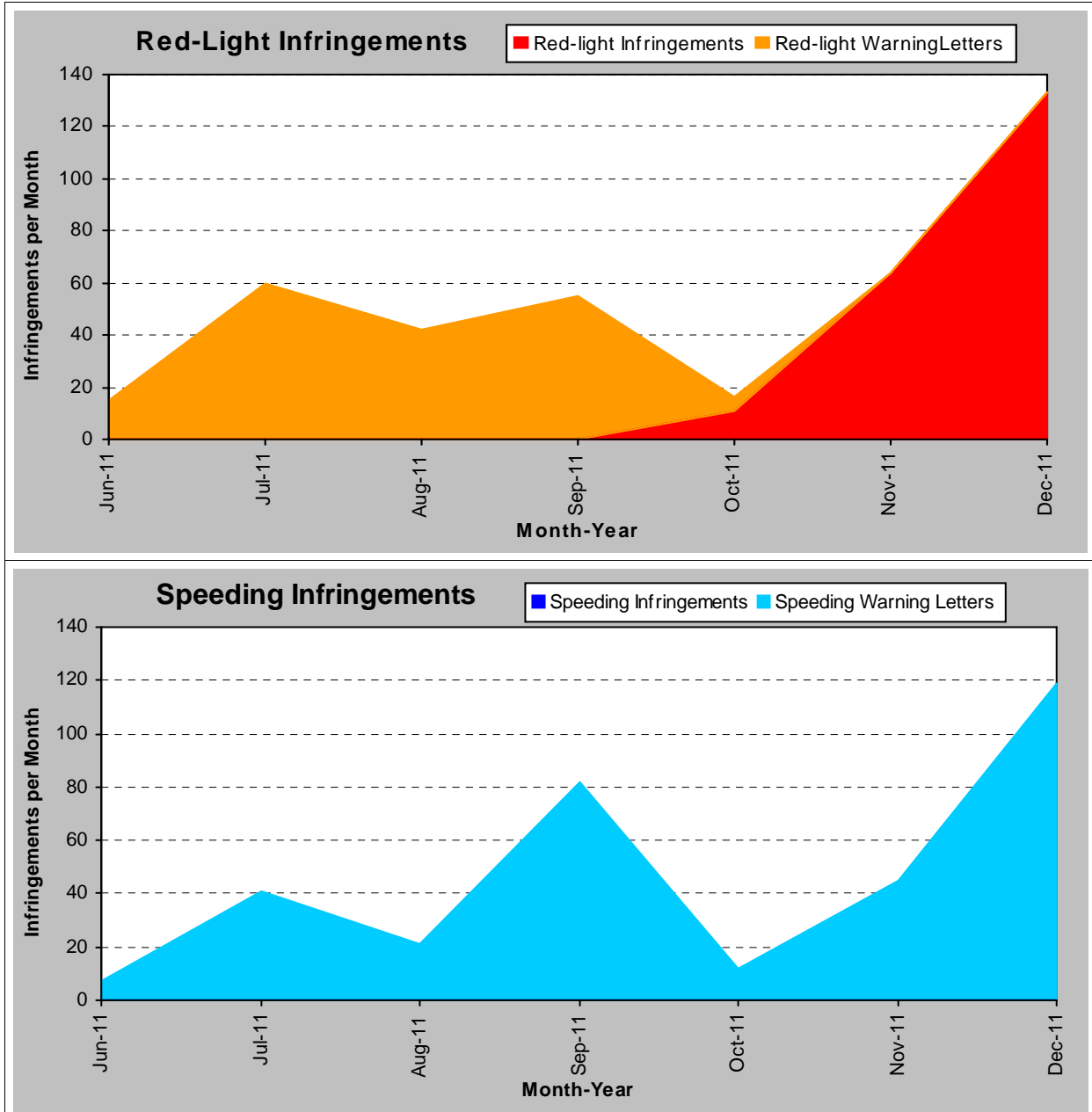
This represents a 100 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Pacific Highway and Parry Street, Hamilton East

There is one camera at the intersection.

### Camera 1

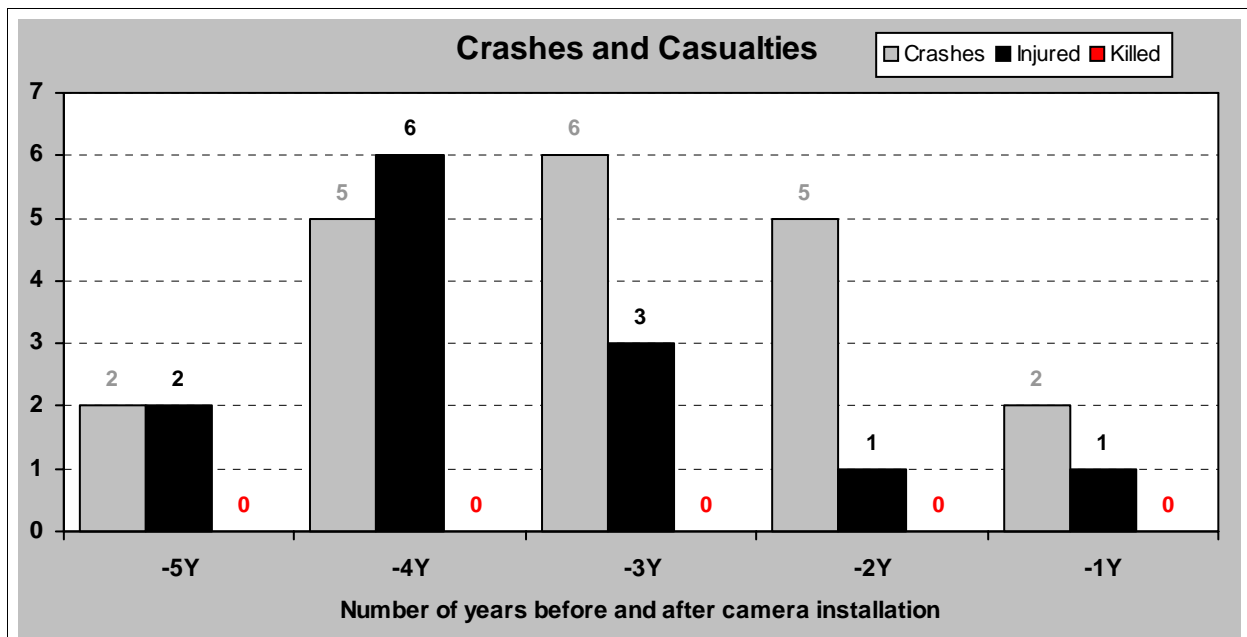
The red-light speed (safety) camera at the intersection of Pacific Highway and Parry Street, Hamilton East commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 20 crashes resulting in 13 injuries and 0 fatalities.

In the 186 day period from installation to the end of 2011, there were 2 crashes resulting in 5 injuries and 0 fatalities.

This represents a 2 per cent reduction in the yearly average number of crashes and a 278 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

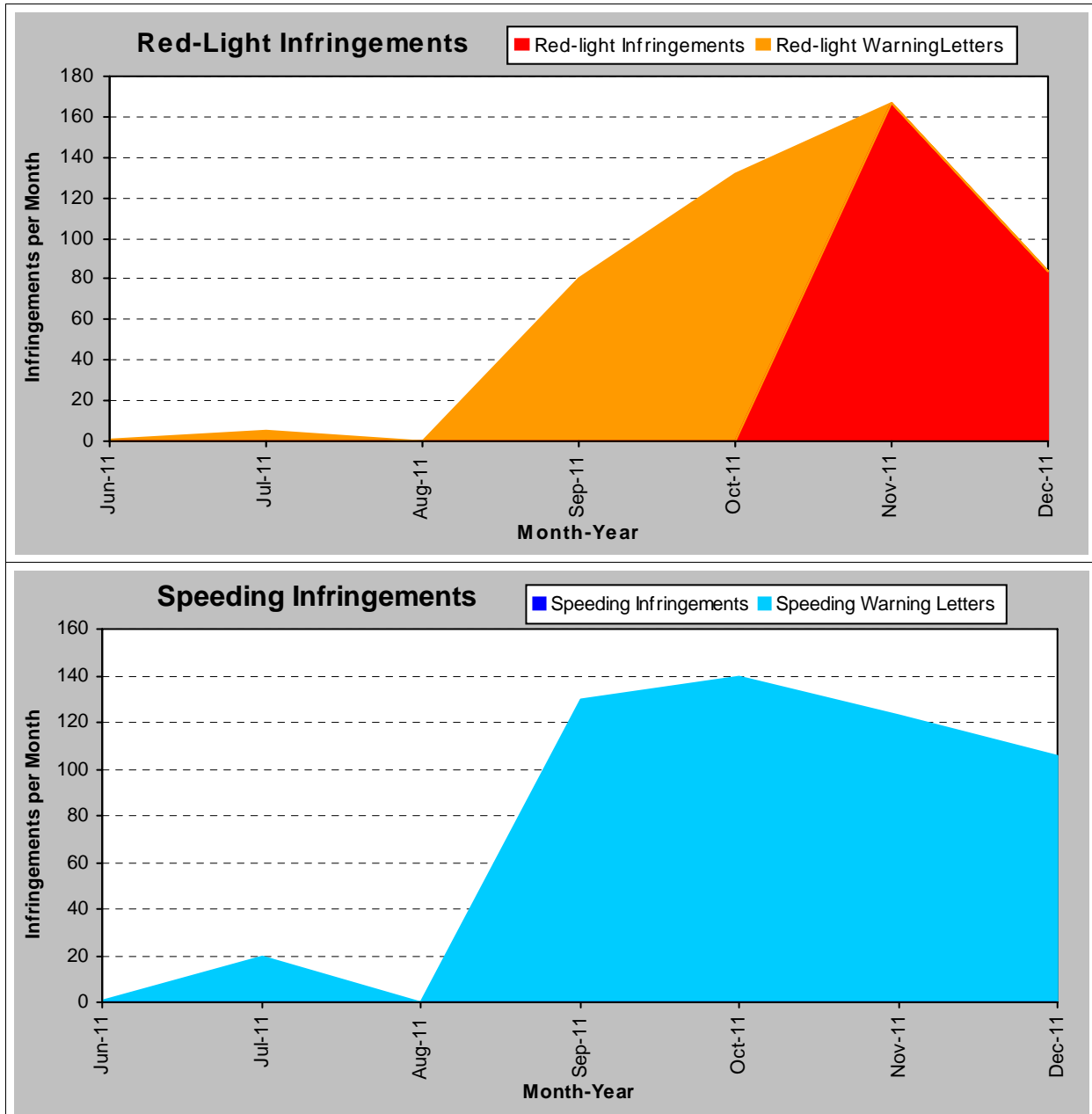




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Arthur St and Centenary Dr, Homebush West

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Arthur St and Centenary Dr, Homebush West commenced issuing warning letters in October 2010. The camera enforces red-light running and speeding offences.

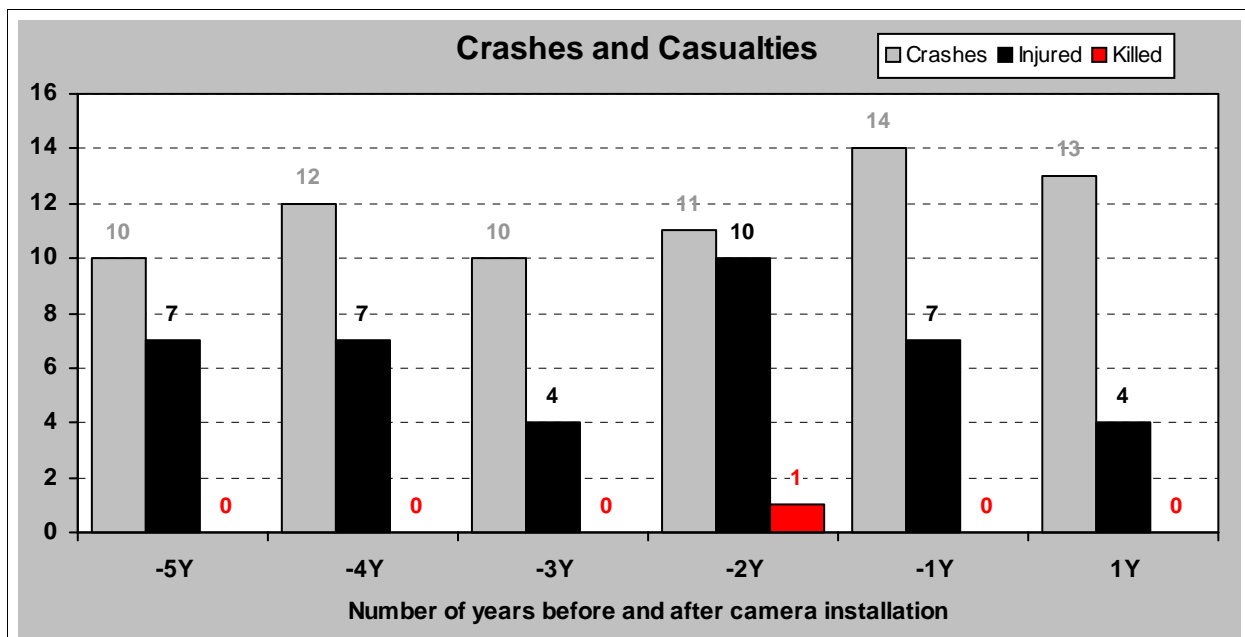
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 57 crashes resulting in 35 injuries and 1 fatality.

In the 431 day period from installation to the end of 2011, there were 16 crashes resulting in 6 injuries and 0 fatalities.

This represents a 19 per cent increase in the yearly average number of crashes and a 29 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

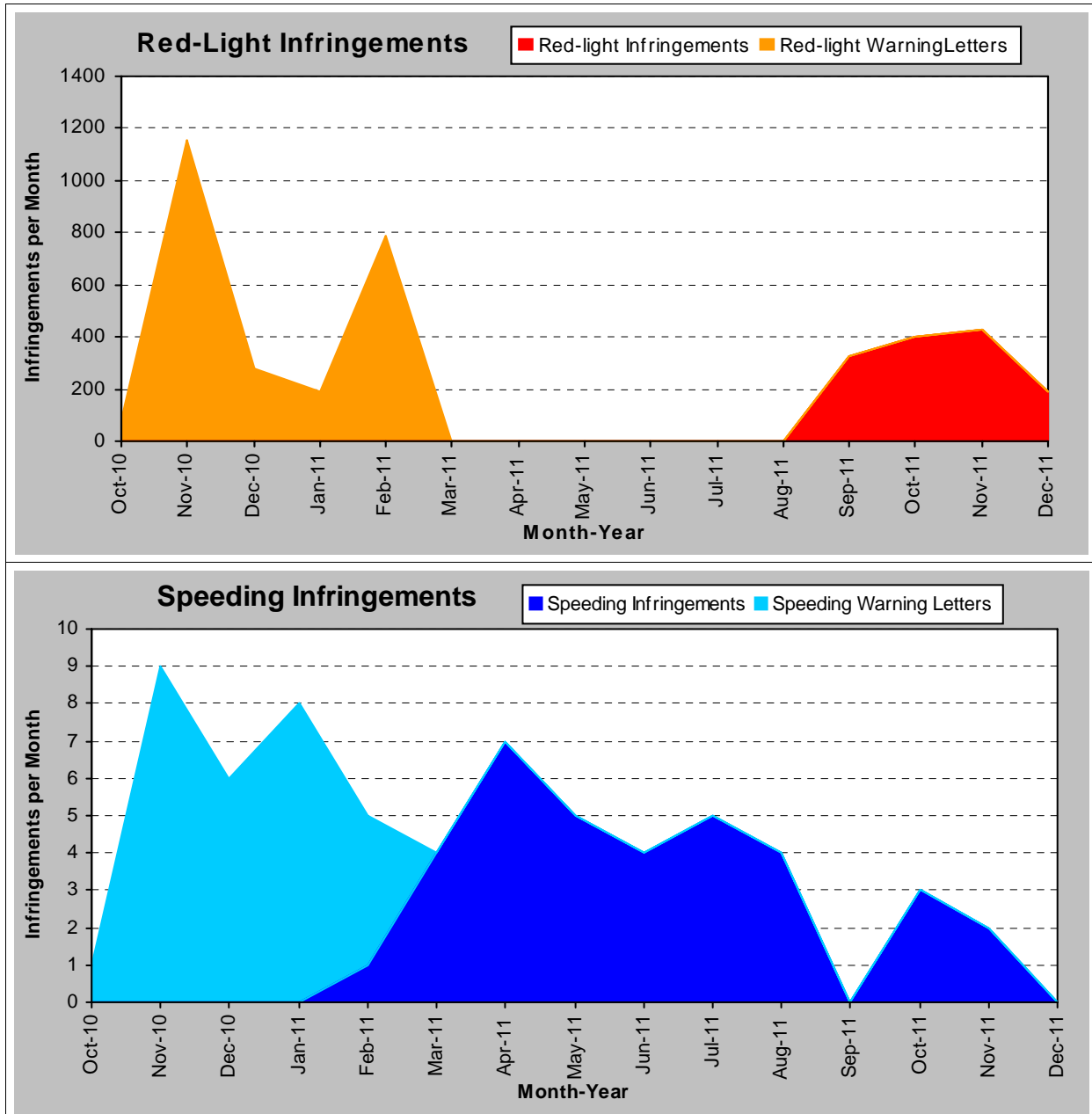
Provisional crash data shows there were 14 crashes resulting in 6 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Ryde Road and Pittwater Road, Hunters Hill

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

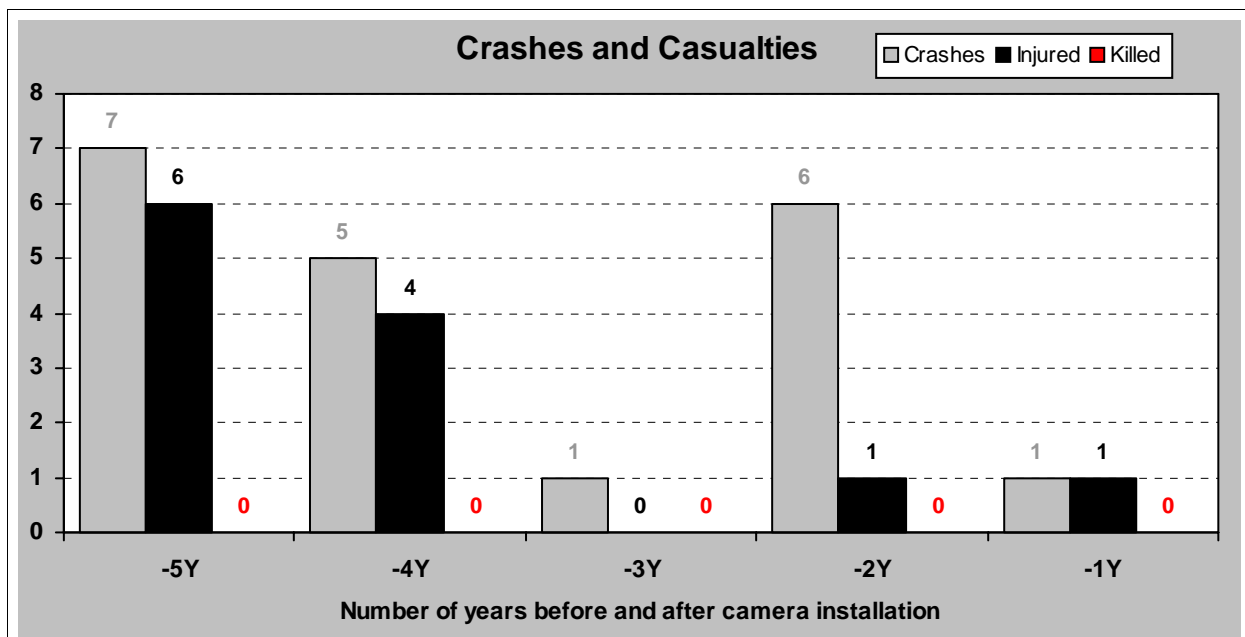
The red-light speed (safety) camera at the intersection of Ryde Road and Pittwater Road, Hunters Hill commenced issuing warning letters in March 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 20 crashes resulting in 12 injuries and 0 fatalities.

In the 289 day period from installation to the end of 2011, there were 3 crashes resulting in 3 injuries and 0 fatalities.

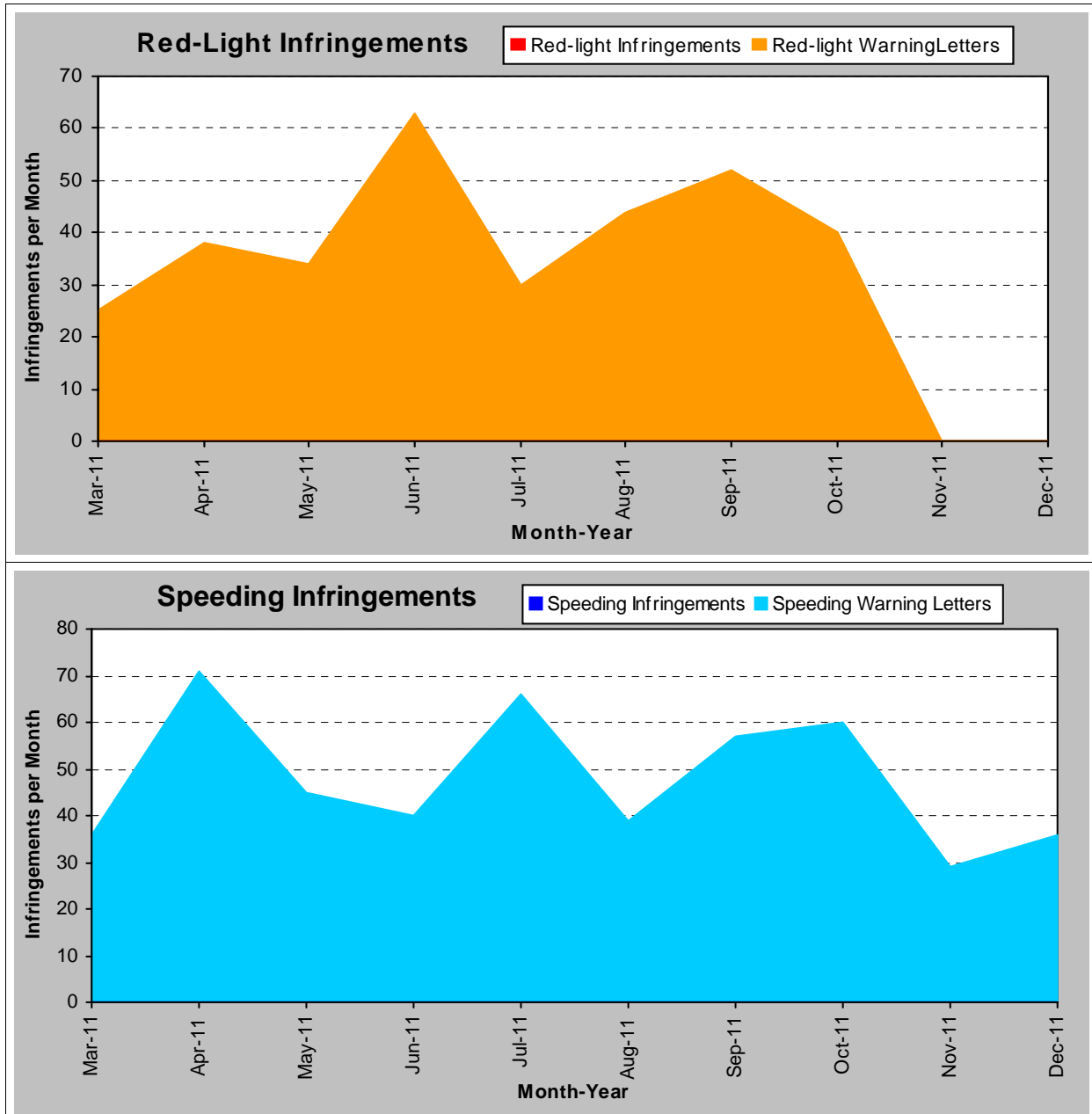
This represents a 5 per cent reduction in the yearly average number of crashes and a 58 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Anzac Parade and Todman Avenue, Kensington

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

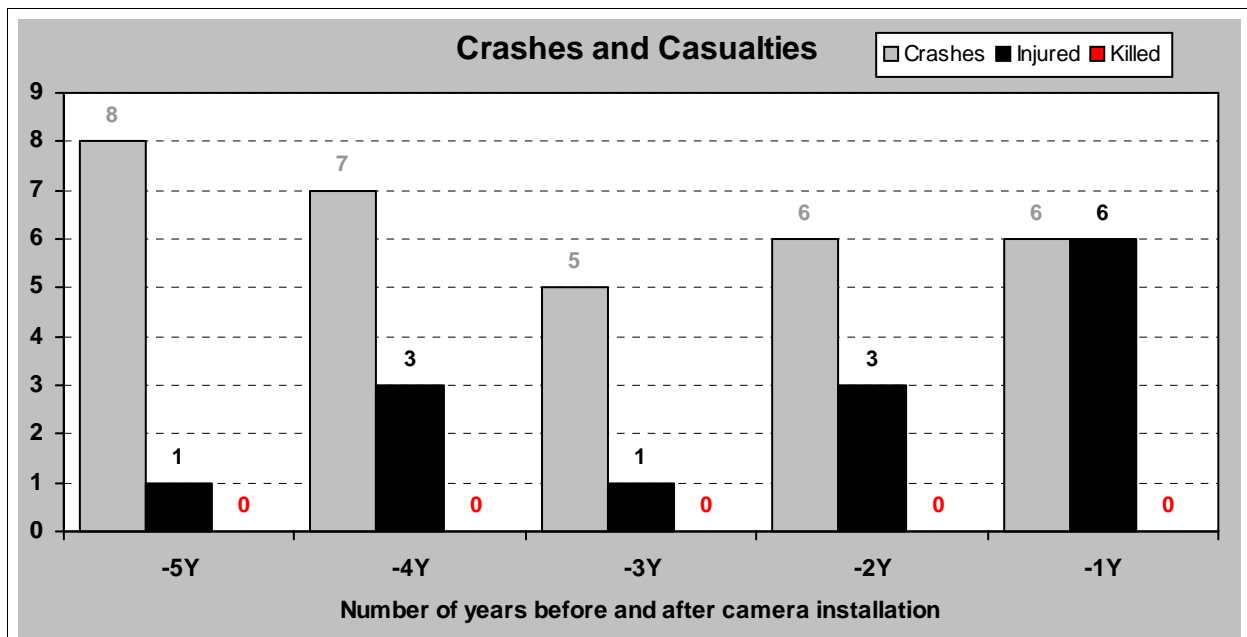
The red-light speed (safety) camera at the intersection of Anzac Parade and Todman Avenue, Kensington commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 32 crashes resulting in 14 injuries and 0 fatalities.

In the 186 day period from installation to the end of 2011, there was 1 crash resulting in 1 injury and 0 fatalities.

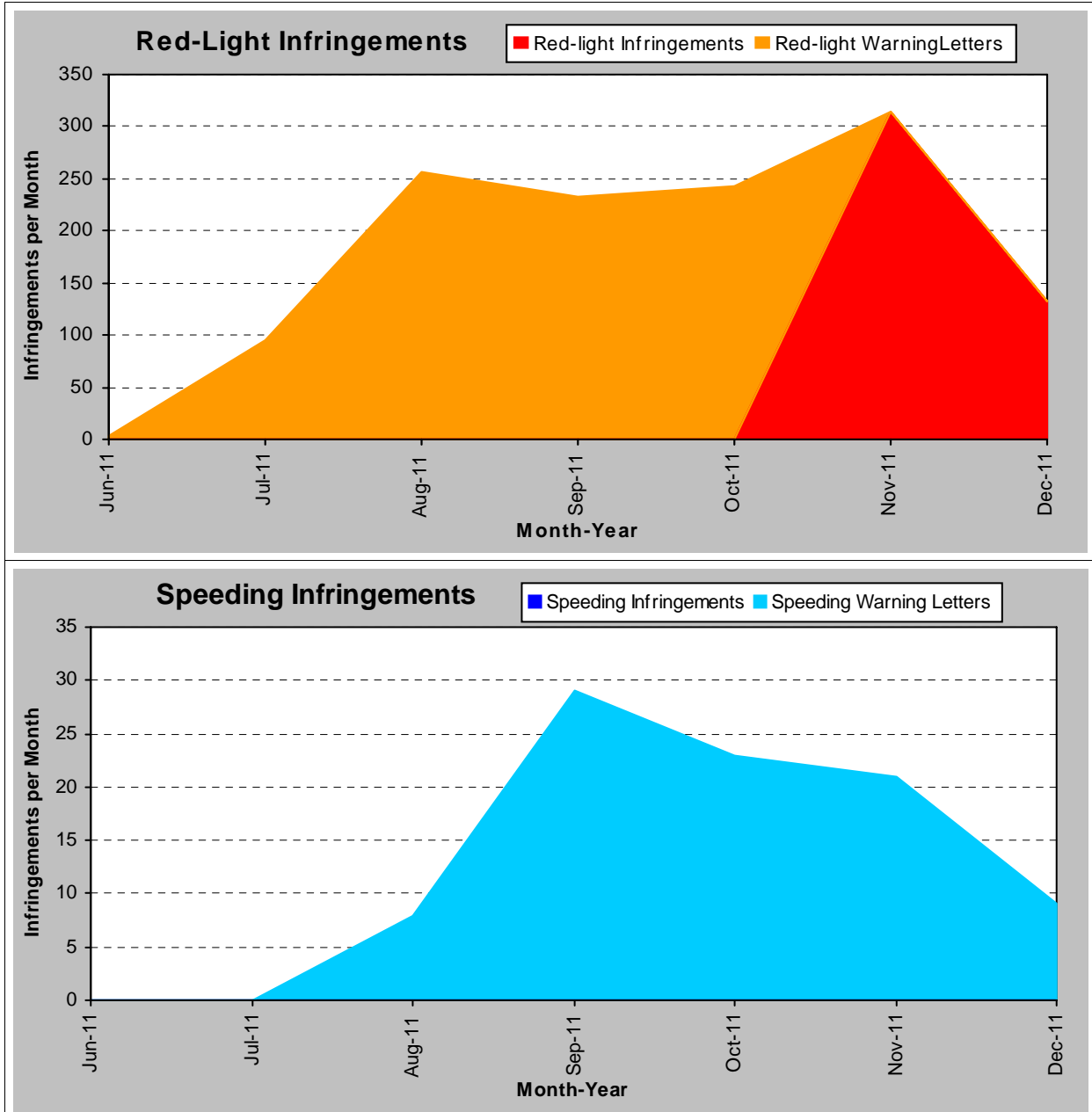
This represents a 69 per cent reduction in the yearly average number of crashes and a 30 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Bexley Road and William Street, Kingsgrove

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

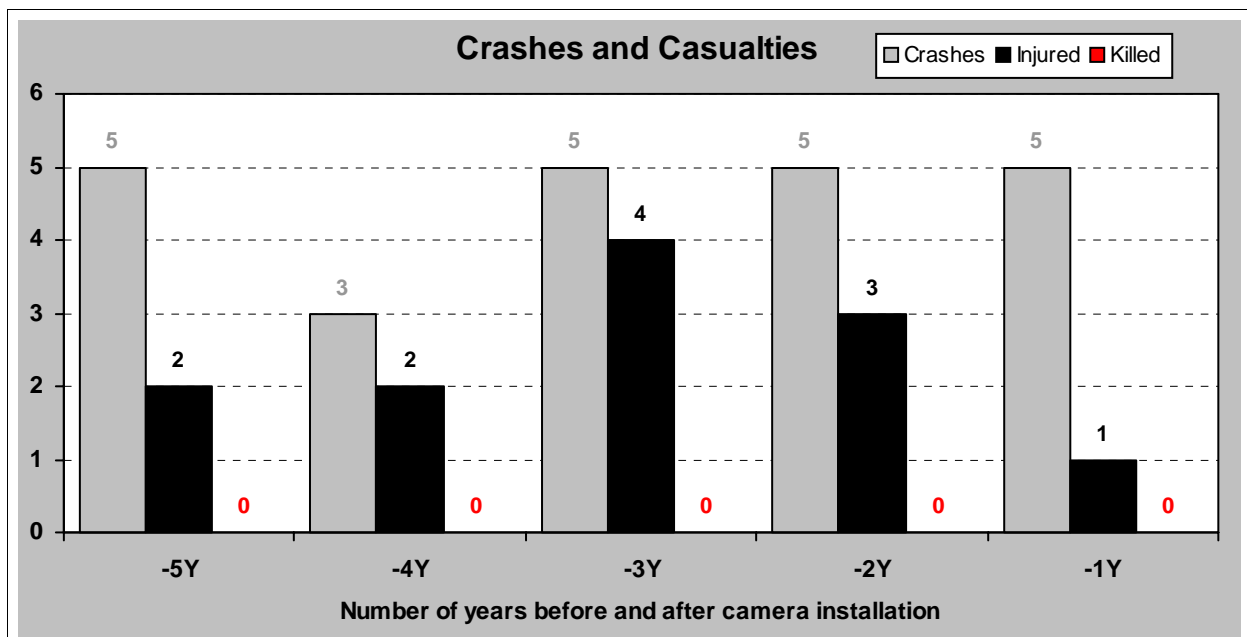
The red-light speed (safety) camera at the intersection of Bexley Road and William Street, Kingsgrove commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 23 crashes resulting in 12 injuries and 0 fatalities.

In the 265 day period from installation to the end of 2011, there were 2 crashes resulting in 2 injuries and 0 fatalities.

This represents a 40 per cent reduction in the yearly average number of crashes and a 15 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

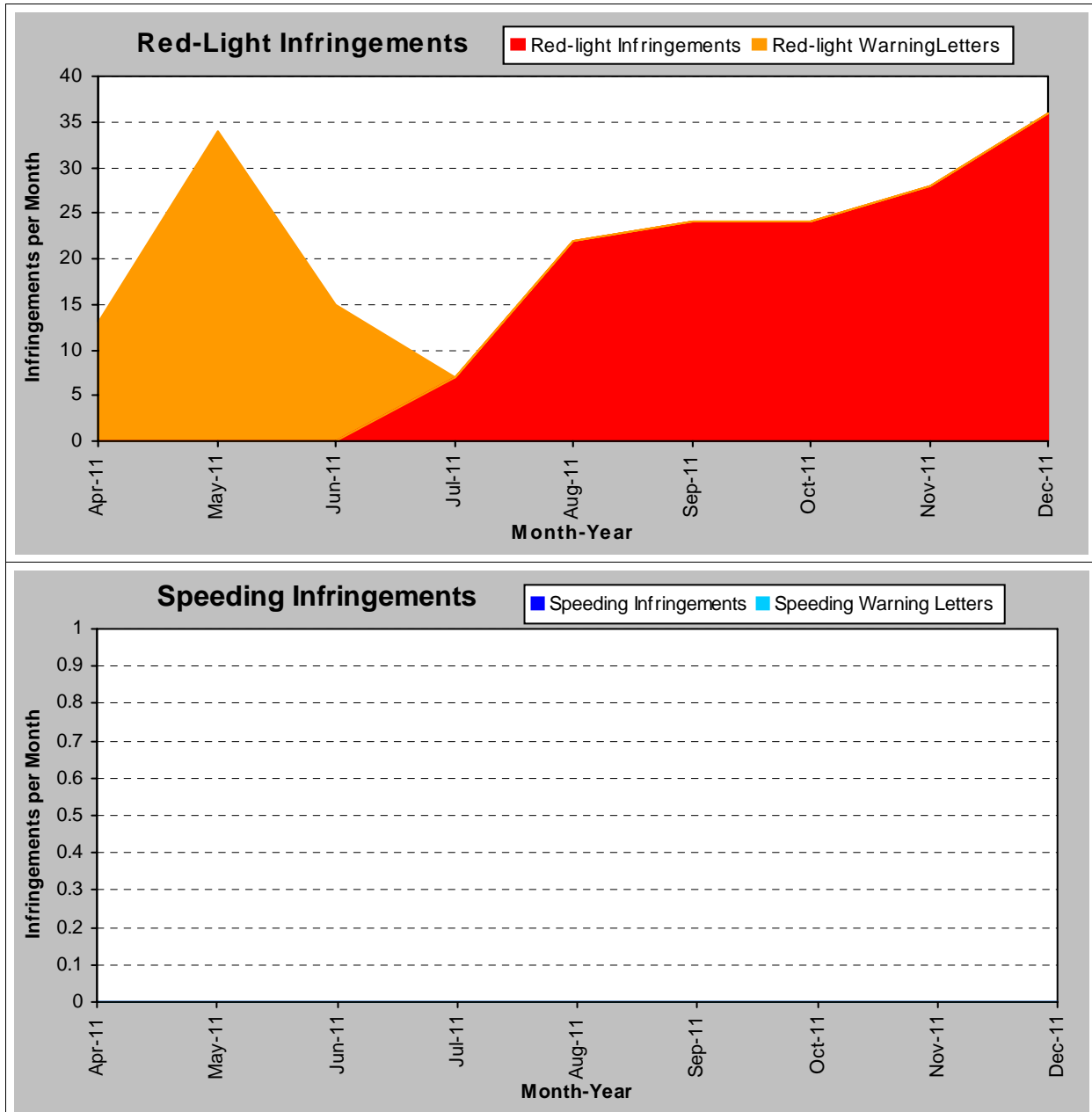




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Acacia Road and President Avenue, Kirrawee

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

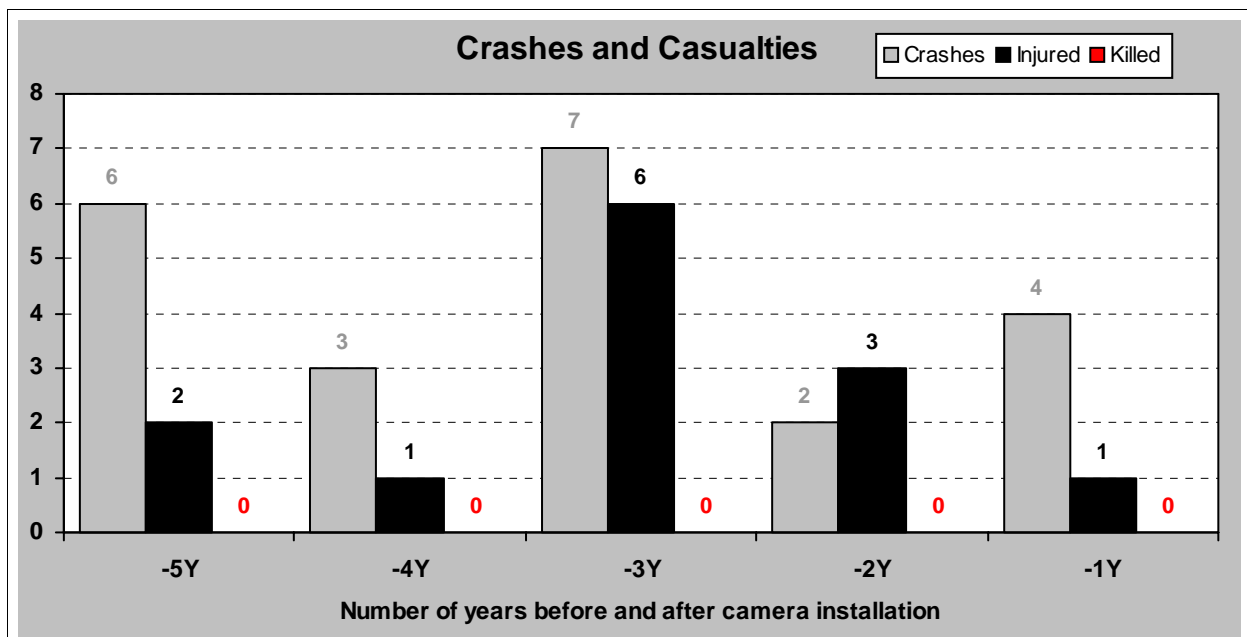
The red-light speed (safety) camera at the intersection of Acacia Road and President Avenue, Kirrawee commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 22 crashes resulting in 13 injuries and 0 fatalities.

In the 188 day period from installation to the end of 2011, there was 1 crash resulting in 0 injuries and 0 fatalities.

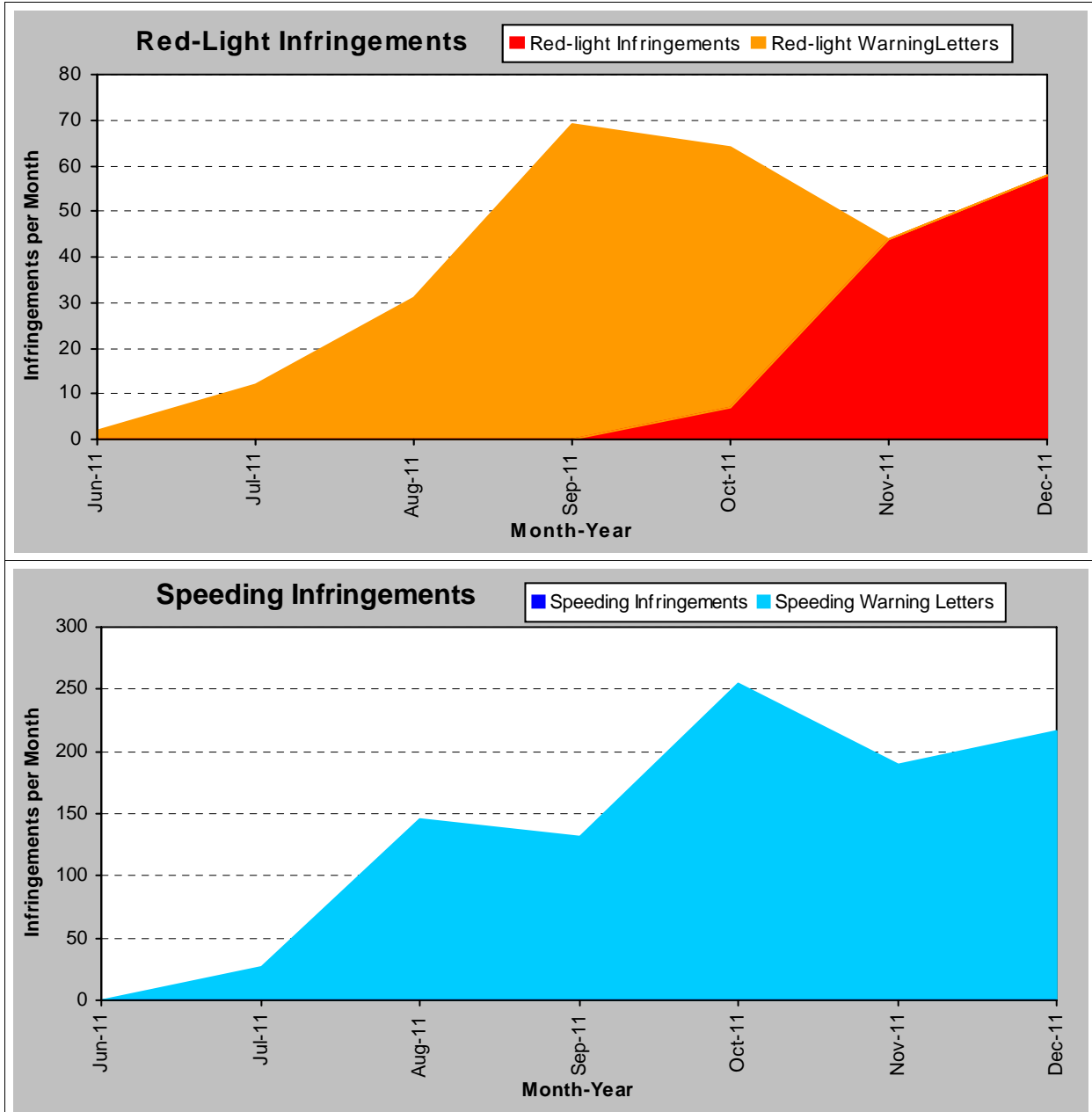
This represents a 56 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Park Road and Princes Highway, Kogarah Bay

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

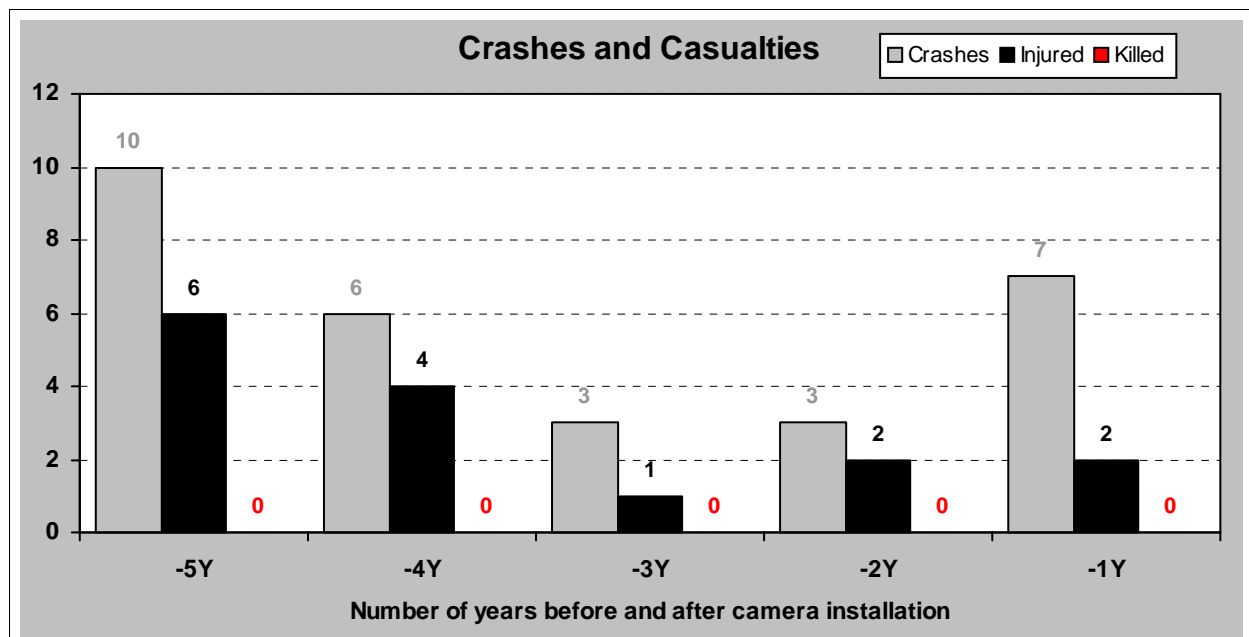
The red-light speed (safety) camera at the intersection of Park Road and Princes Highway, Kogarah Bay commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 29 crashes resulting in 15 injuries and 0 fatalities.

In the 200 day period from installation to the end of 2011, there were 0 crashes resulting in 0 injuries and 0 fatalities.

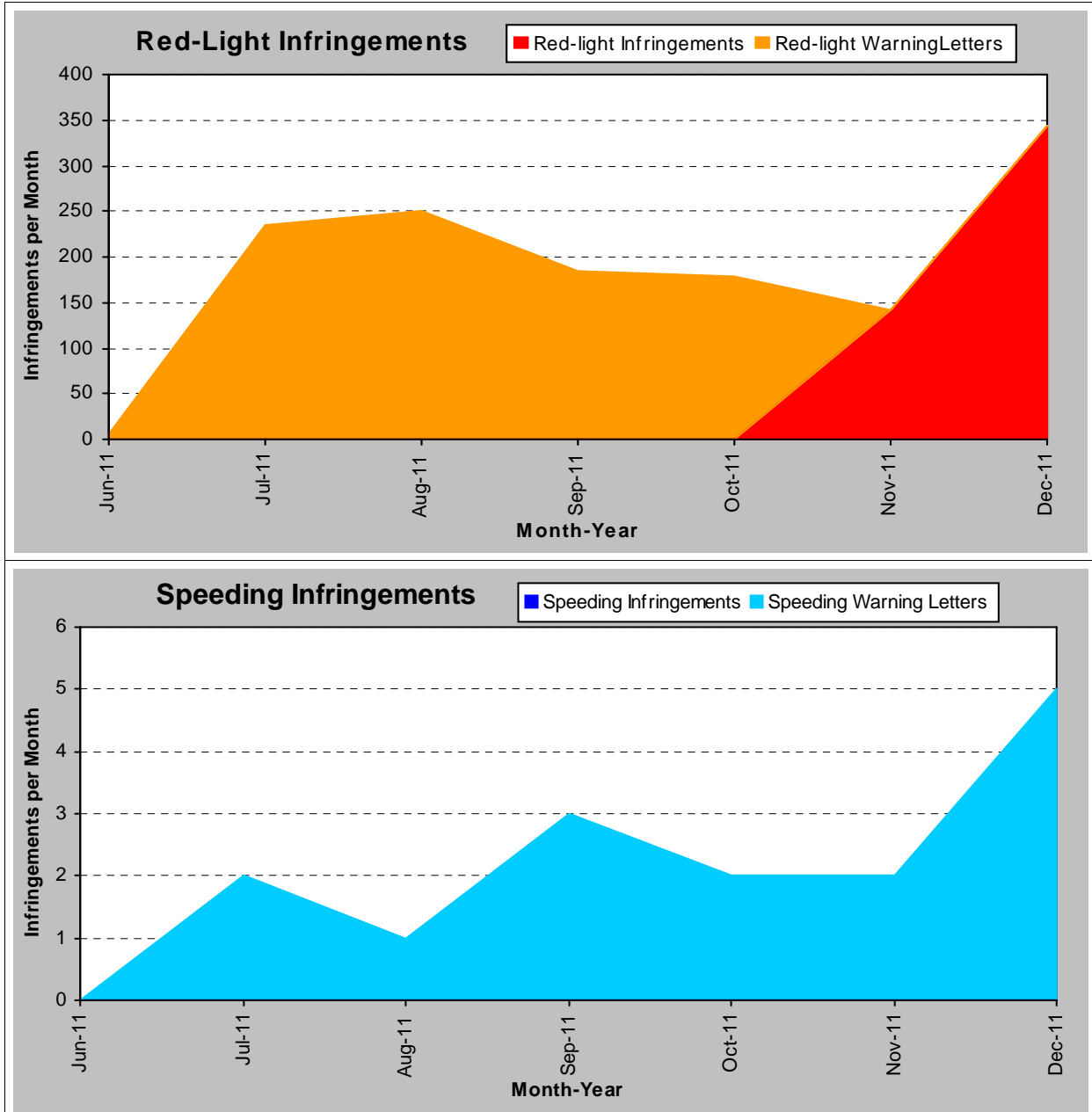
This represents a 100 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Griffiths Road and Turton Road, Lambton

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

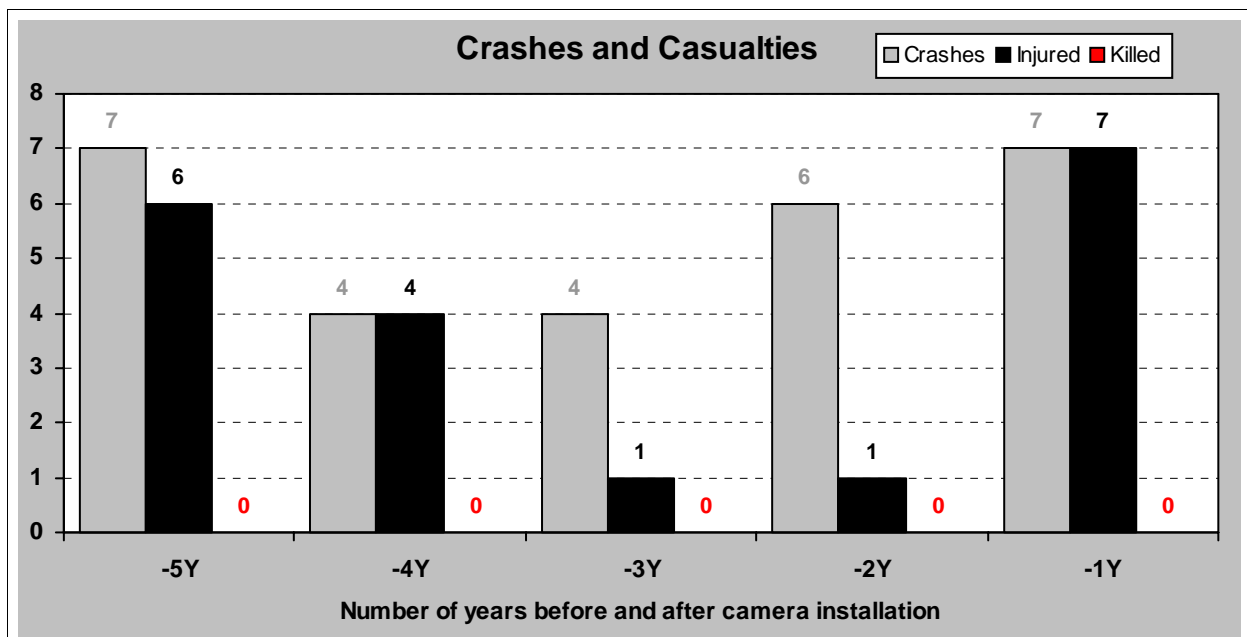
The red-light speed (safety) camera at the intersection of Griffiths Road and Turton Road, Lambton commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 28 crashes resulting in 19 injuries and 0 fatalities.

In the 213 day period from installation to the end of 2011, there was 1 crash resulting in 1 injury and 0 fatalities.

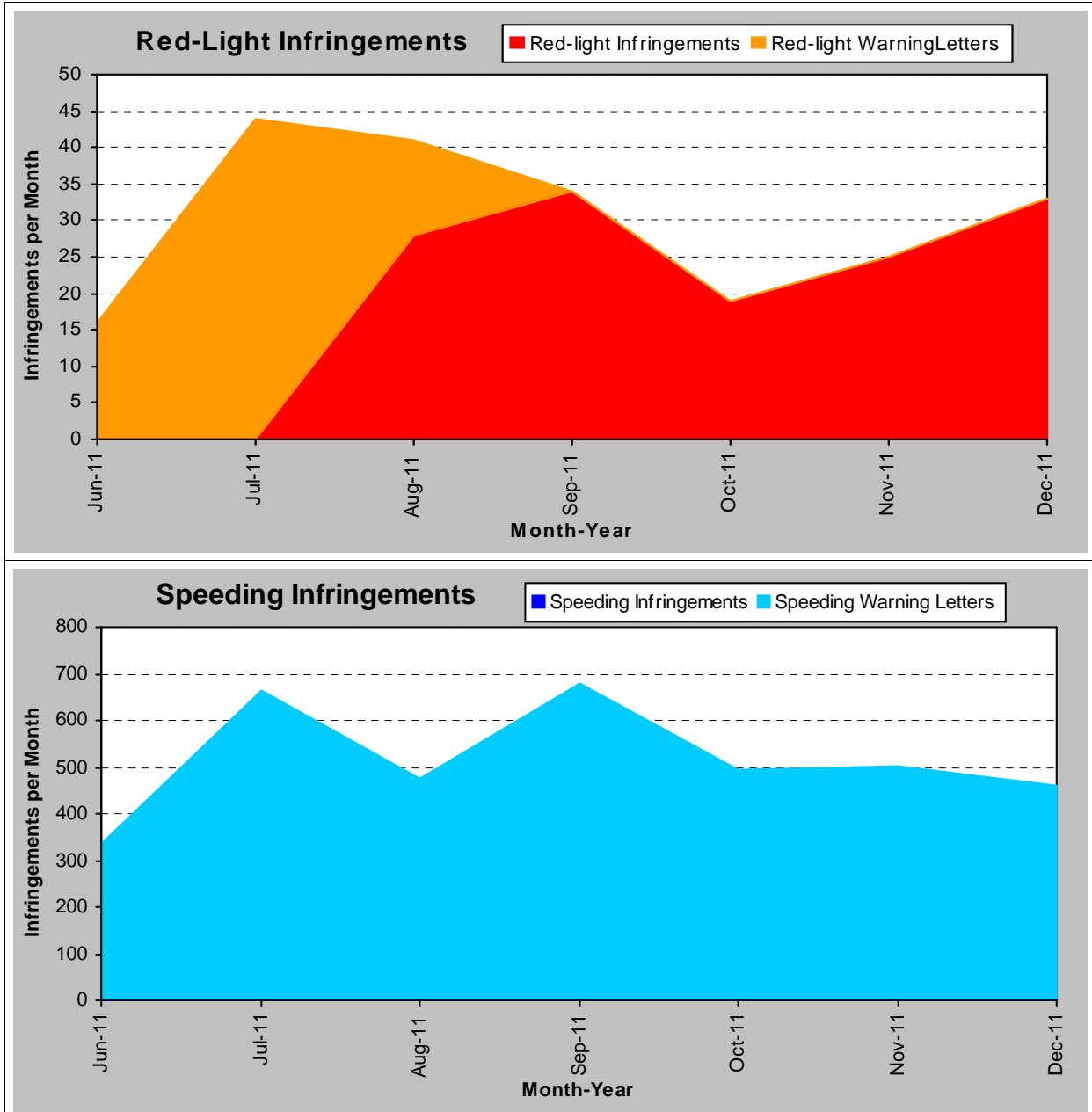
This represents a 69 per cent reduction in the yearly average number of crashes and a 55 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Henry Lawsons Drive / Woodville Rd and Hume Hwy, Lansdowne / Villawood

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Woodville Rd and Hume Hwy, Villawood commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Henry Lawsons Drive and Hume Hwy, Lansdowne commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

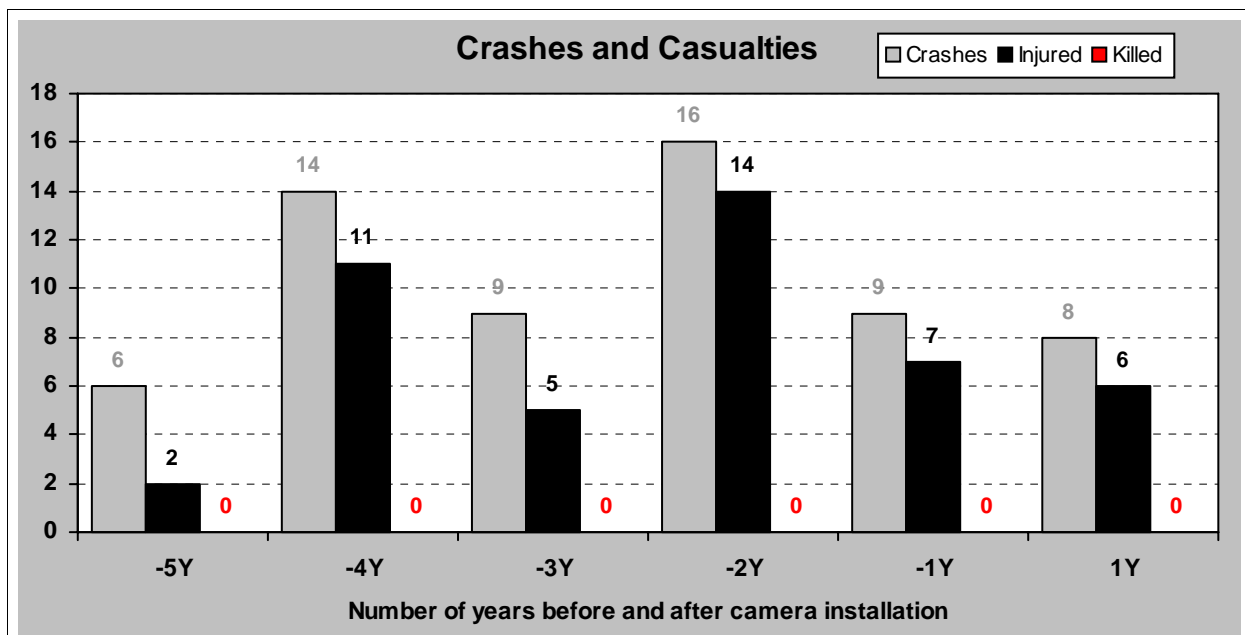
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 54 crashes resulting in 39 injuries and 0 fatalities.

In the 506 day period from installation to the end of 2011, there were 12 crashes resulting in 8 injuries and 0 fatalities.

This represents a 20 per cent reduction in the yearly average number of crashes and a 26 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 9 crashes resulting in 6 casualties at this intersection in 2011.

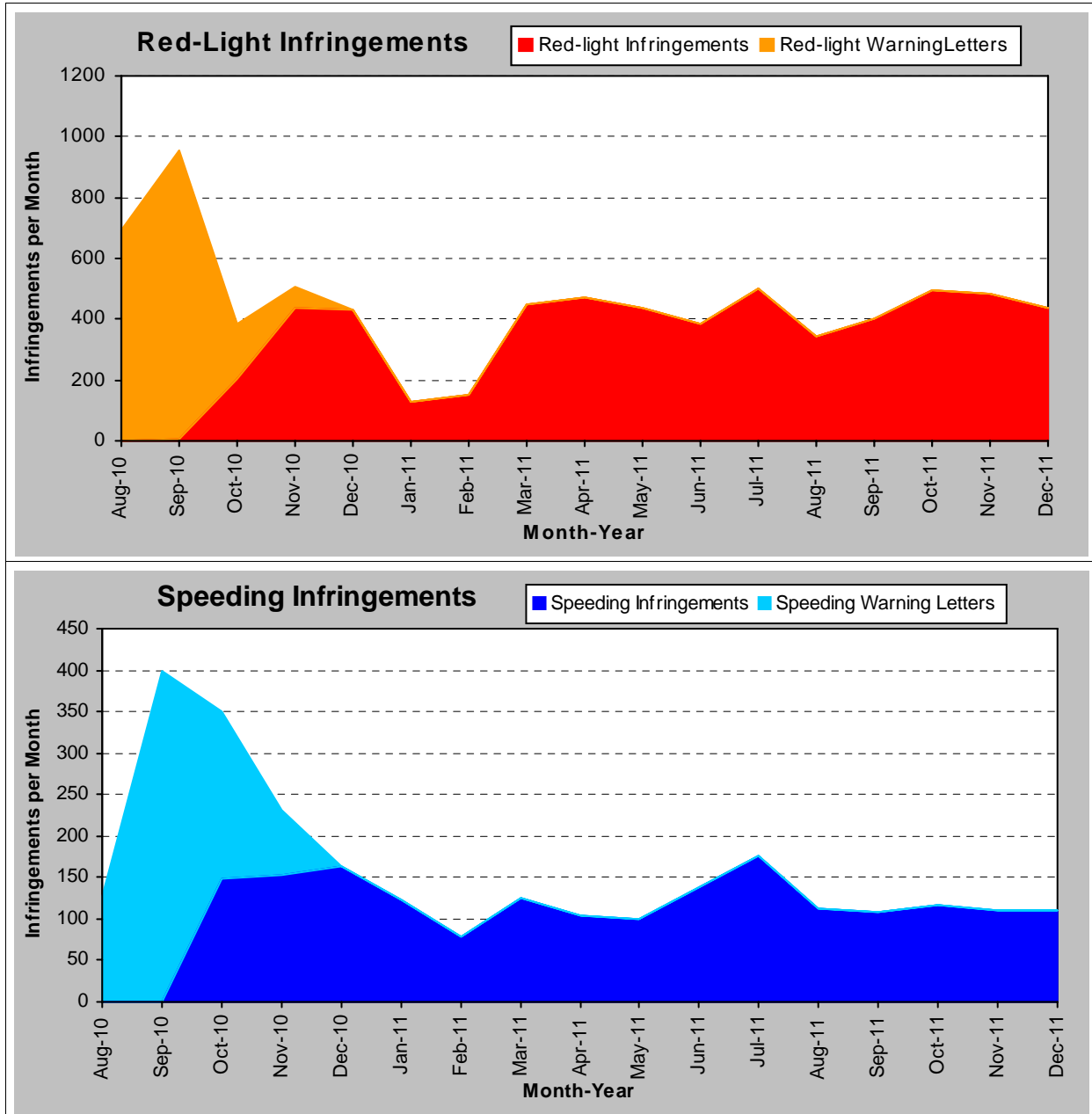




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Parramatta Rd and West St, Leichhardt

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Parramatta Rd and West St, Leichhardt commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

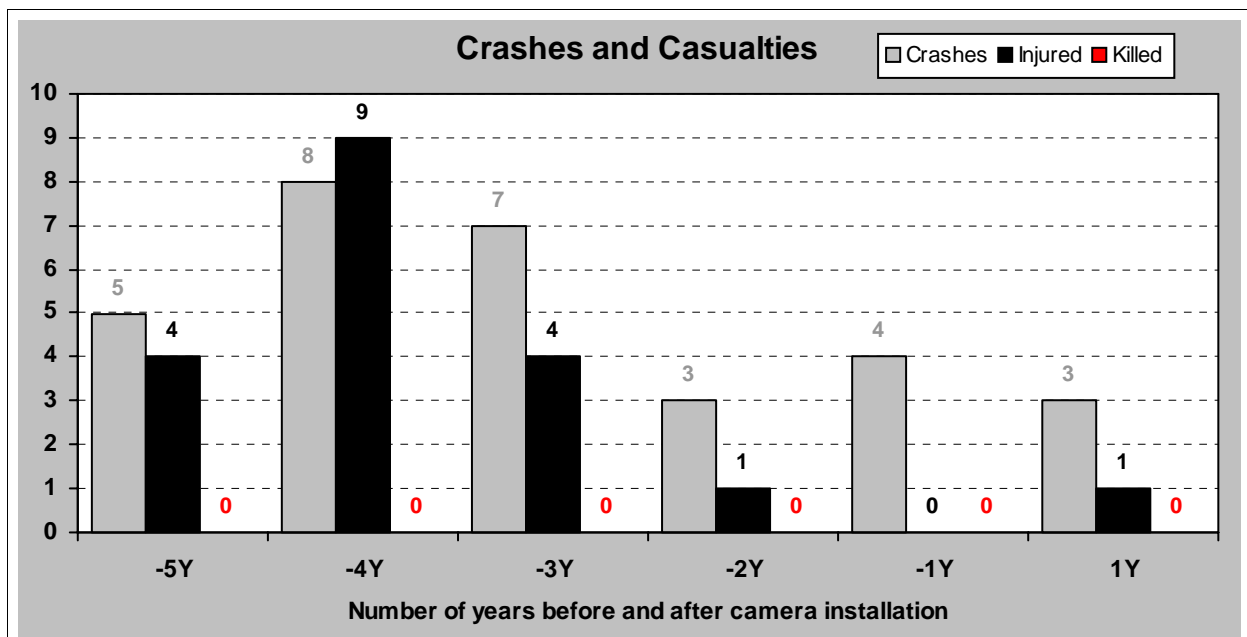
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 27 crashes resulting in 18 injuries and 0 fatalities.

In the 465 day period from installation to the end of 2011, there were 4 crashes resulting in 2 injuries and 0 fatalities.

This represents a 42 per cent reduction in the yearly average number of crashes and a 56 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

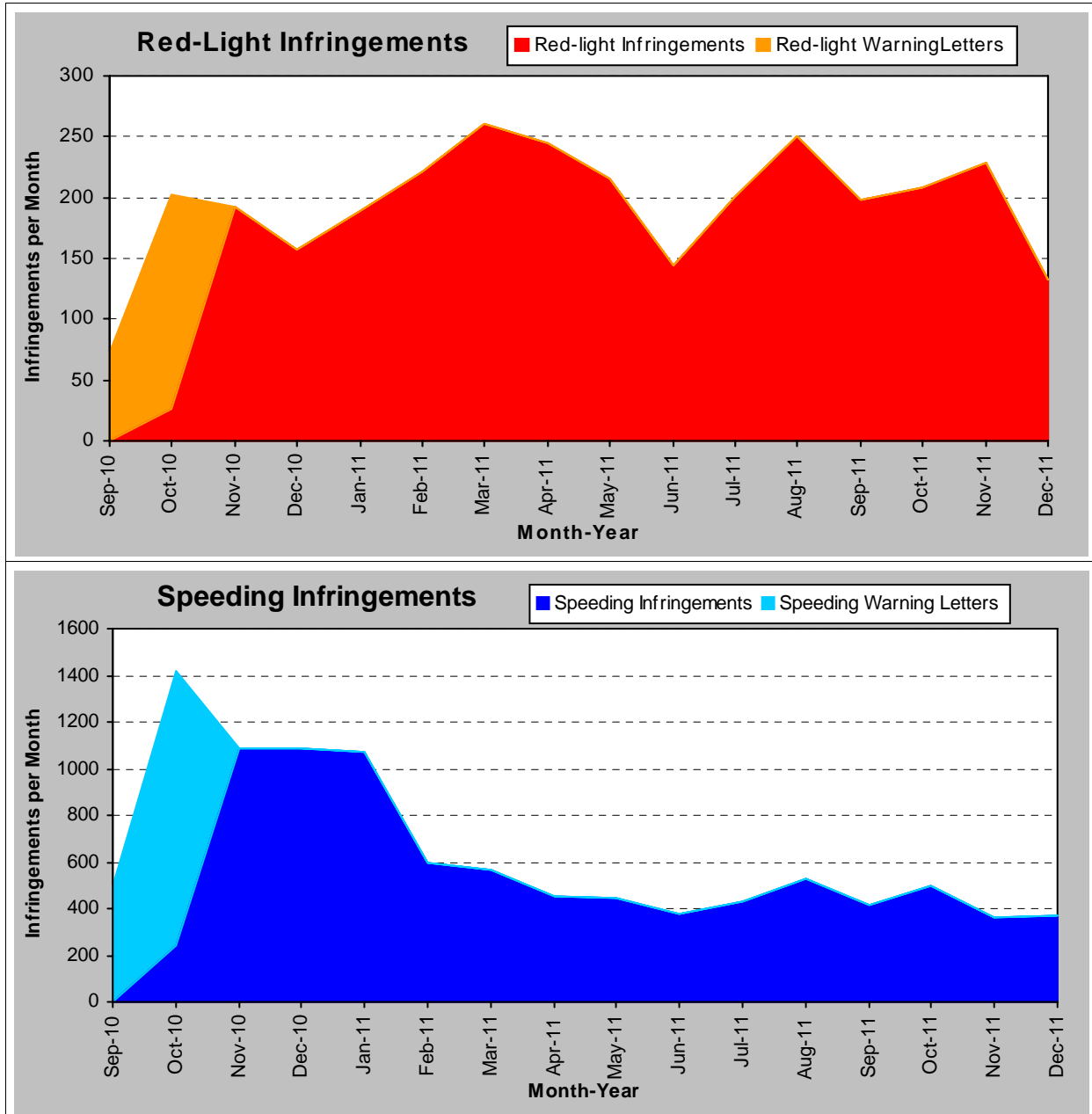
Provisional crash data shows there were 3 crashes resulting in one casualty at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Olympic Dr and Vaughan St, Lidcombe

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Olympic Dr and Vaughan St, Lidcombe commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

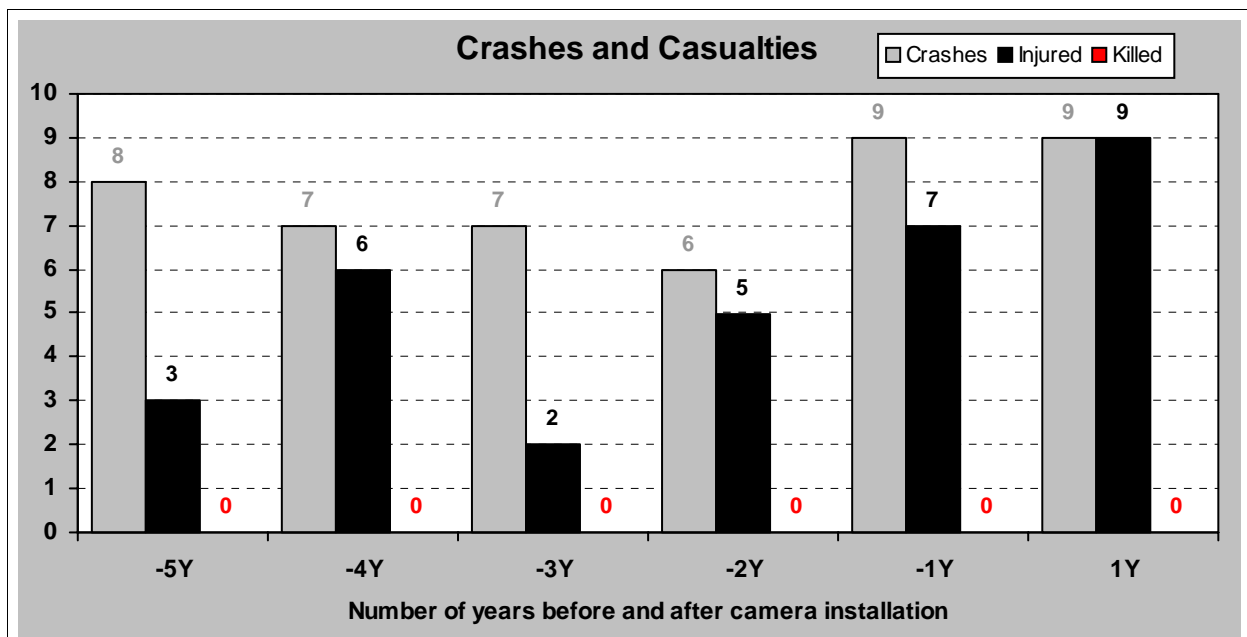
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 37 crashes resulting in 23 injuries and 0 fatalities.

In the 475 day period from installation to the end of 2011, there were 11 crashes resulting in 10 injuries and 0 fatalities.

This represents a 14 per cent increase in the yearly average number of crashes and a 67 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

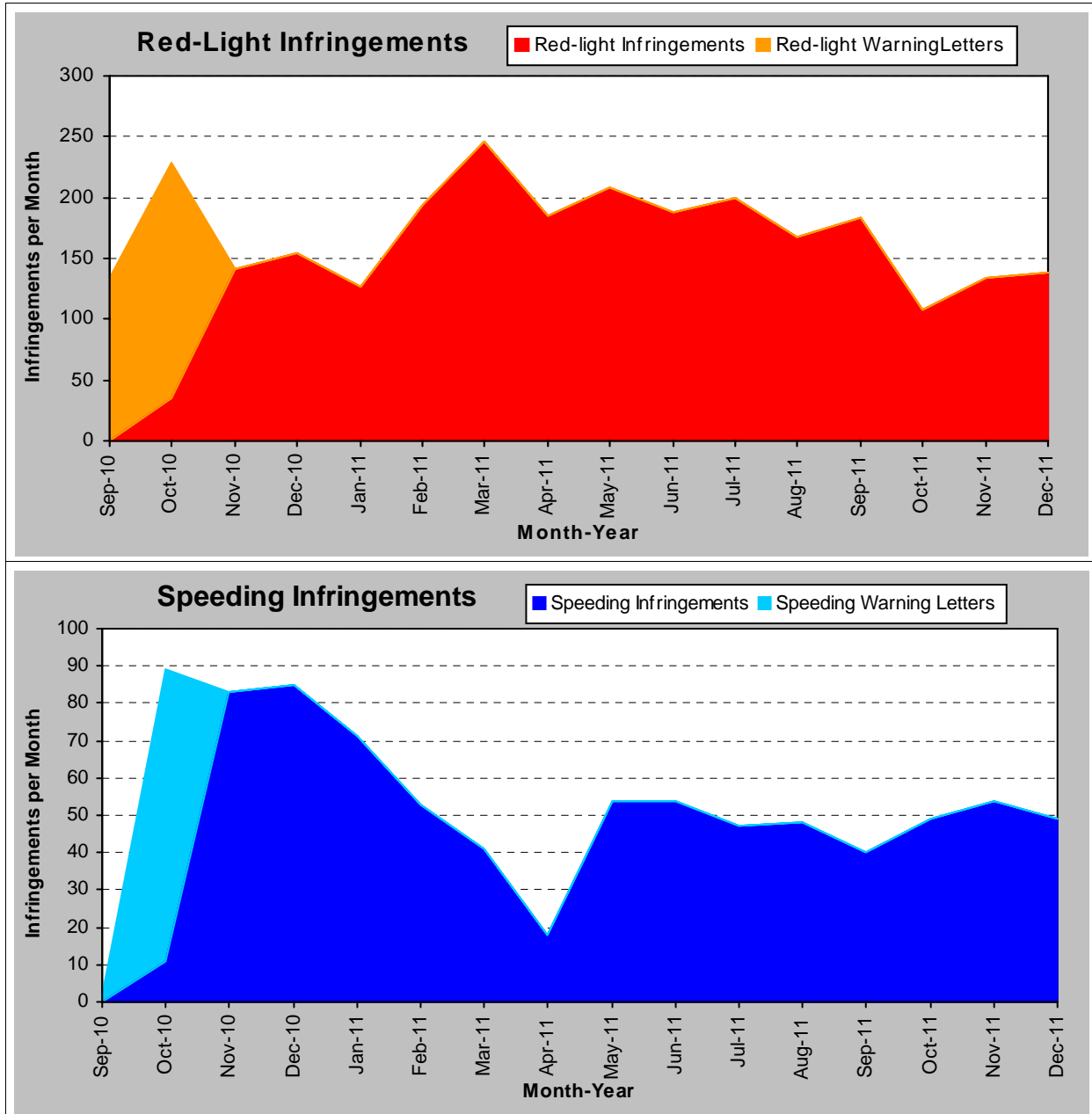
Provisional crash data shows there were 7 crashes resulting in 8 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Copeland St and Elizabeth Dr, Liverpool

There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Copeland St and Elizabeth Dr, Liverpool commenced issuing warning letters in October 2010. The camera enforces red-light running and speeding offences.

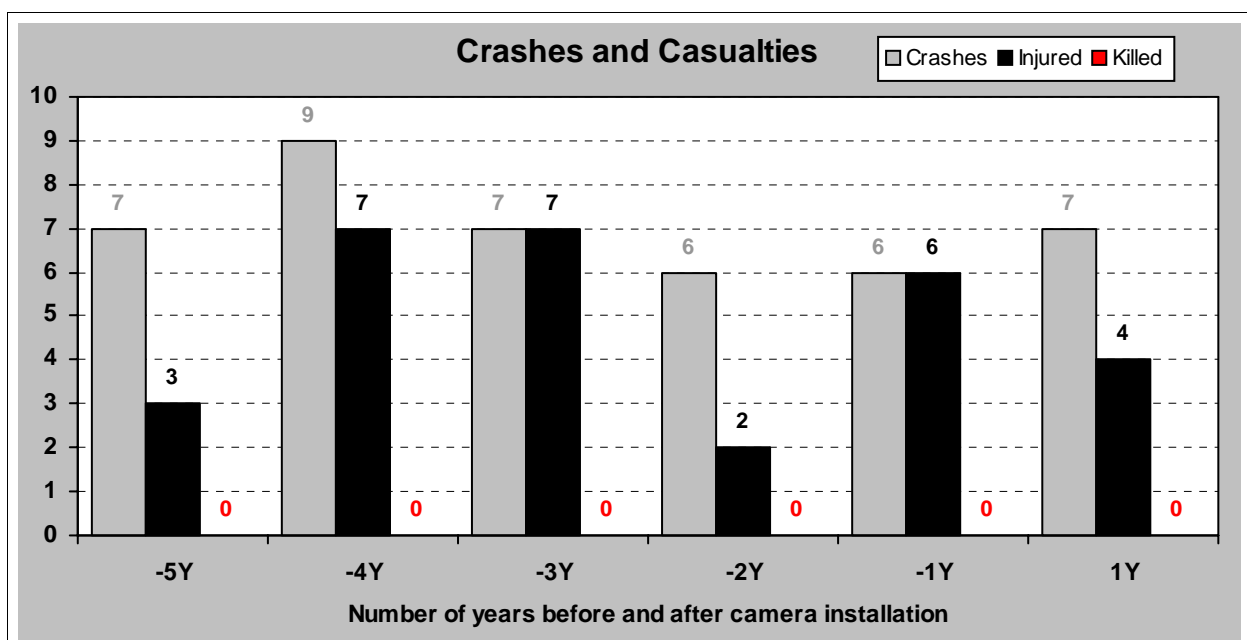
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 35 crashes resulting in 25 injuries and 0 fatalities.

In the 444 day period from installation to the end of 2011, there were 8 crashes resulting in 5 injuries and 0 fatalities.

This represents a 6 per cent reduction in the yearly average number of crashes and an 18 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

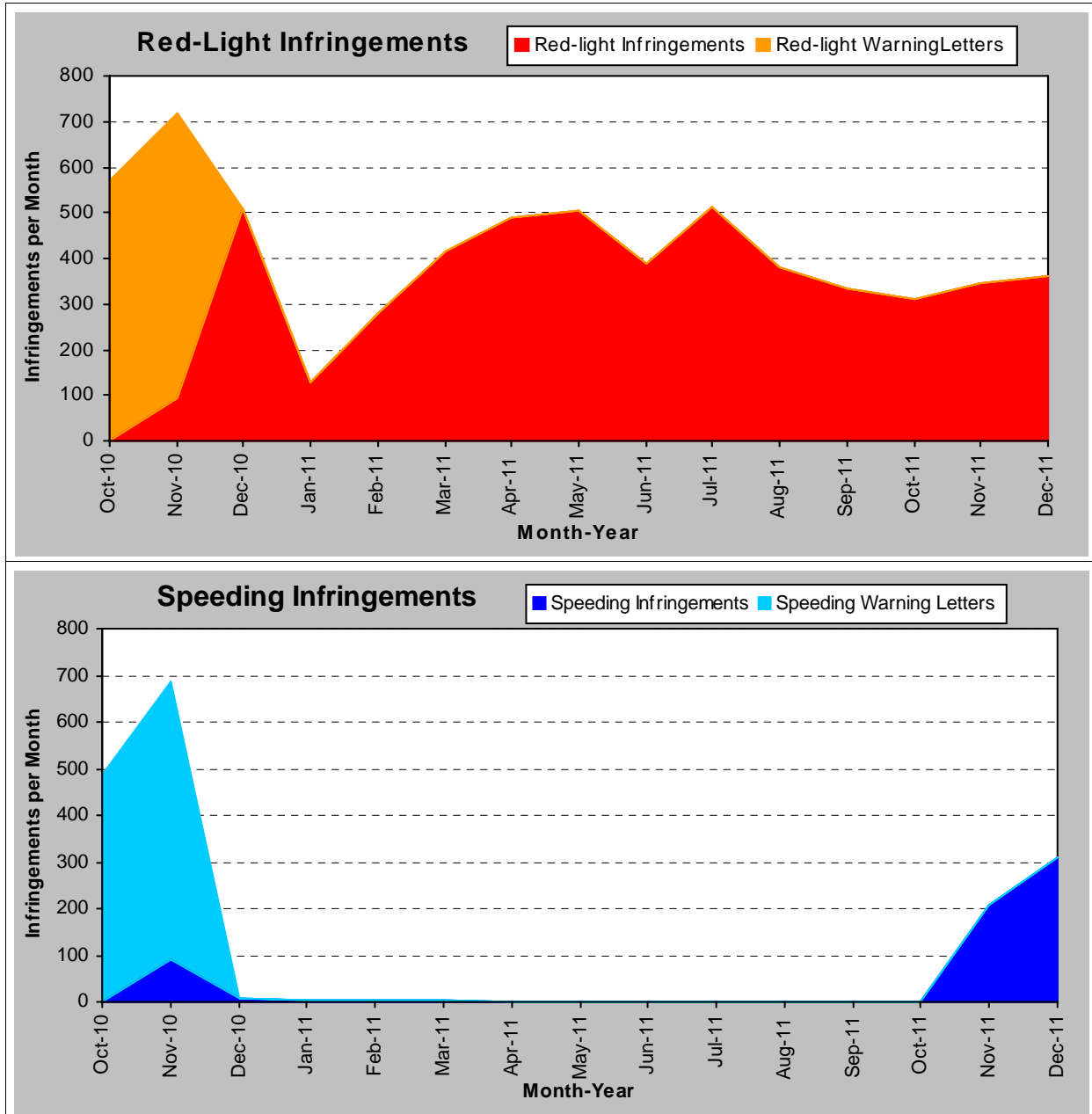
Provisional crash data shows there were 7 crashes resulting in 5 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Sydenham Road and Victoria Road, Marrickville

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

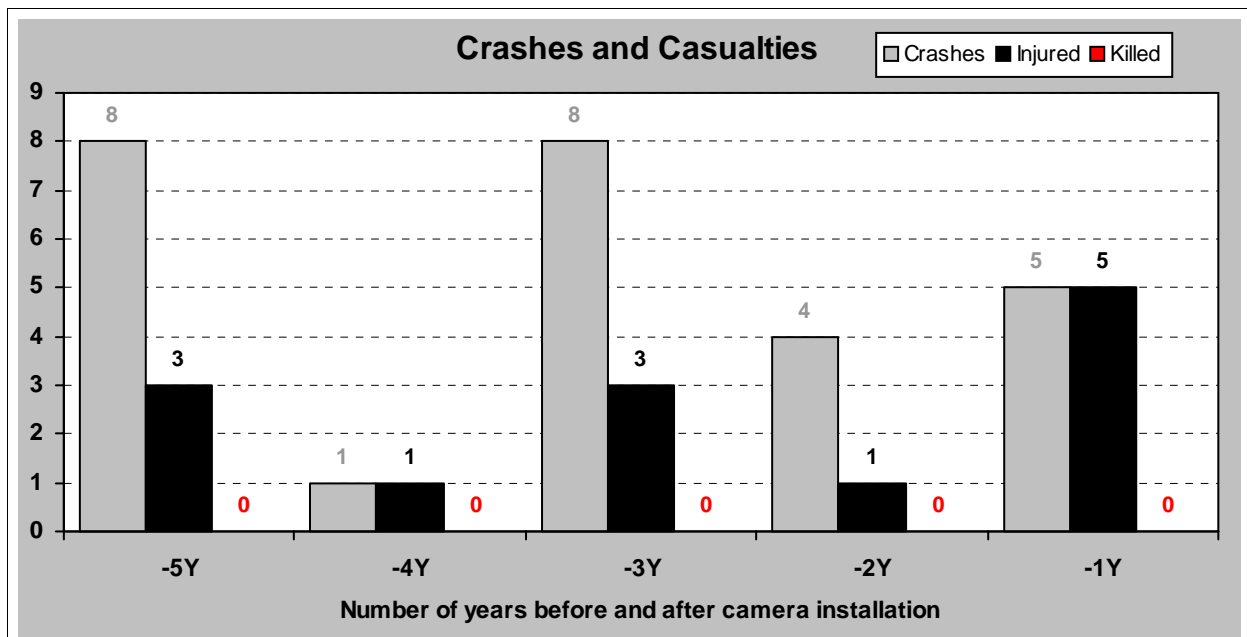
The red-light speed (safety) camera at the intersection of Sydenham Road and Victoria Road, Marrickville commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 26 crashes resulting in 13 injuries and 0 fatalities.

In the 200 day period from installation to the end of 2011, there was 1 crash resulting in 0 injuries and 0 fatalities.

This represents a 65 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

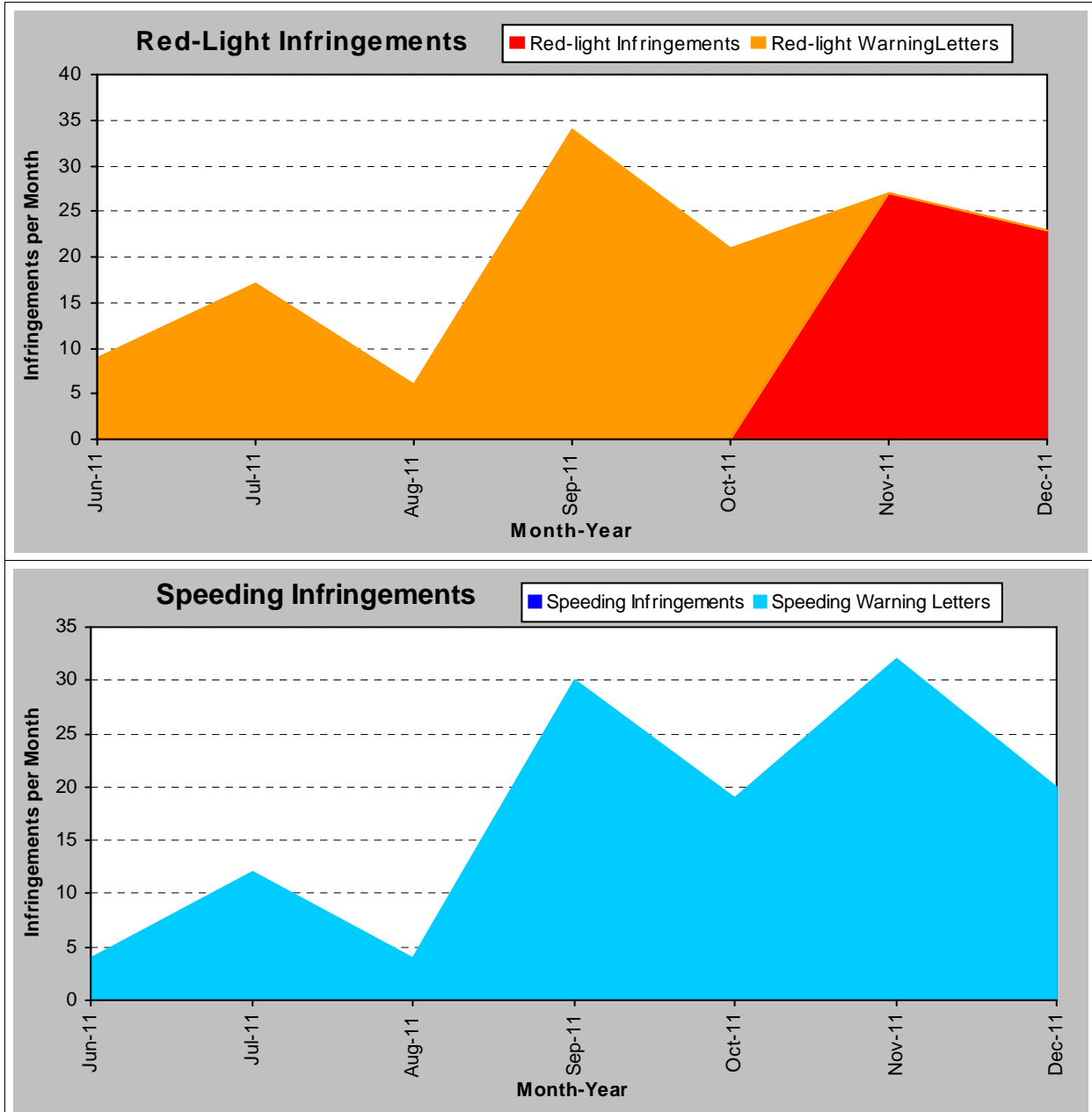




### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: O'Riordan St and Gardeners Rd, Mascot

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of O'Riordan St and Gardeners Rd, Mascot commenced issuing warning letters in October 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

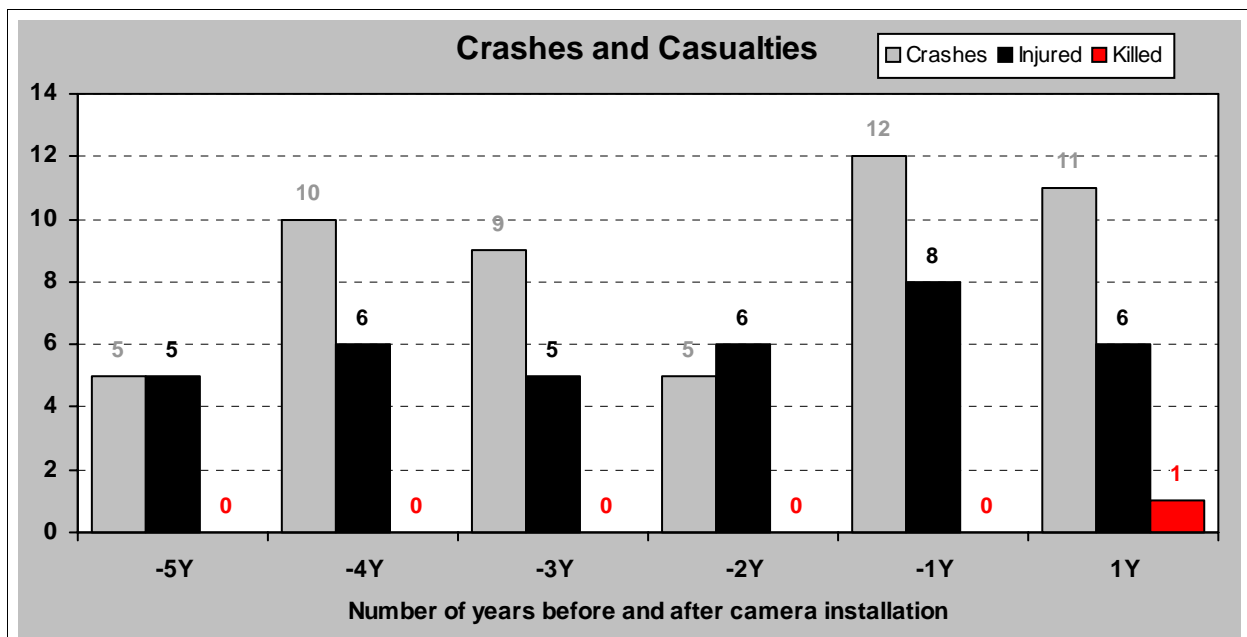
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 41 crashes resulting in 30 injuries and 0 fatalities.

In the 430 day period from installation to the end of 2011, there were 13 crashes resulting in 7 injuries and 1 fatality.

This represents a 35 per cent increase in the yearly average number of crashes and a 13 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

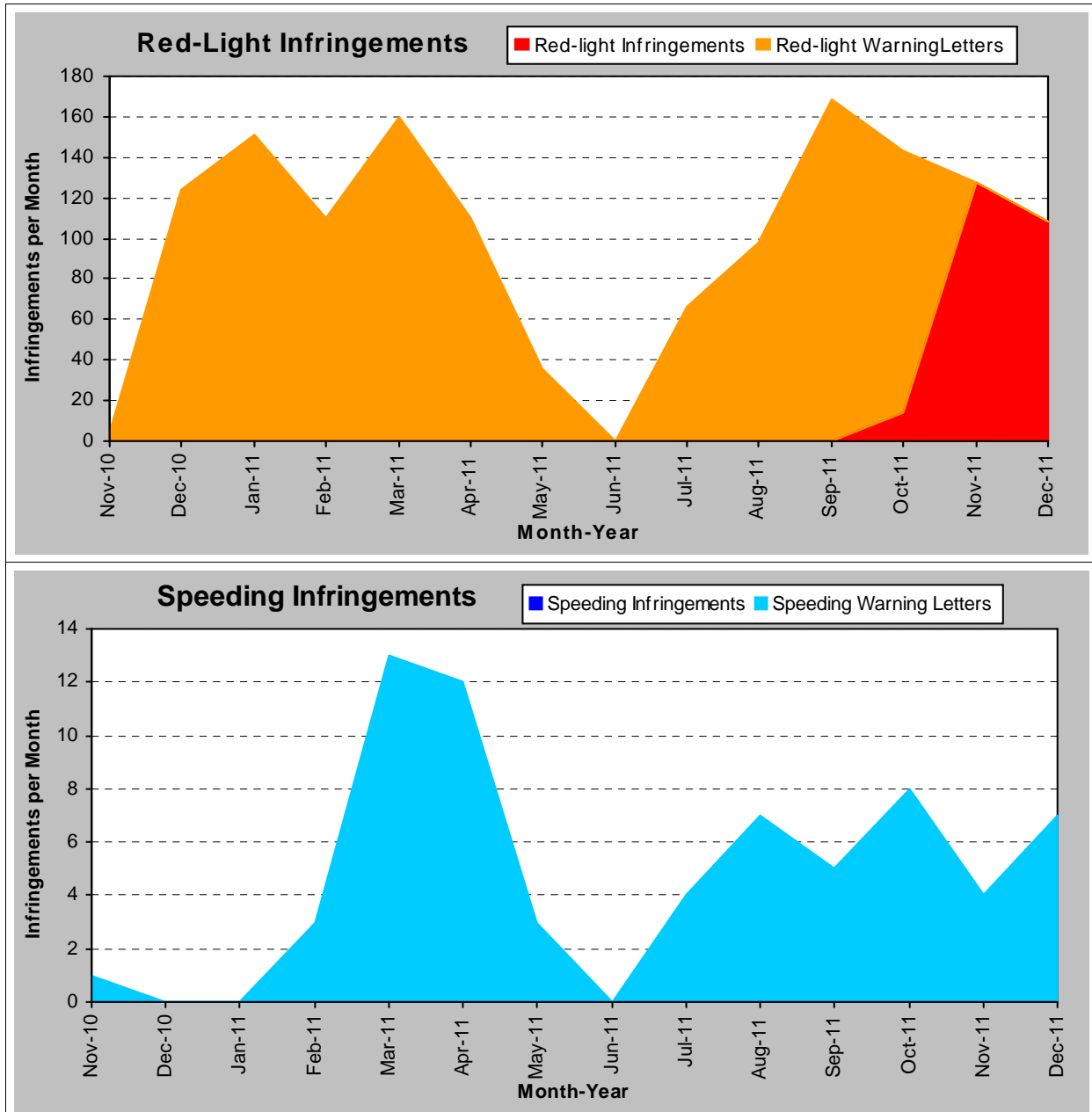
Provisional crash data shows there were 11 crashes resulting in 7 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: O'Riordan Street and Coward Street, Mascot

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

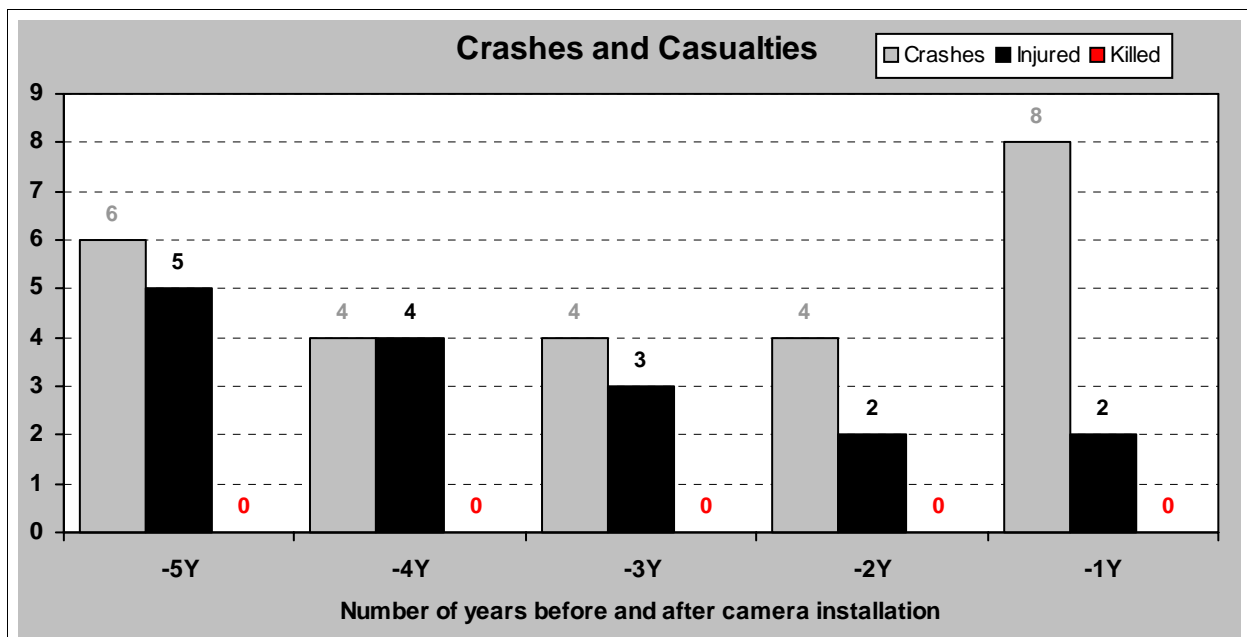
The red-light speed (safety) camera at the intersection of O'Riordan Street and Coward Street, Mascot commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 26 crashes resulting in 16 injuries and 0 fatalities.

In the 265 day period from installation to the end of 2011, there was 1 crash resulting in 0 injuries and 0 fatalities.

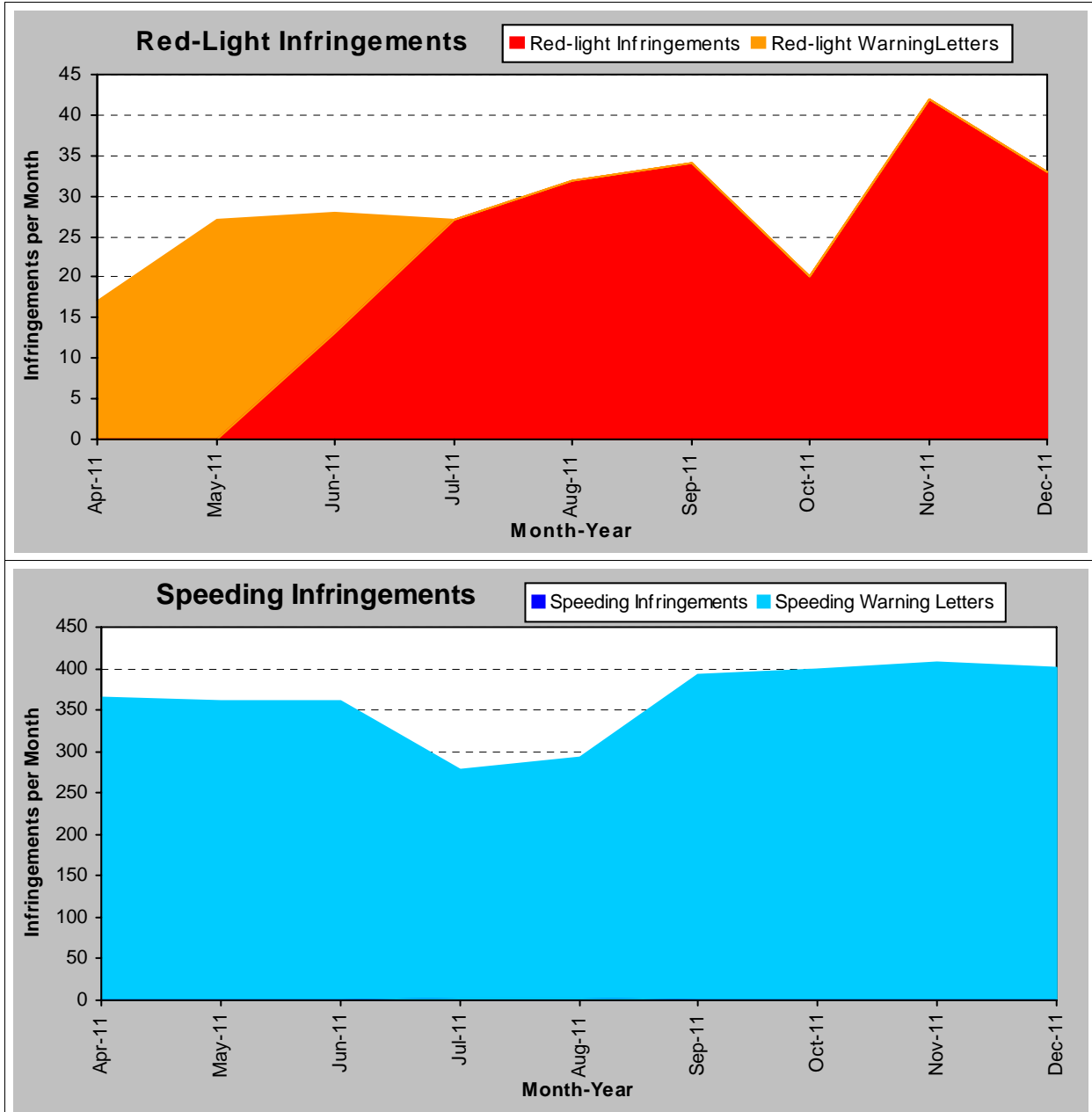
This represents a 73 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Maitland Road and Maud Street, Mayfield West

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

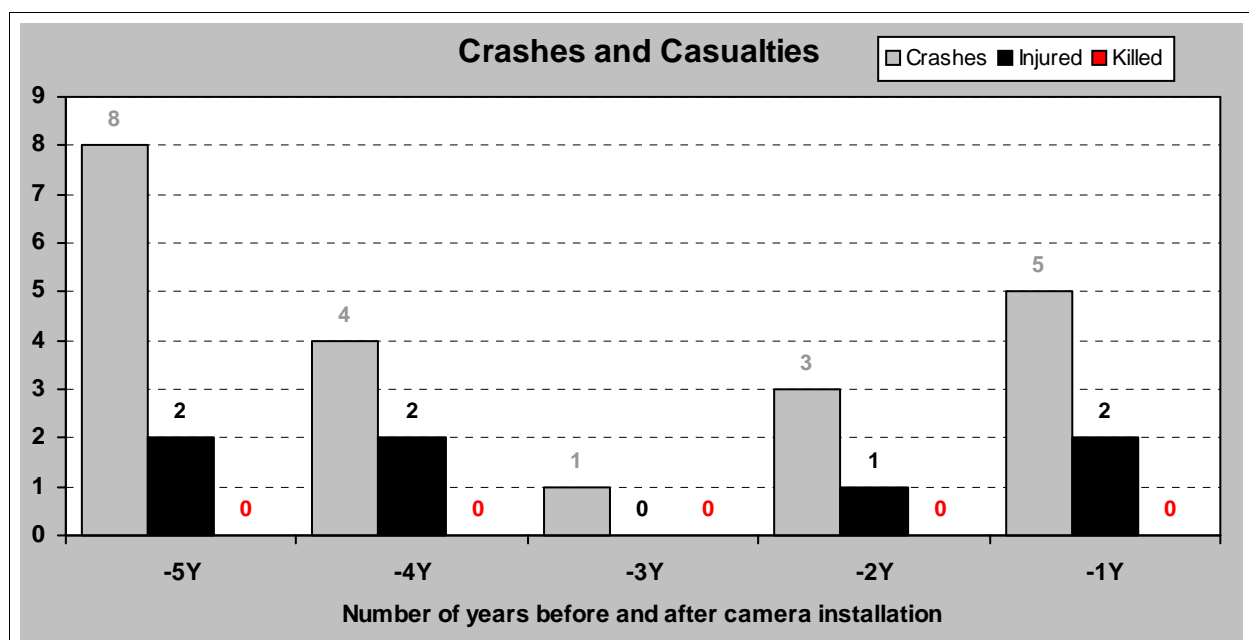
The red-light speed (safety) camera at the intersection of Maitland Road and Maud Street, Mayfield West commenced issuing warning letters in May 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 21 crashes resulting in 7 injuries and 0 fatalities.

In the 233 day period from installation to the end of 2011, there were 4 crashes resulting in 4 injuries and 0 fatalities.

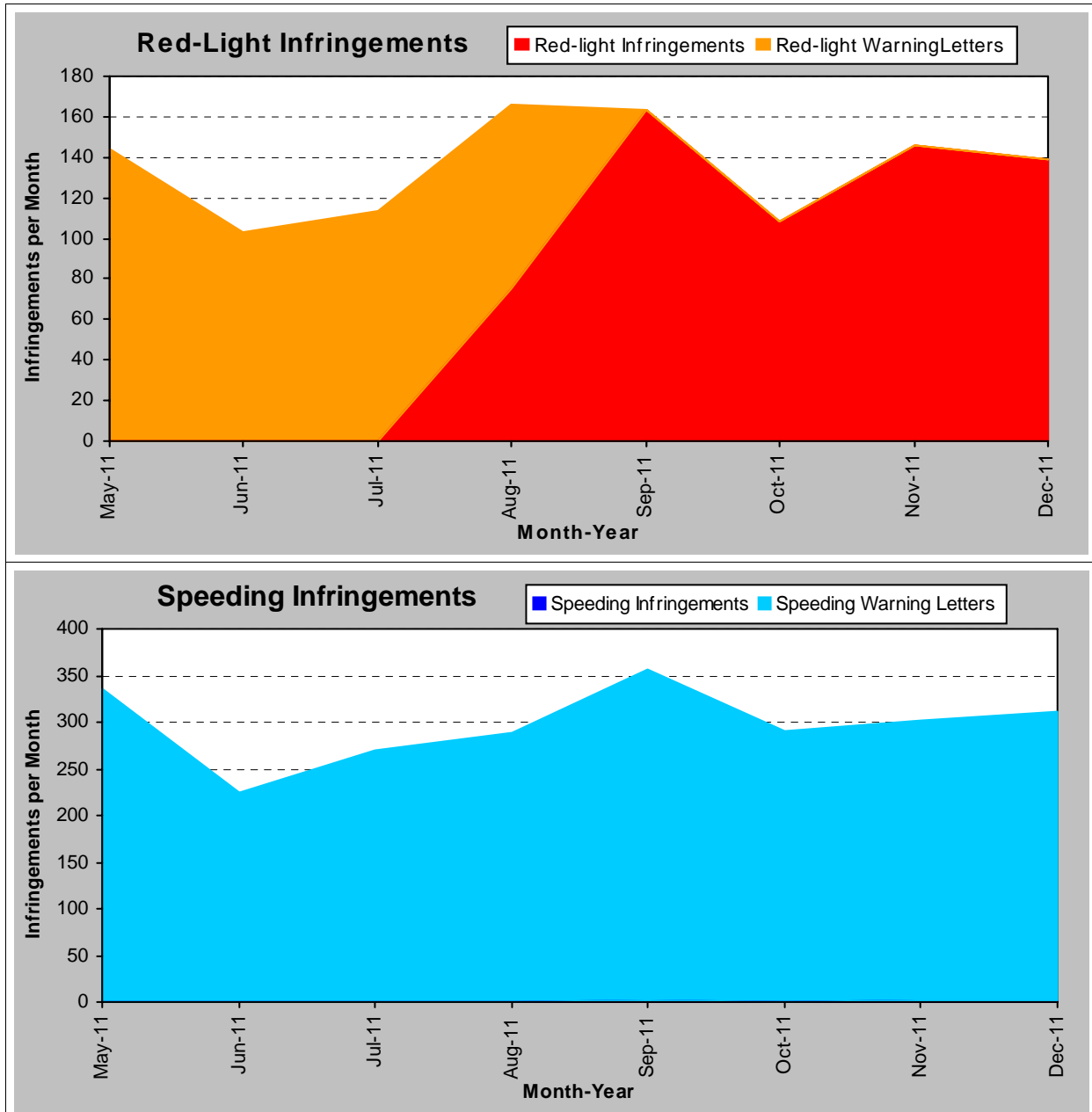
This represents a 49 per cent increase in the yearly average number of crashes and a 348 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

**Red-light speed (safety) camera location: Great Western Hwy and Coleman St / Hawkesbury Rd, Mays Hill / Westmead**

There are two cameras at the intersection.

Camera 1

The red-light speed (safety) camera at the intersection of Great Western Hwy and Hawkesbury Rd, Westmead commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

Camera 2

The red-light speed (safety) camera at the intersection of Great Western Hwy and Coleman St, Mays Hill commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

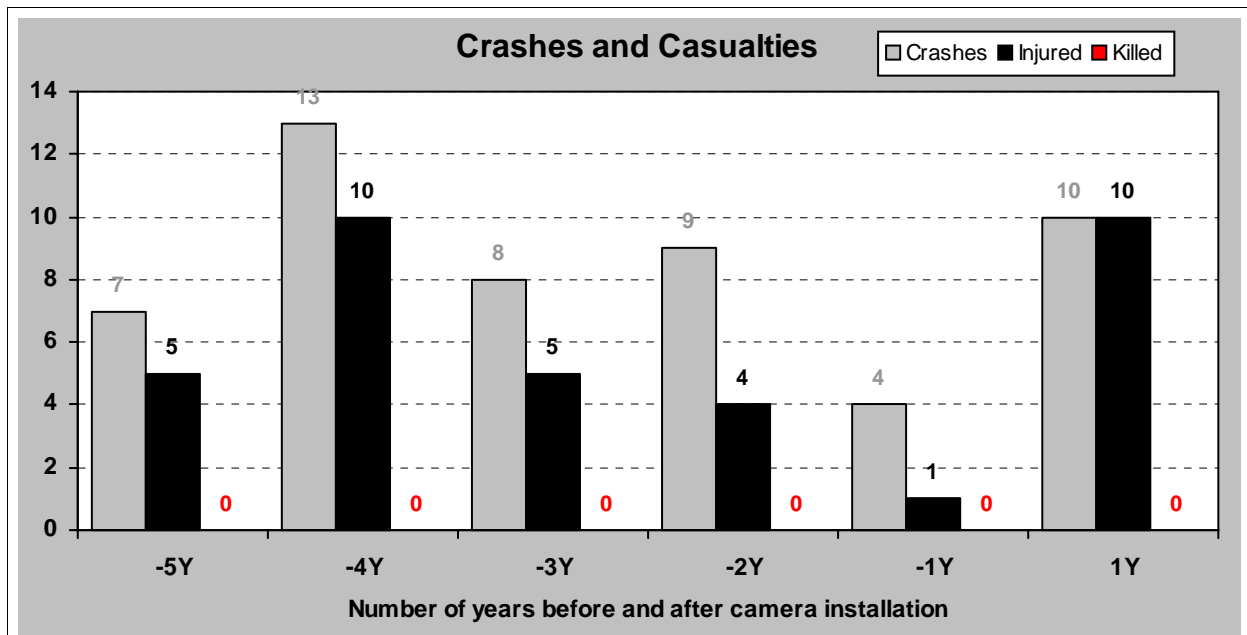
**Crashes at safety camera location**

In the five years prior to the installation of the red-light speed (safety) camera there were 41 crashes resulting in 25 injuries and 0 fatalities.

In the 549 day period from installation to the end of 2011, there were 12 crashes resulting in 11 injuries and 0 fatalities.

This represents a 3 per cent reduction in the yearly average number of crashes and a 46 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 5 crashes resulting in 2 casualties at this intersection in 2011.

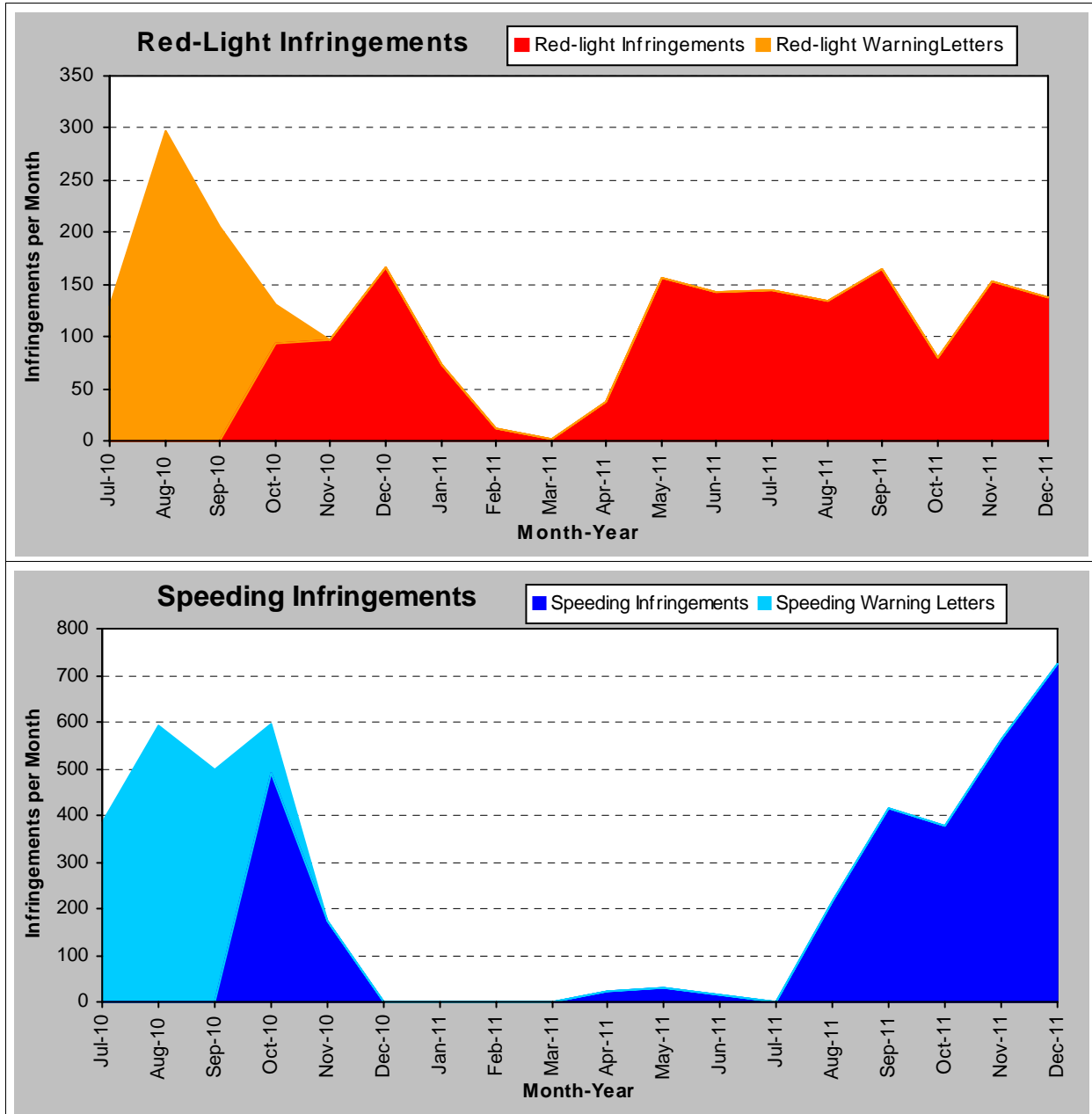




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Newbridge Rd and Henry Lawson Dr, Milperra

There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Newbridge Rd and Henry Lawson Dr, Milperra commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

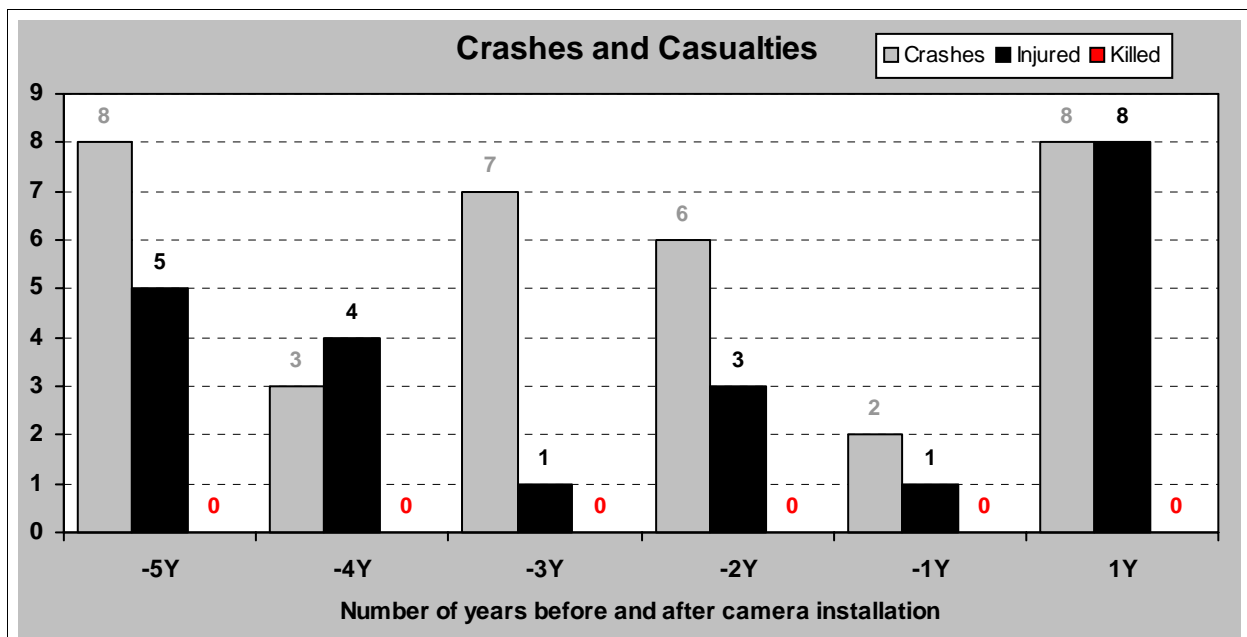
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 26 crashes resulting in 14 injuries and 0 fatalities.

In the 479 day period from installation to the end of 2011, there were 12 crashes resulting in 10 injuries and 0 fatalities.

This represents a 76 per cent increase in the yearly average number of crashes and a 172 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

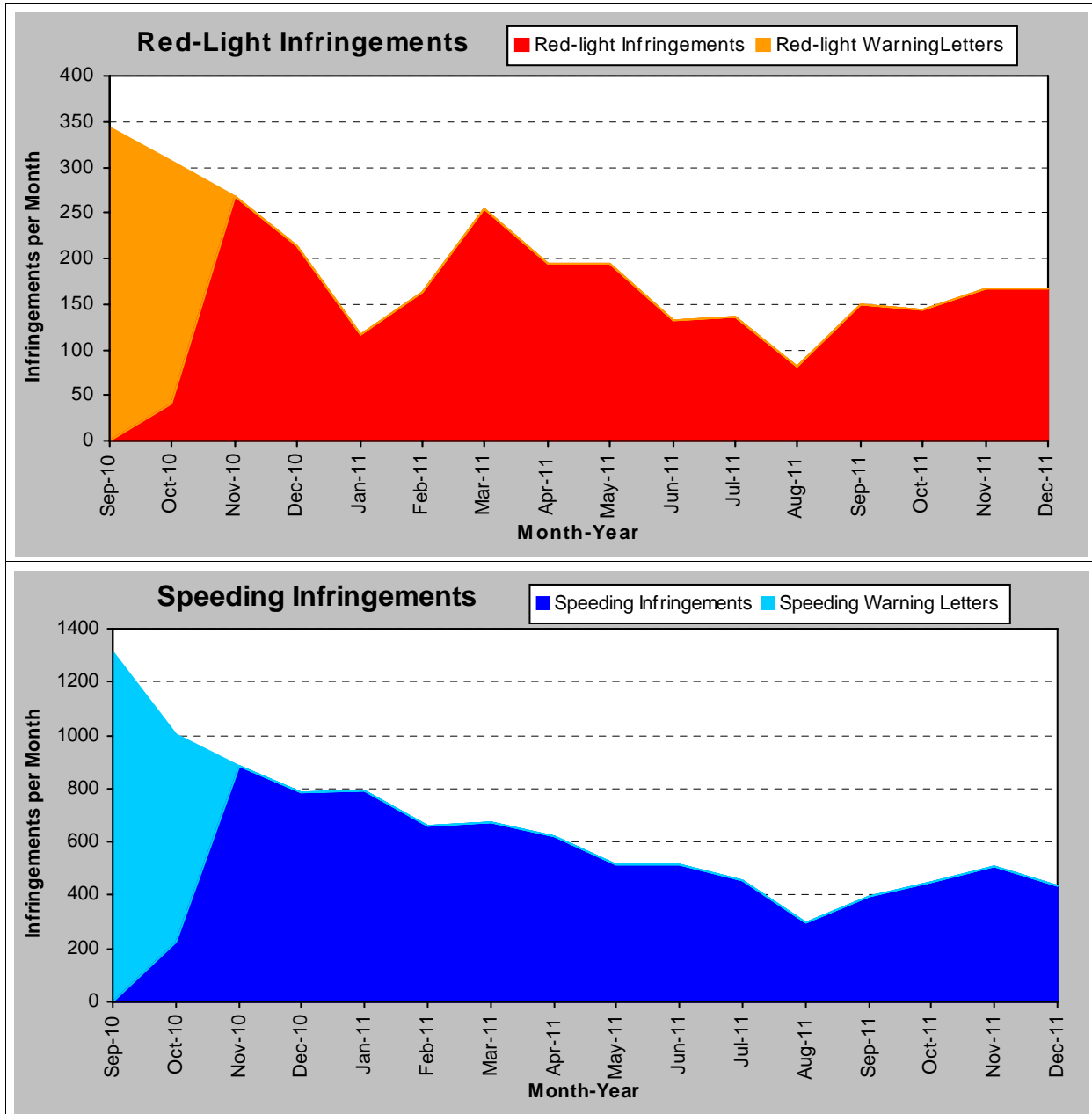
Provisional crash data shows there were 10 crashes resulting in 7 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Kingsway and Port Hacking Rd, Miranda

There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Kingsway and Port Hacking Rd, Miranda commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

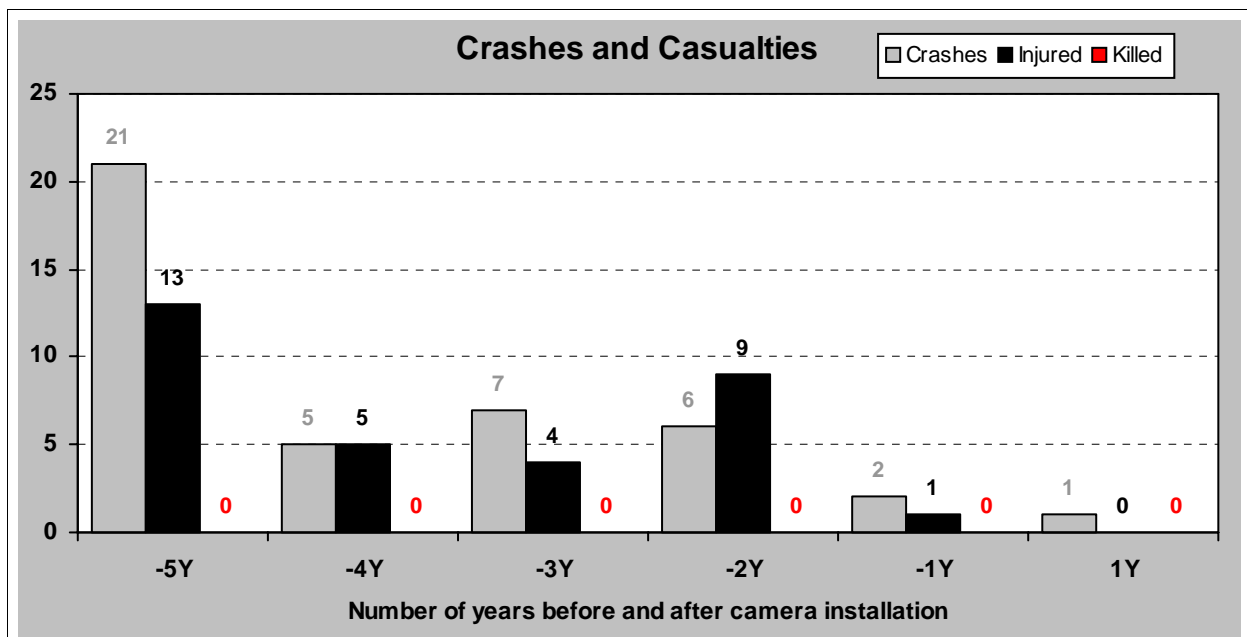
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 41 crashes resulting in 32 injuries and 0 fatalities.

In the 543 day period from installation to the end of 2011, there were 2 crashes resulting in 0 injuries and 0 fatalities.

This represents an 84 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

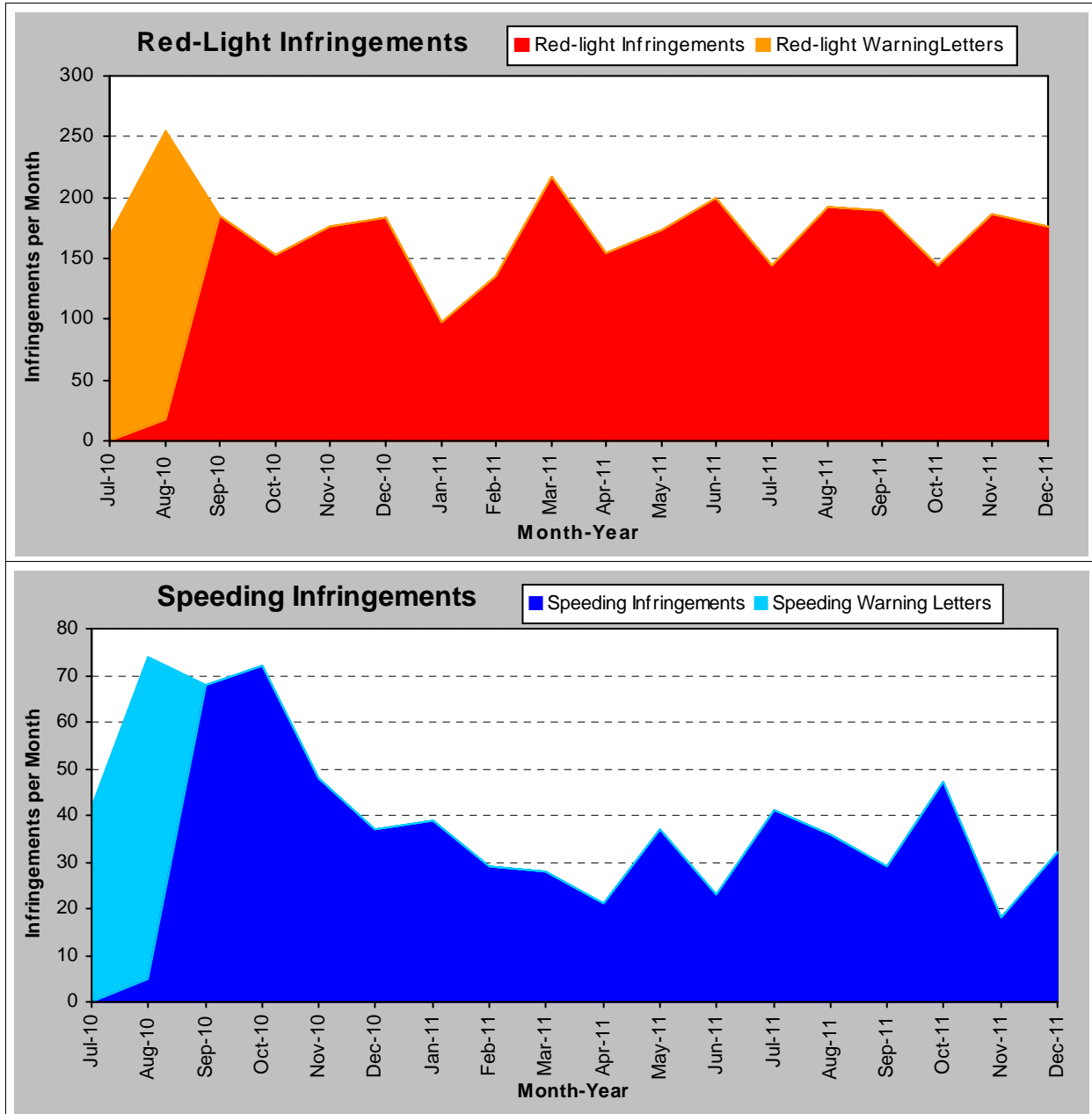
Provisional crash data shows there were 2 crashes resulting in 0 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Anzac Parade and Lang Road, Moore Park

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

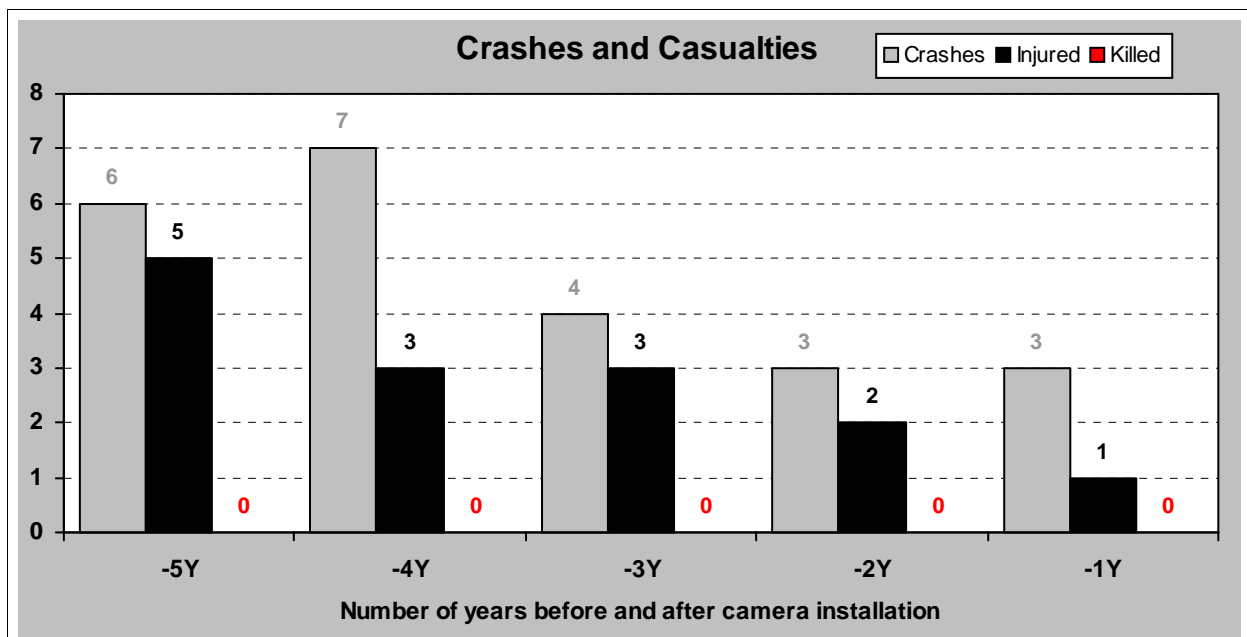
The red-light speed (safety) camera at the intersection of Anzac Parade and Lang Road, Moore Park commenced issuing warning letters in March 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 23 crashes resulting in 14 injuries and 0 fatalities.

In the 291 day period from installation to the end of 2011, there were 4 crashes resulting in 2 injuries and 0 fatalities.

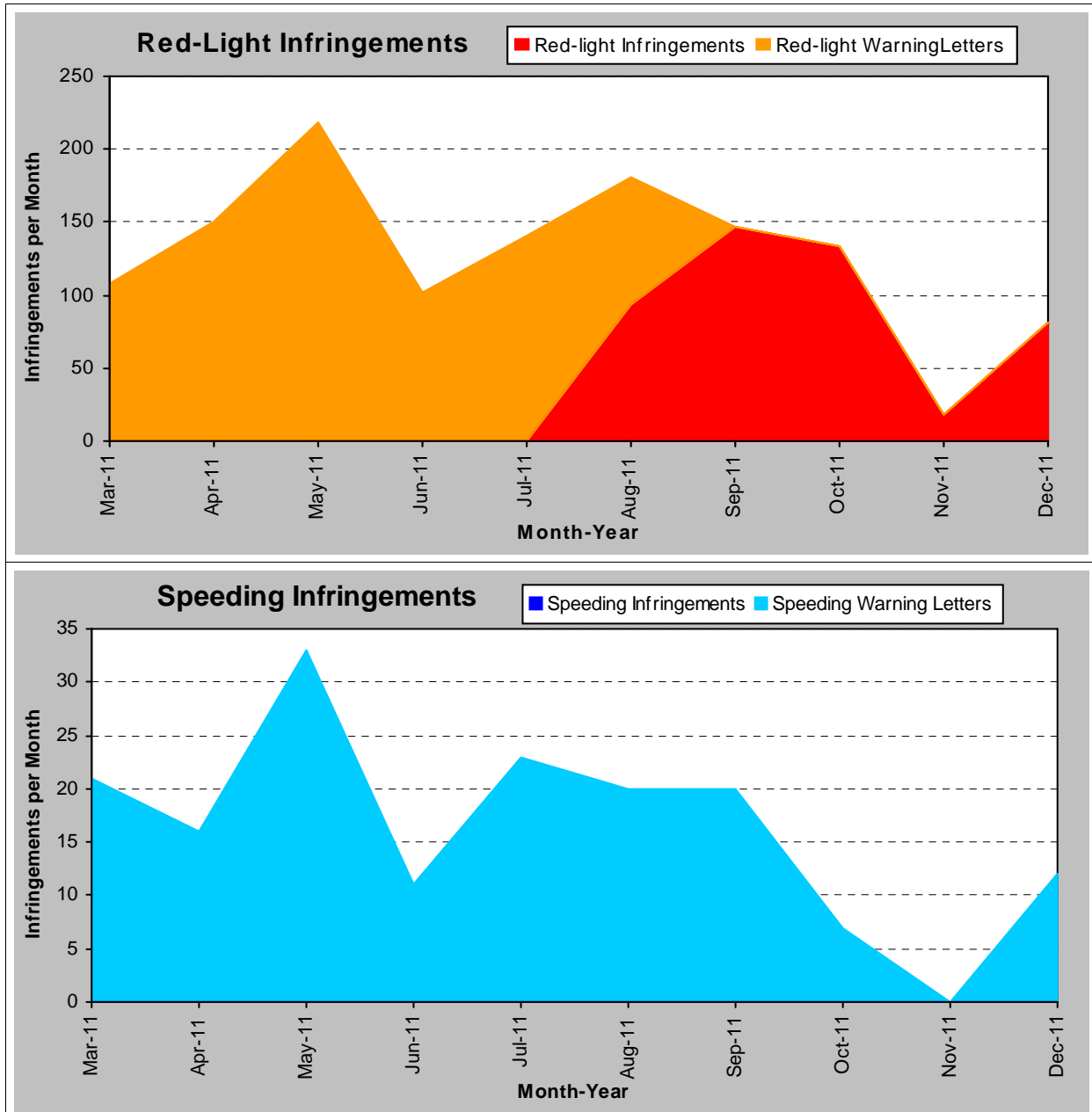
This represents a 9 per cent increase in the yearly average number of crashes and a 10 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Anzac Pde / Flinders St and Moore Park Rd, Moore Park

There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Anzac Pde and Moore Park Rd, Moore Park commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Flinders St and Moore Park Rd, Moore Park commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

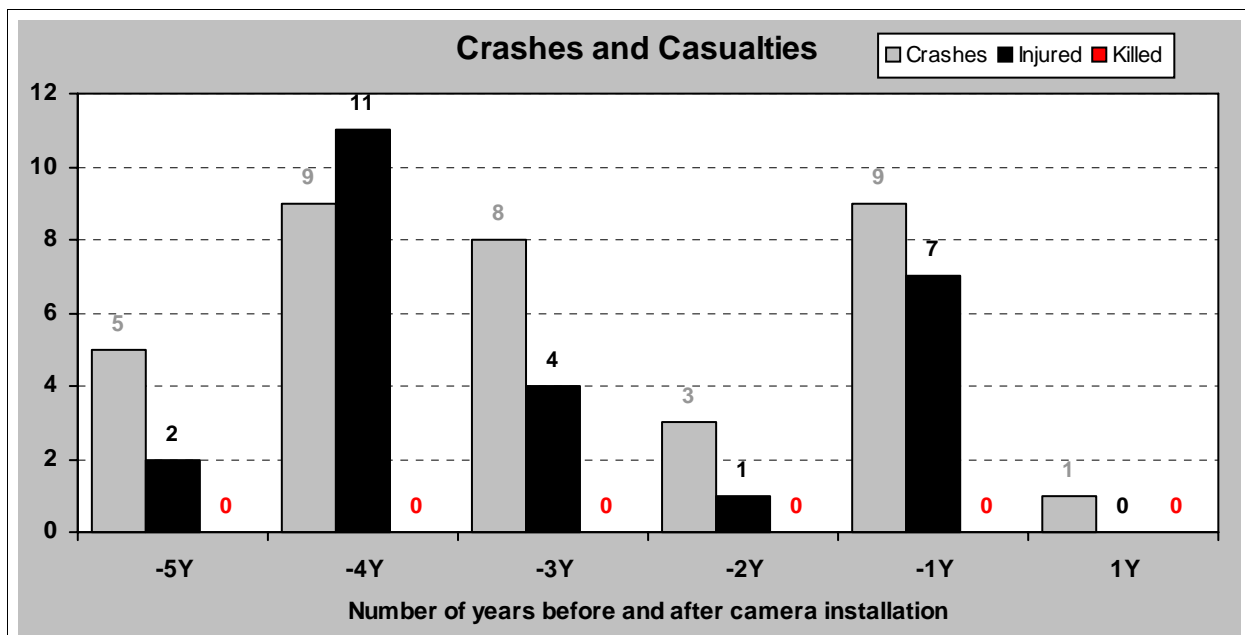
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 34 crashes resulting in 25 injuries and 0 fatalities.

In the 501 day period from installation to the end of 2011, there were 2 crashes resulting in 0 injuries and 0 fatalities.

This represents a 79 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 2 crashes resulting in 0 casualties at this intersection in 2011.

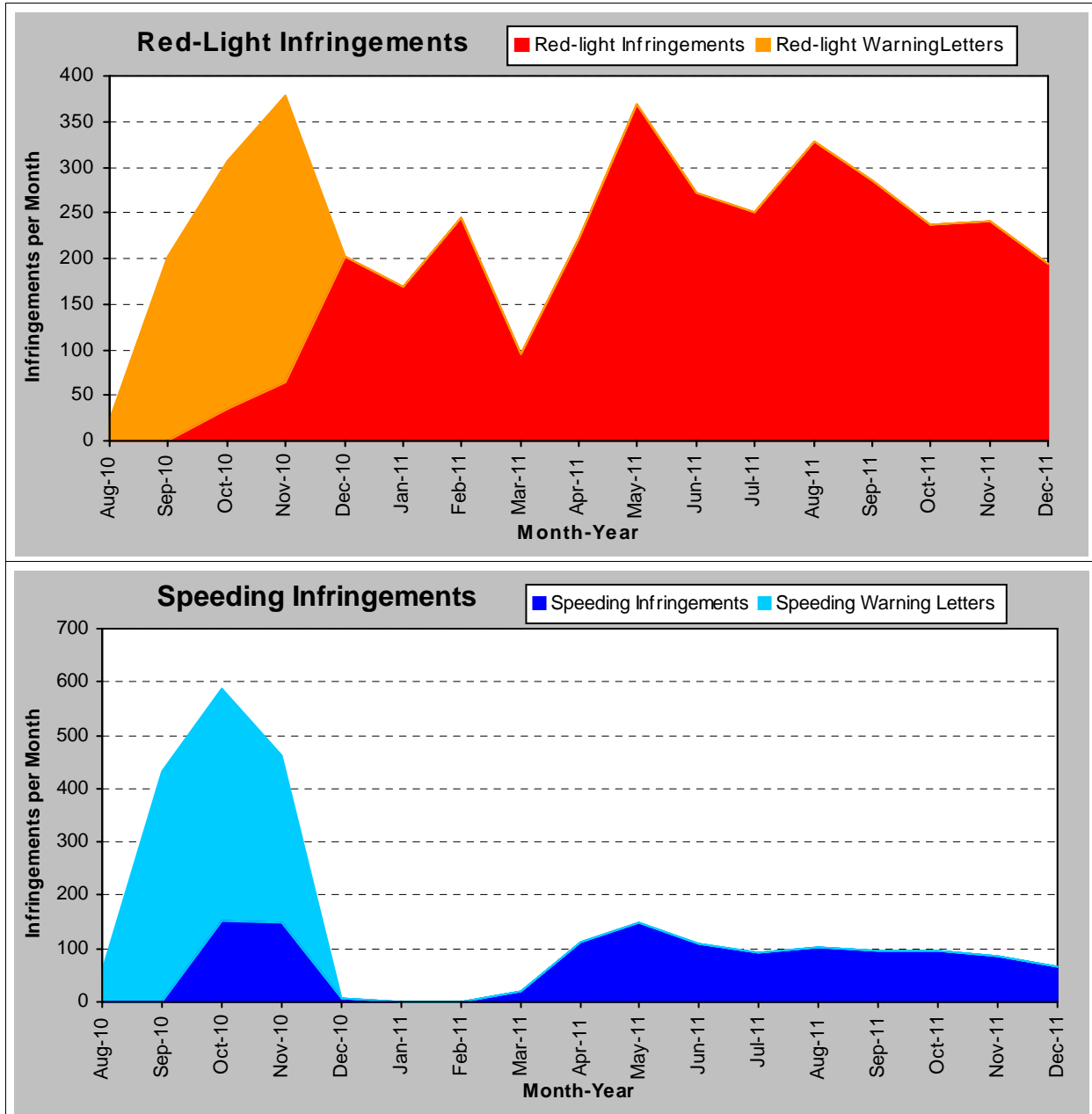




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Newbridge Rd and Stockton Av, Moorebank

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Newbridge Rd and Stockton Av, Moorebank commenced issuing warning letters in December 2010. The camera enforces red-light running and speeding offences.

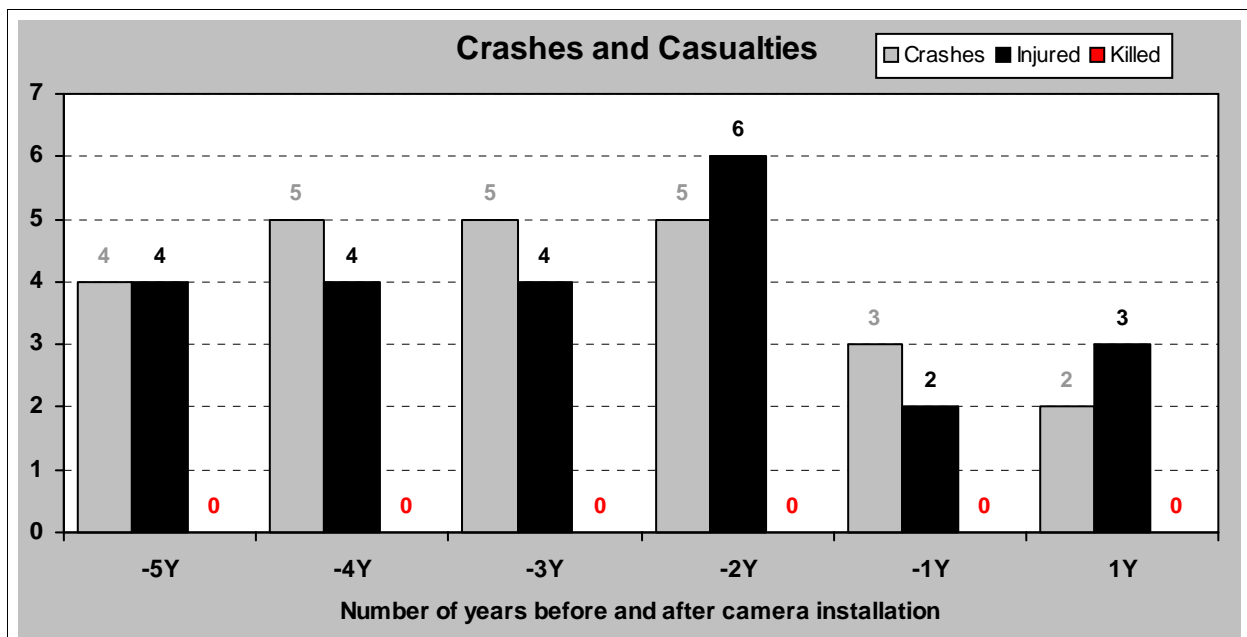
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 22 crashes resulting in 20 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 2 crashes resulting in 3 injuries and 0 fatalities.

This represents a 57 per cent reduction in the yearly average number of crashes and a 28 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

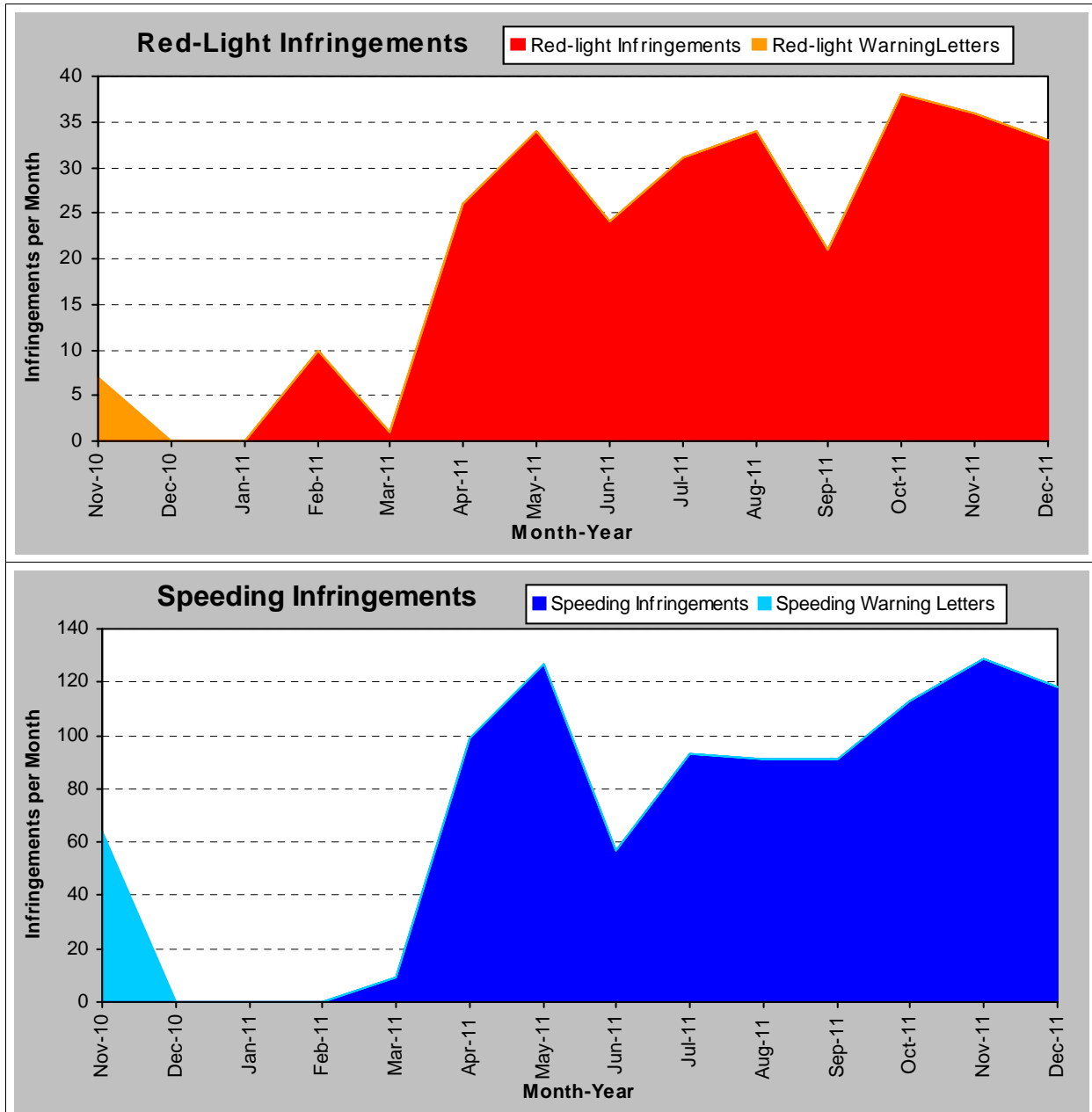
Provisional crash data shows there were 2 crashes resulting in 3 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Military Rd and Cowles Rd, Mosman

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Military Rd and Cowles Rd, Mosman commenced issuing warning letters in December 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

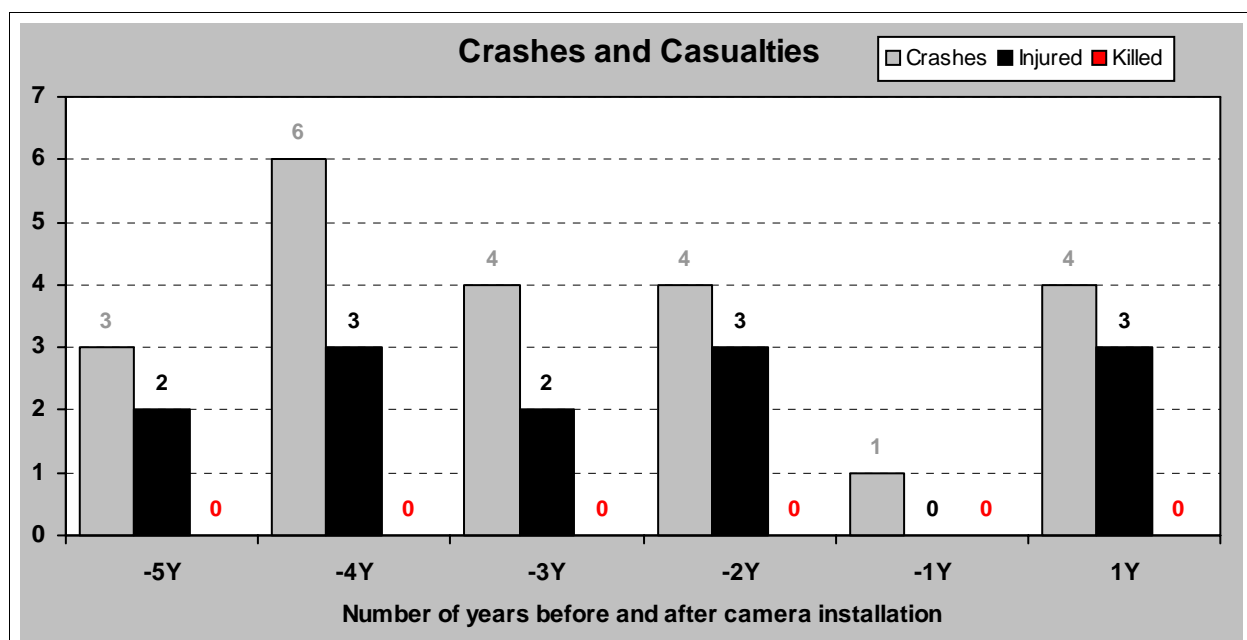
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 18 crashes resulting in 10 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 4 crashes resulting in 3 injuries and 0 fatalities.

This represents a 6 per cent increase in the yearly average number of crashes and a 43 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

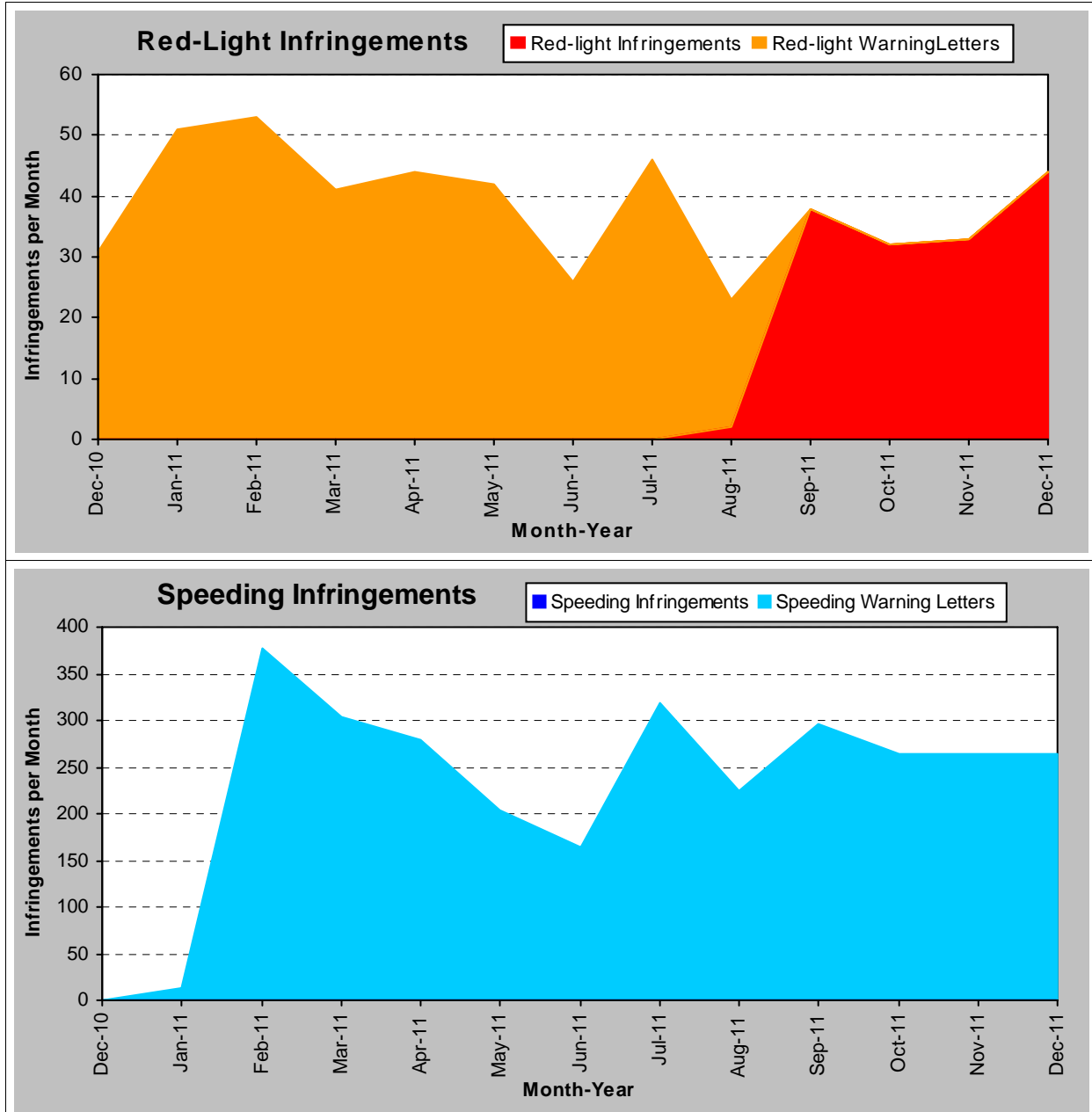
Provisional crash data shows there were 4 crashes resulting in 3 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Wicks Rd and Epping Rd, North Ryde

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Wicks Rd and Epping Rd, North Ryde commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

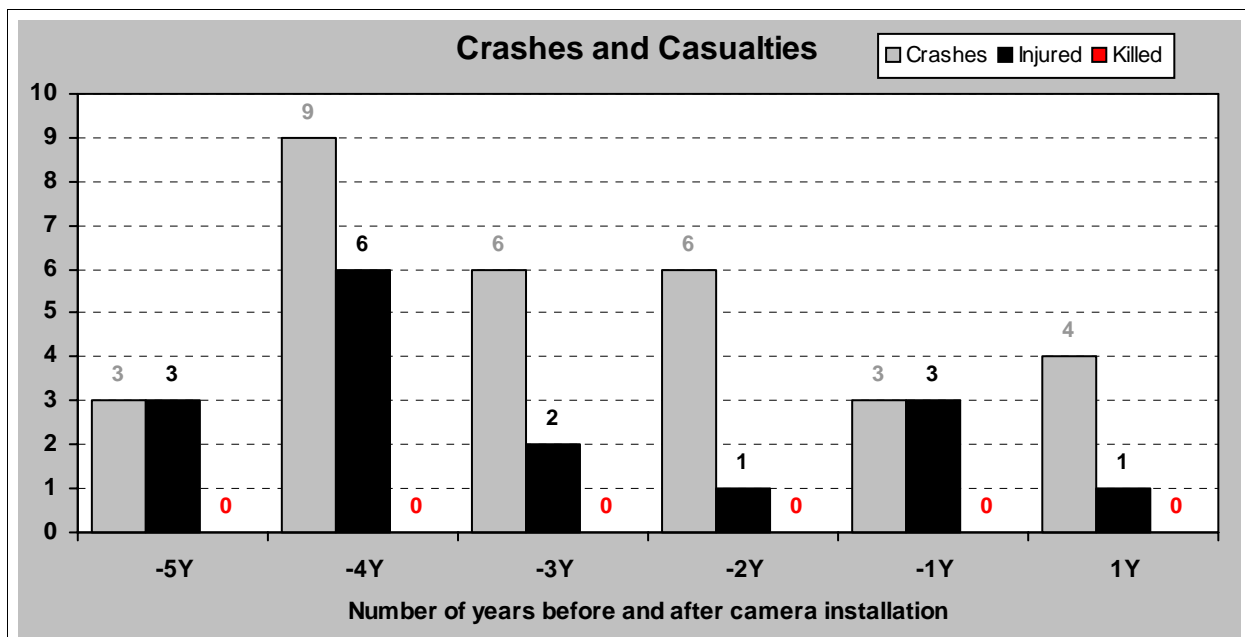
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 27 crashes resulting in 15 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 6 crashes resulting in 2 injuries and 0 fatalities.

This represents a 2 per cent reduction in the yearly average number of crashes and a 41 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

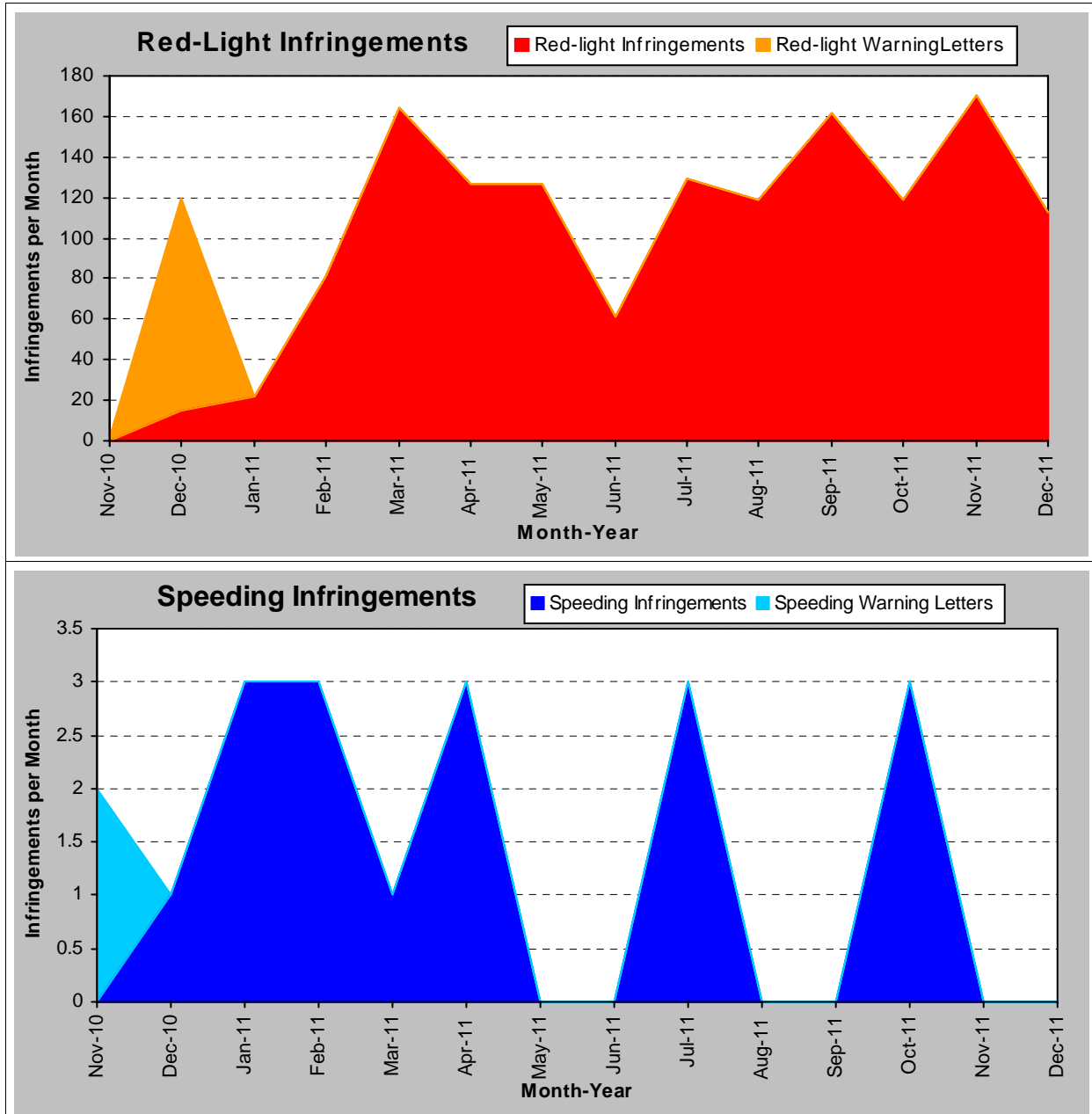
Provisional crash data shows there were 6 crashes resulting in 2 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Old Windsor Rd and Cumberland Hwy (Hart Dr), Northmead

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Old Windsor Rd and Cumberland Hwy (Hart Dr), Northmead commenced issuing warning letters in December 2010. The camera enforces red-light running and speeding offences.

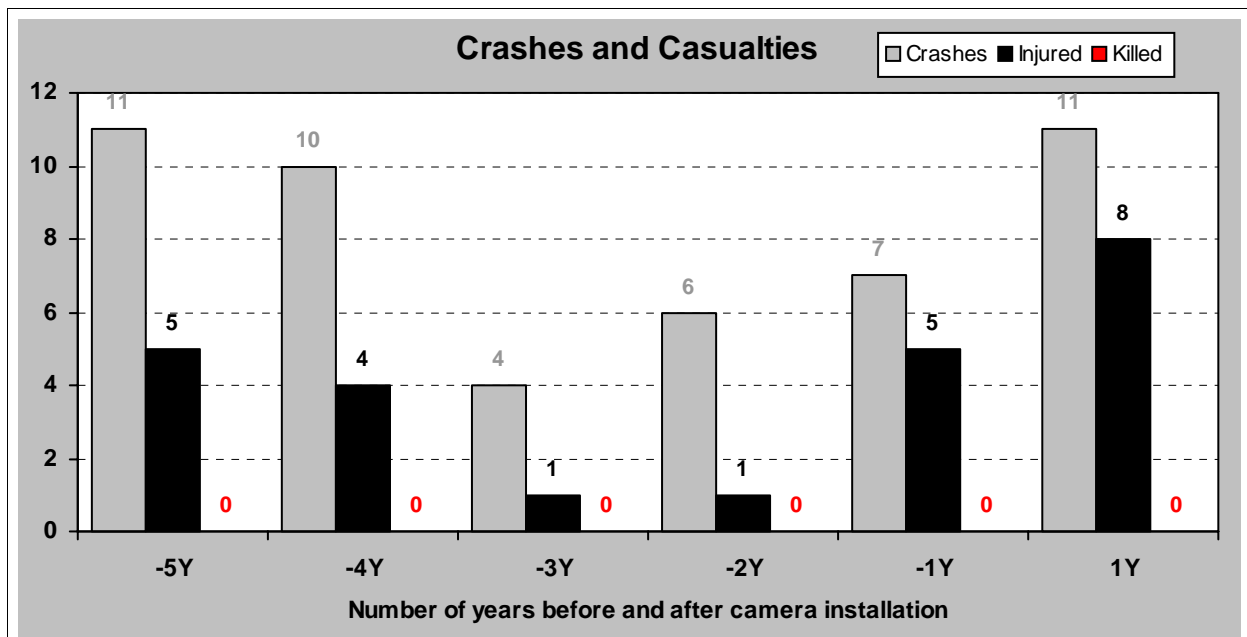
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 38 crashes resulting in 16 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 11 crashes resulting in 8 injuries and 0 fatalities.

This represents a 38 per cent increase in the yearly average number of crashes and a 139 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 10 crashes resulting in 7 casualties at this intersection in 2011.

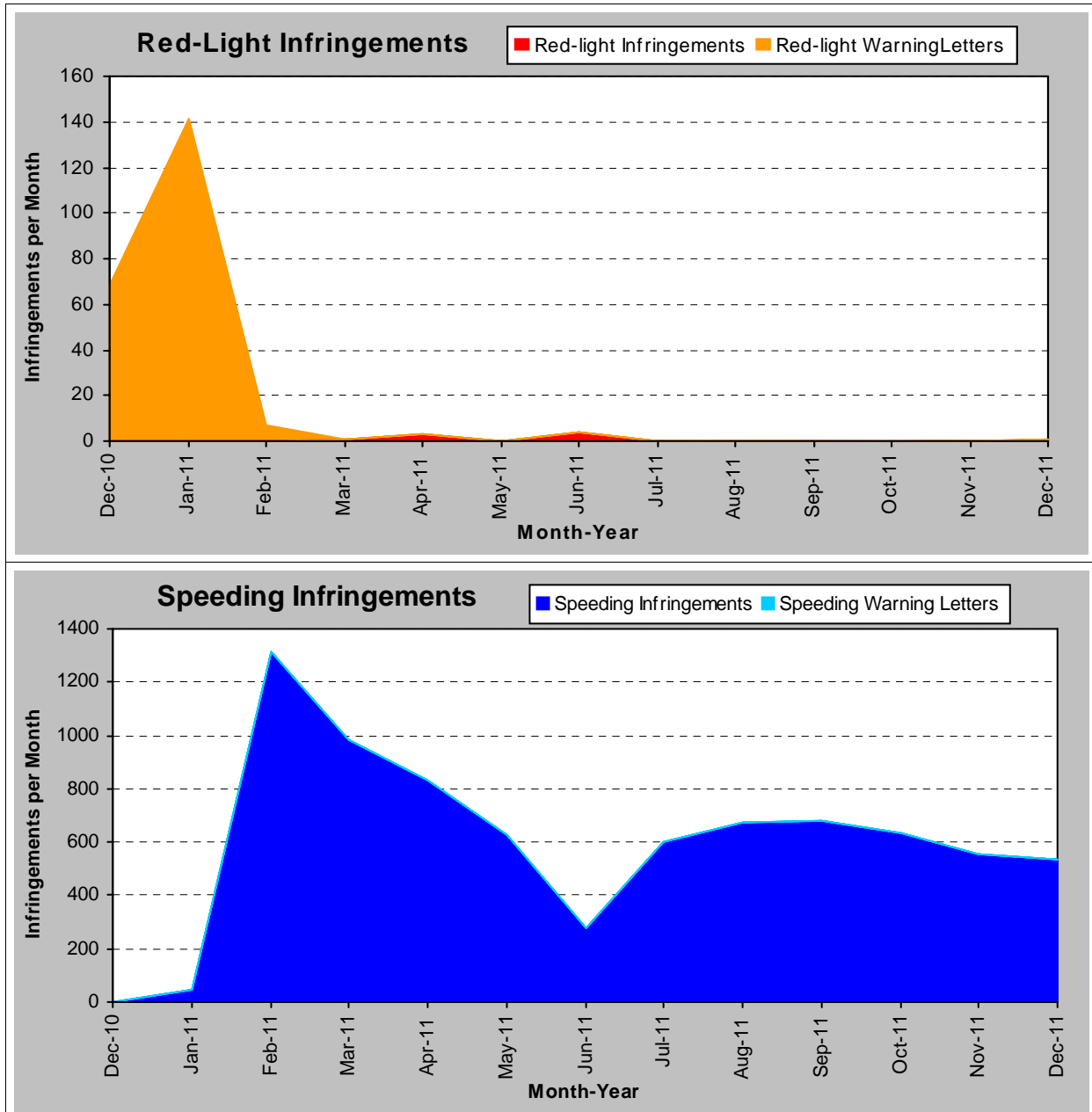




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Moore Park Rd and Oxford St, Paddington

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Moore Park Rd and Oxford St, Paddington commenced issuing warning letters in October 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

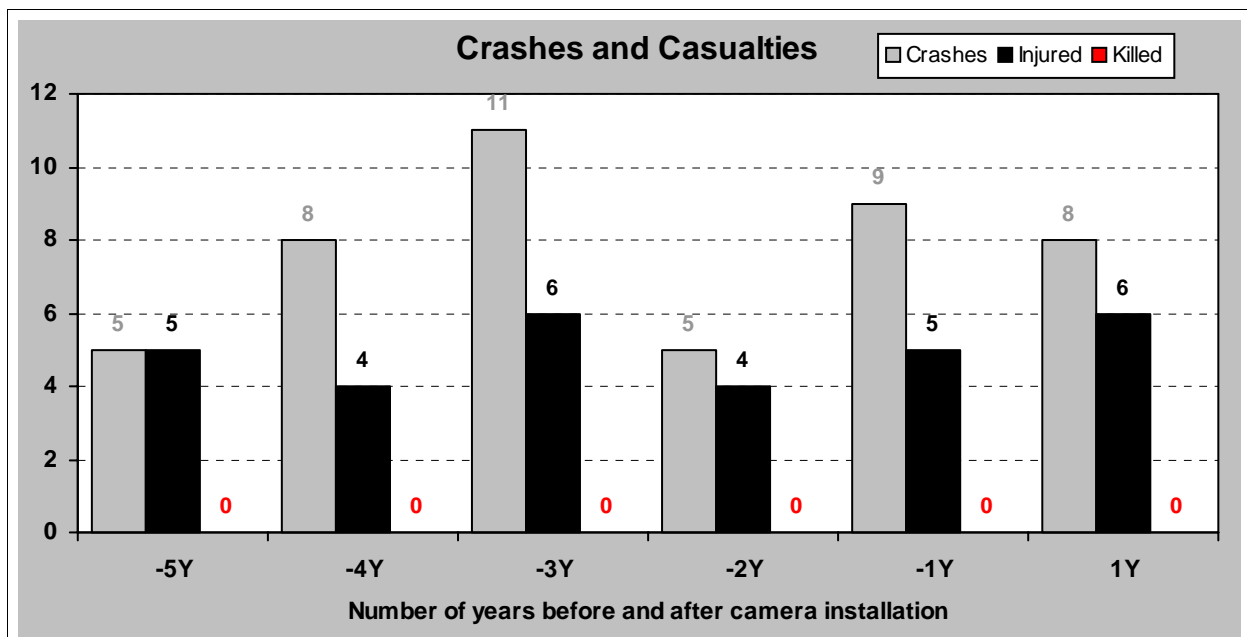
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 38 crashes resulting in 24 injuries and 0 fatalities.

In the 438 day period from installation to the end of 2011, there were 9 crashes resulting in 6 injuries and 0 fatalities.

This represents a 1 per cent reduction in the yearly average number of crashes and a 4 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

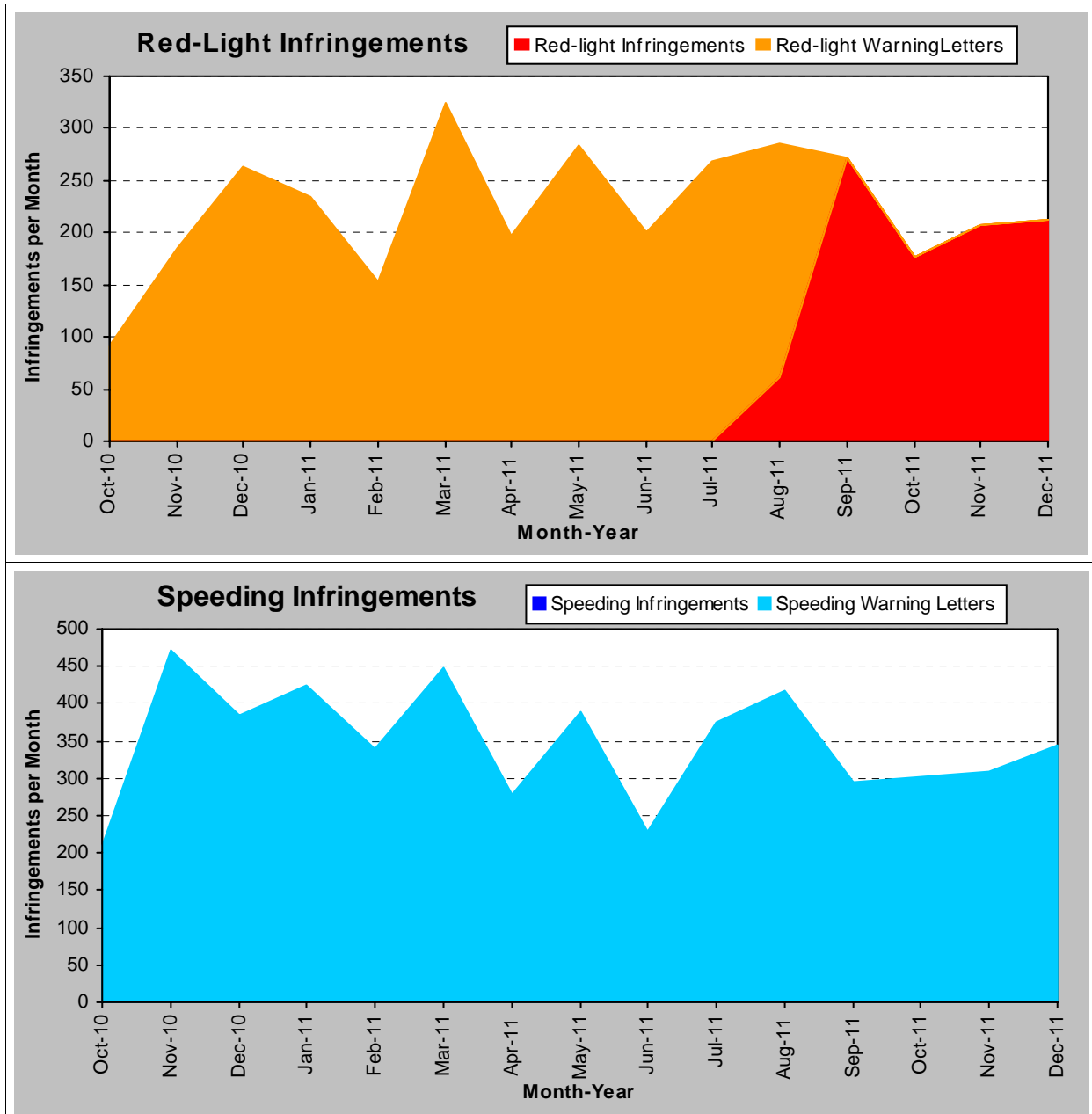
Provisional crash data shows there were 8 crashes resulting in 5 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: South Dowling St and Fitzroy St / Moore Park Rd, Paddington / Surry Hills

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of South Dowling St and Fitzroy St, Surry Hills commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of South Dowling St and Moore Park Rd, Paddington commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

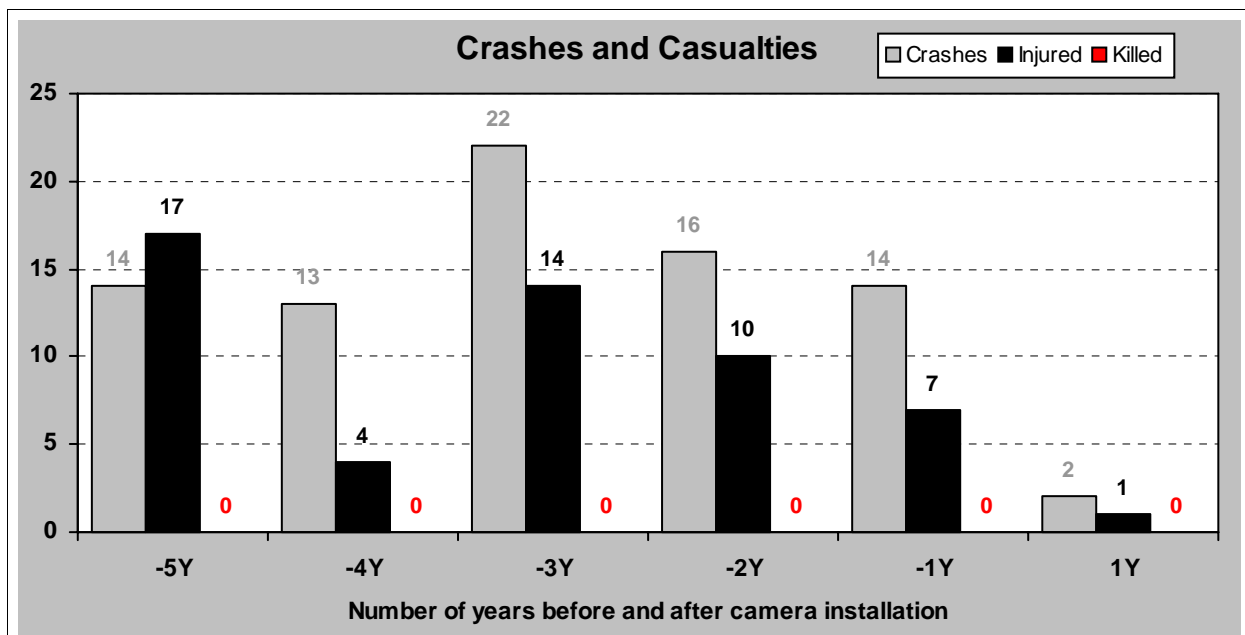
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 79 crashes resulting in 52 injuries and 0 fatalities.

In the 550 day period from installation to the end of 2011, there were 6 crashes resulting in 5 injuries and 0 fatalities.

This represents a 75 per cent reduction in the yearly average number of crashes and a 68 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

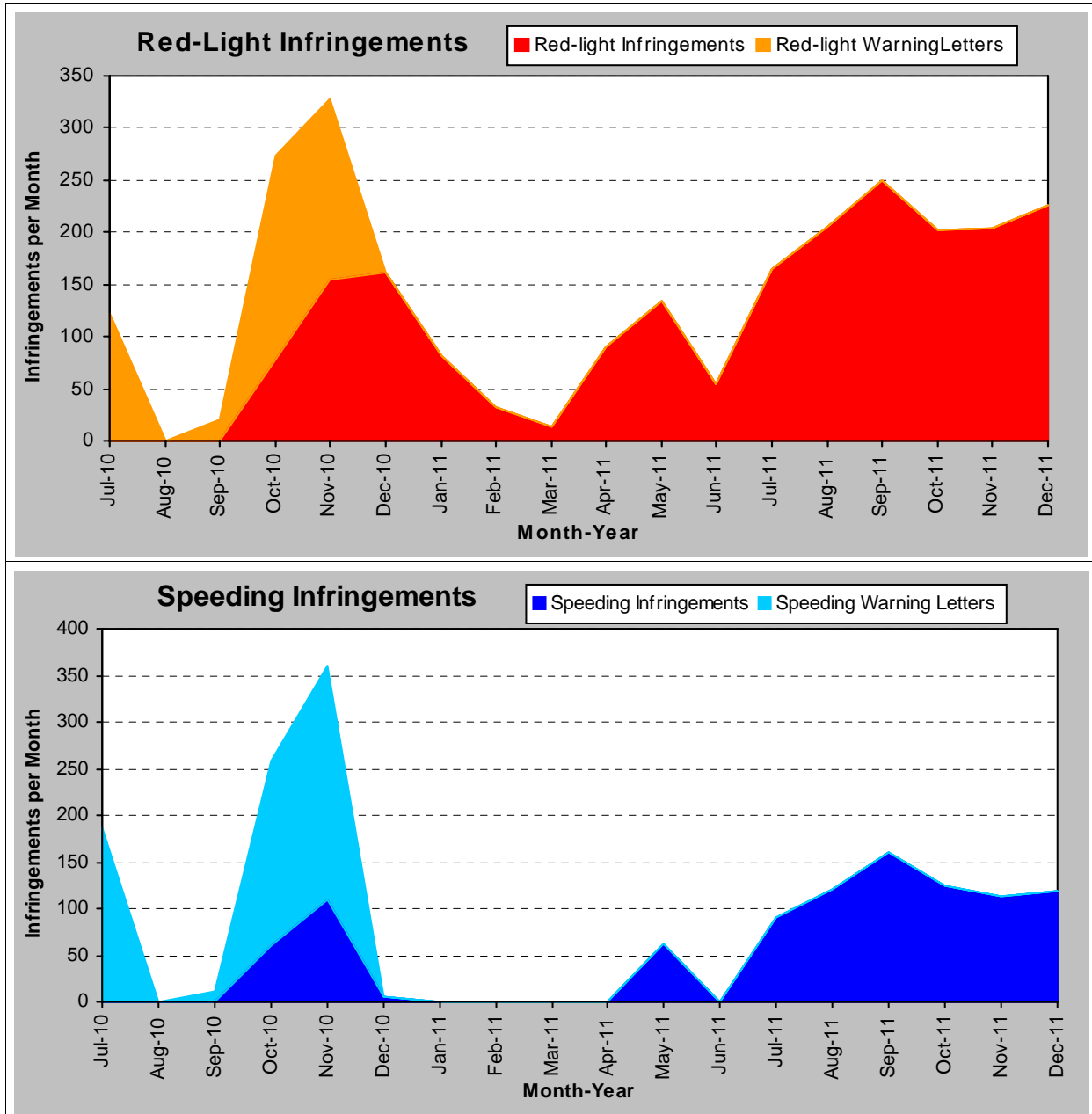
Provisional crash data shows there were 5 crashes resulting in 5 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Victoria Rd and Church St, Parramatta

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Victoria Rd and Church St, Parramatta commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

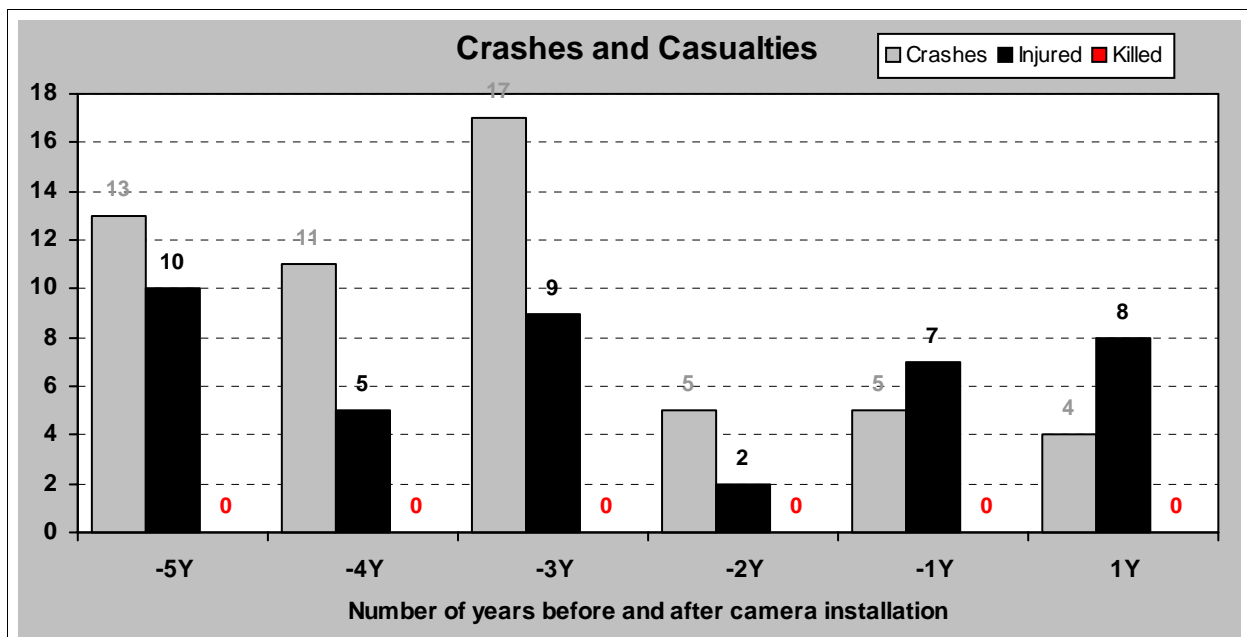
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 51 crashes resulting in 33 injuries and 0 fatalities.

In the 556 day period from installation to the end of 2011, there were 8 crashes resulting in 8 injuries and 0 fatalities.

This represents a 48 per cent reduction in the yearly average number of crashes and a 20 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

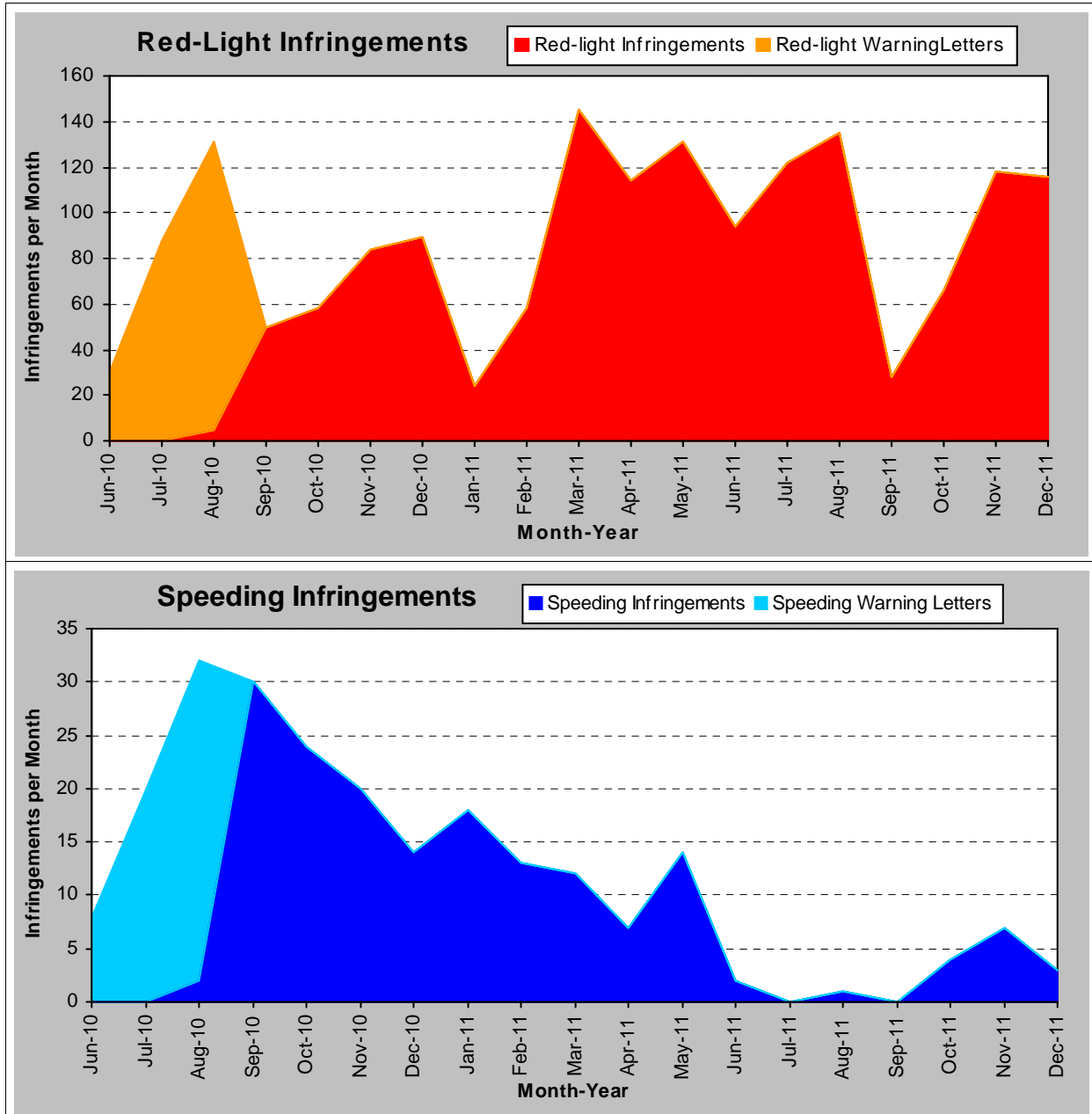
Provisional crash data shows there were 6 crashes resulting in 6 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

**Red-light speed (safety) camera location: Pennant Hills Rd and Beecroft Rd (W), Pennant Hills (school zone)**

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

**Camera 1**

The red-light speed (safety) camera at the intersection of Pennant Hills Rd and Beecroft Rd (W), Pennant Hills commenced issuing warning letters in September 2010. The camera enforces red-light running only.

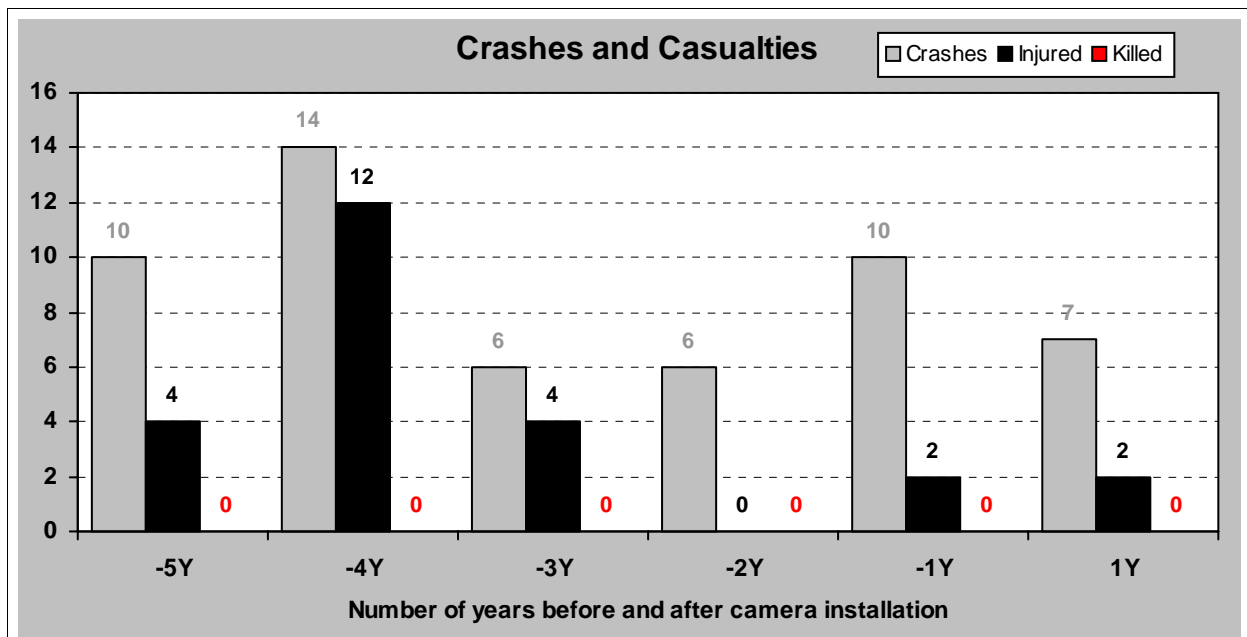
**Crashes at safety camera location**

In the five years prior to the installation of the red-light speed (safety) camera there were 46 crashes resulting in 22 injuries and 0 fatalities.

In the 487 day period from installation to the end of 2011, there were 7 crashes resulting in 2 injuries and 0 fatalities.

This represents a 43 per cent reduction in the yearly average number of crashes and a 66 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 4 crashes resulting in 2 casualties at this intersection in 2011.

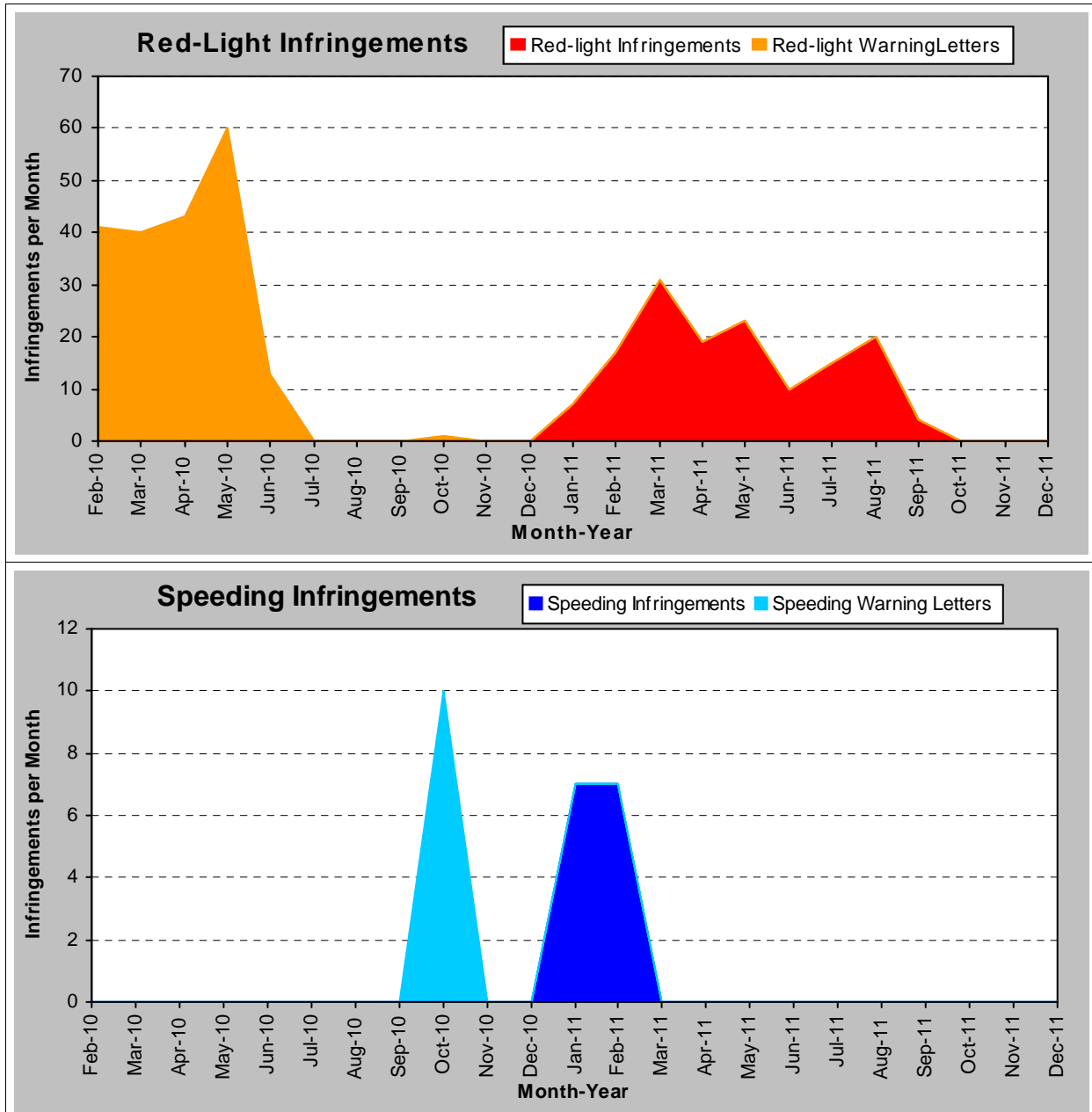




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Gordon St and New Canterbury Rd, Petersham

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Gordon St and New Canterbury Rd, Petersham commenced issuing warning letters in November 2010. The camera enforces red-light running only.

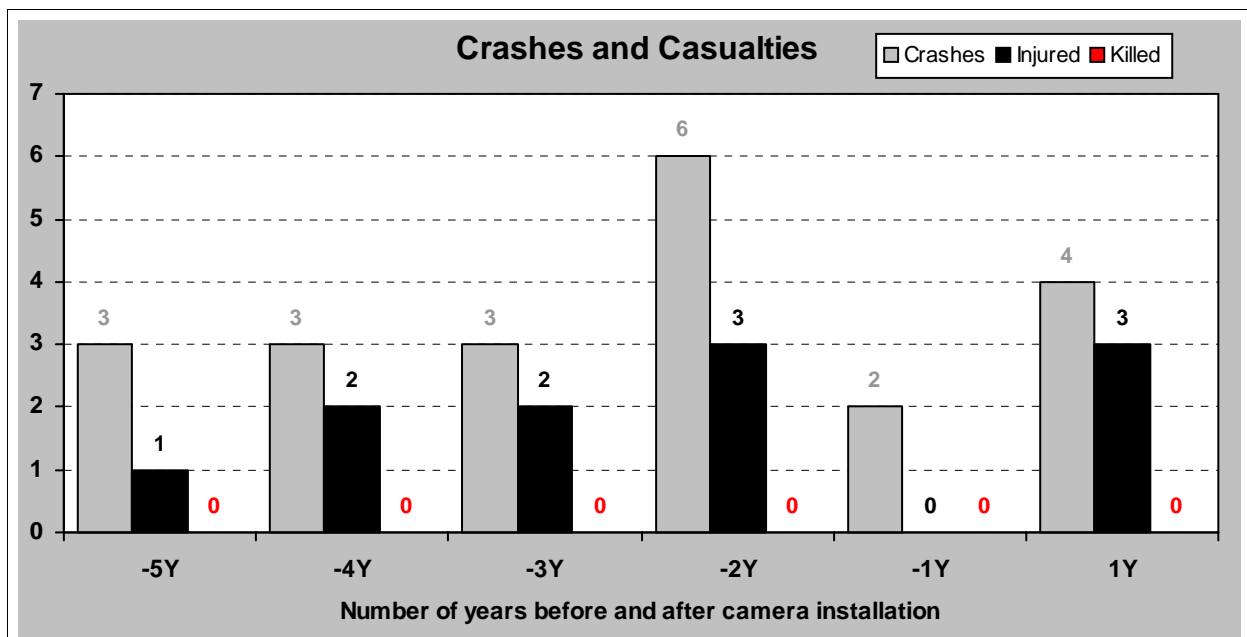
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 17 crashes resulting in 8 injuries and 0 fatalities.

In the 418 day period from installation to the end of 2011, there were 5 crashes resulting in 3 injuries and 0 fatalities.

This represents a 28 per cent increase in the yearly average number of crashes and a 64 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

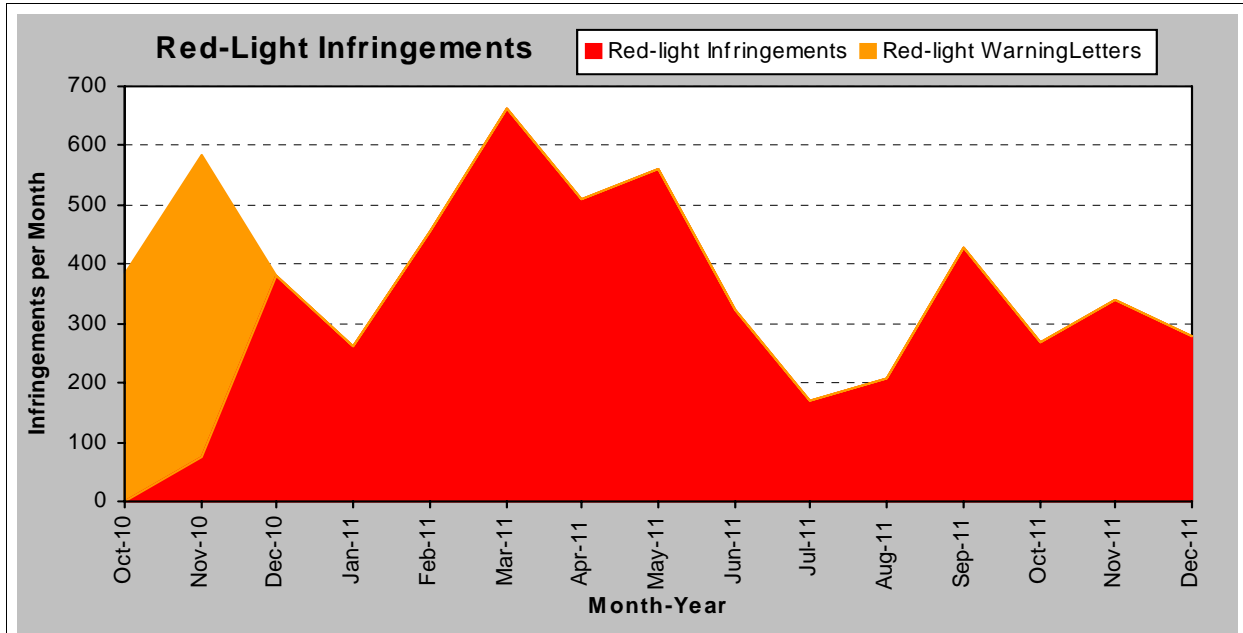
Provisional crash data shows there were 5 crashes resulting in 3 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Avoca Street and Darley Road, Randwick

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

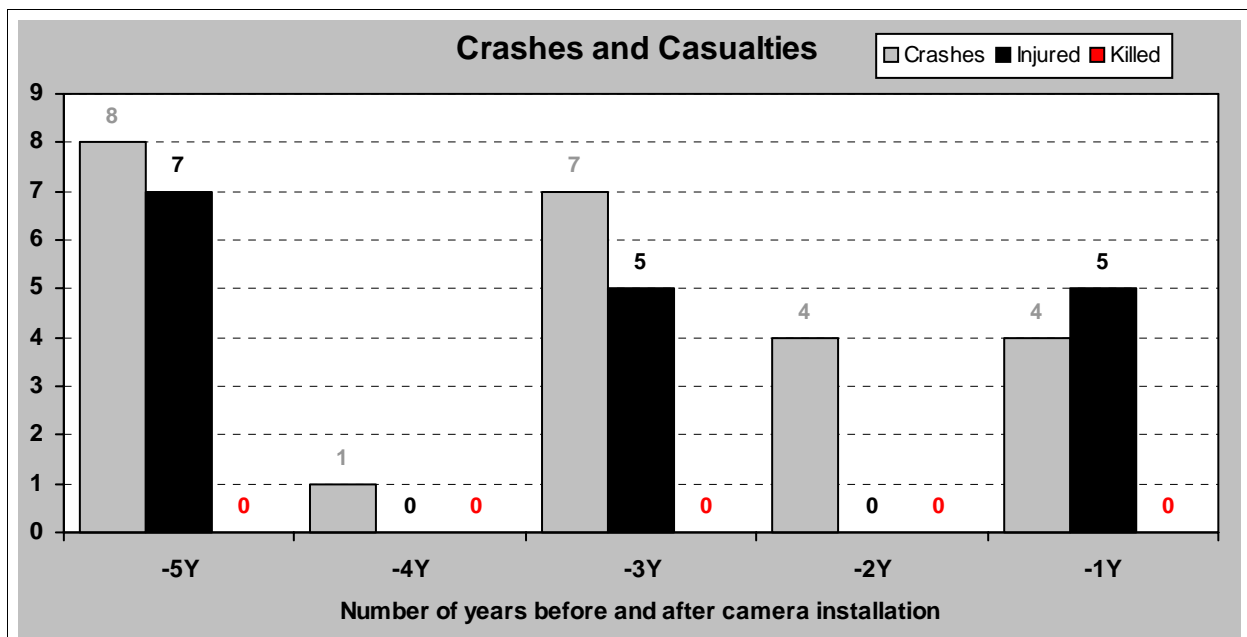
The red-light speed (safety) camera at the intersection of Avoca Street and Darley Road, Randwick commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 24 crashes resulting in 17 injuries and 0 fatalities.

In the 194 day period from installation to the end of 2011, there was 1 crash resulting in 0 injuries and 0 fatalities.

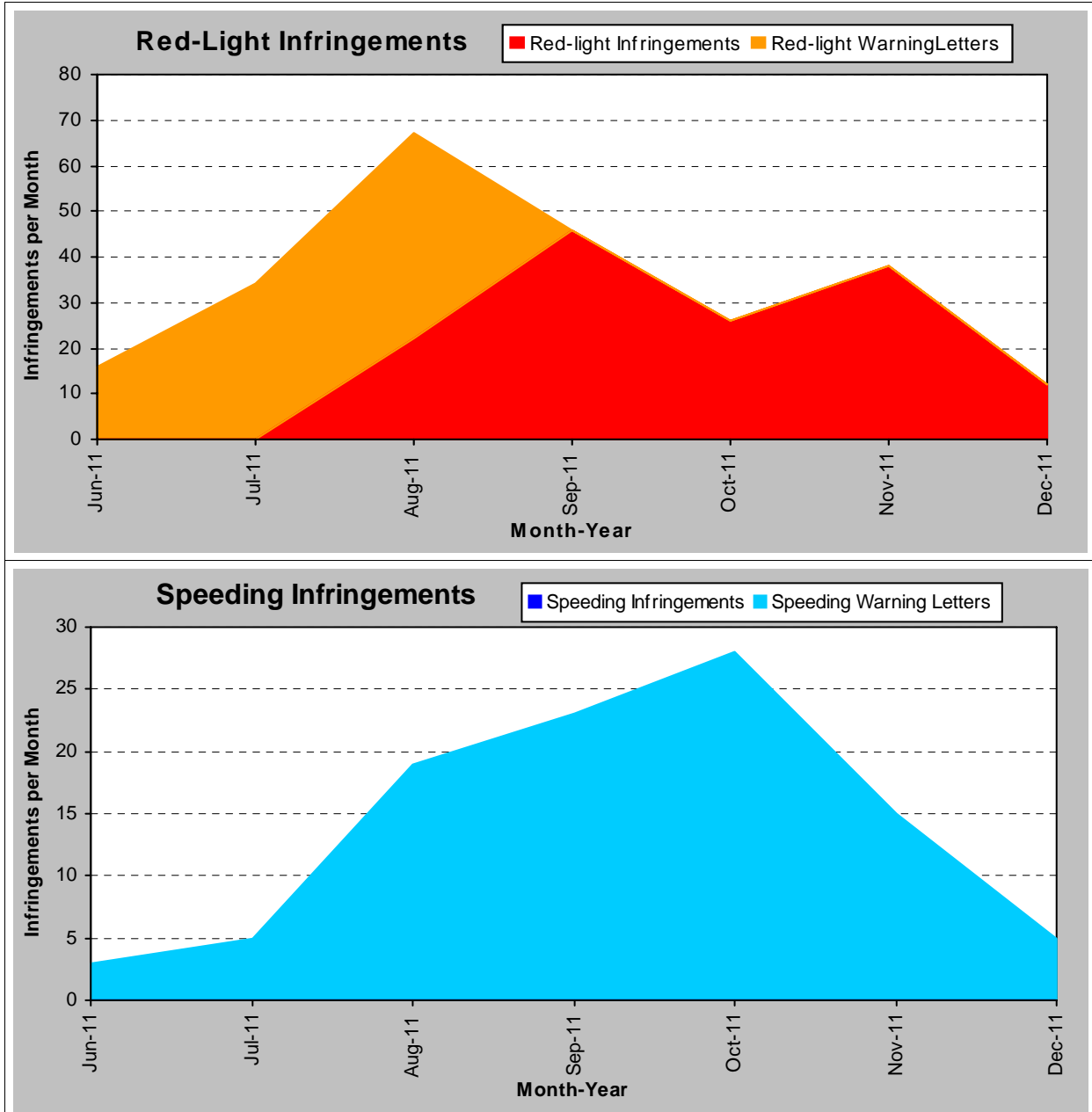
This represents a 61 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

### Red-light speed (safety) camera location: Chalmers Street and Cleveland Street, Redfern (school zone)

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

#### Camera 1

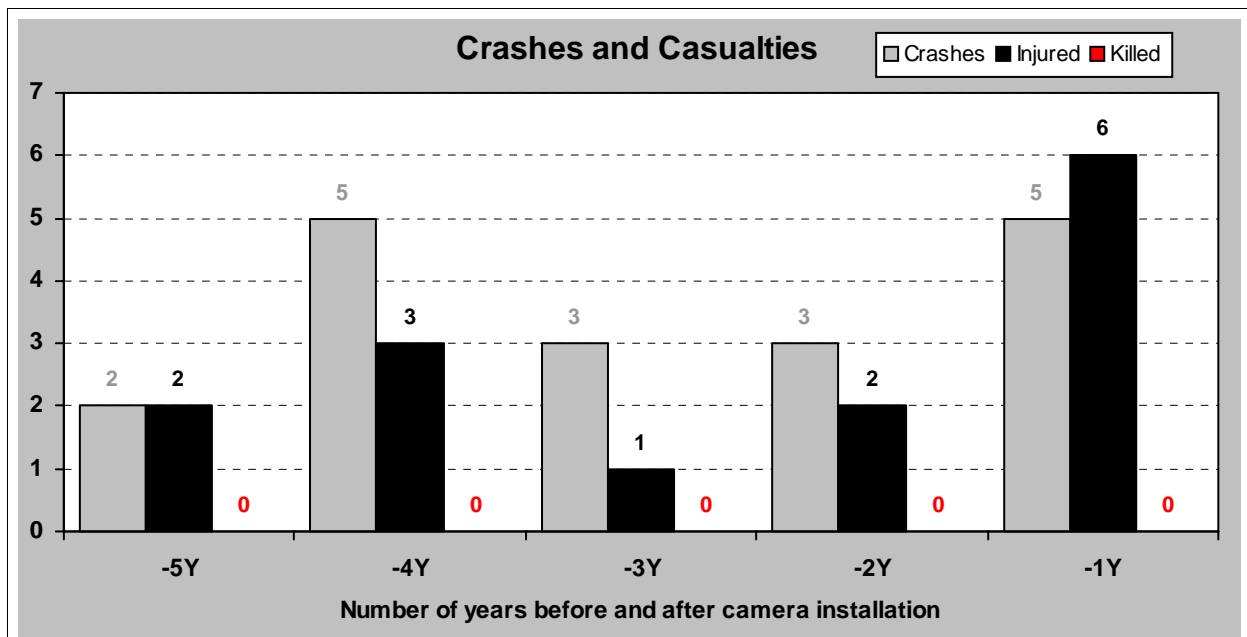
The red-light speed (safety) camera at the intersection of Chalmers Street and Cleveland Street, Redfern commenced issuing warning letters in June 2011. The camera enforces red-light running only.

#### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 18 crashes resulting in 14 injuries and 0 fatalities.

In the 205 day period from installation to the end of 2011, there was 1 crash resulting in 1 injury and 0 fatalities.

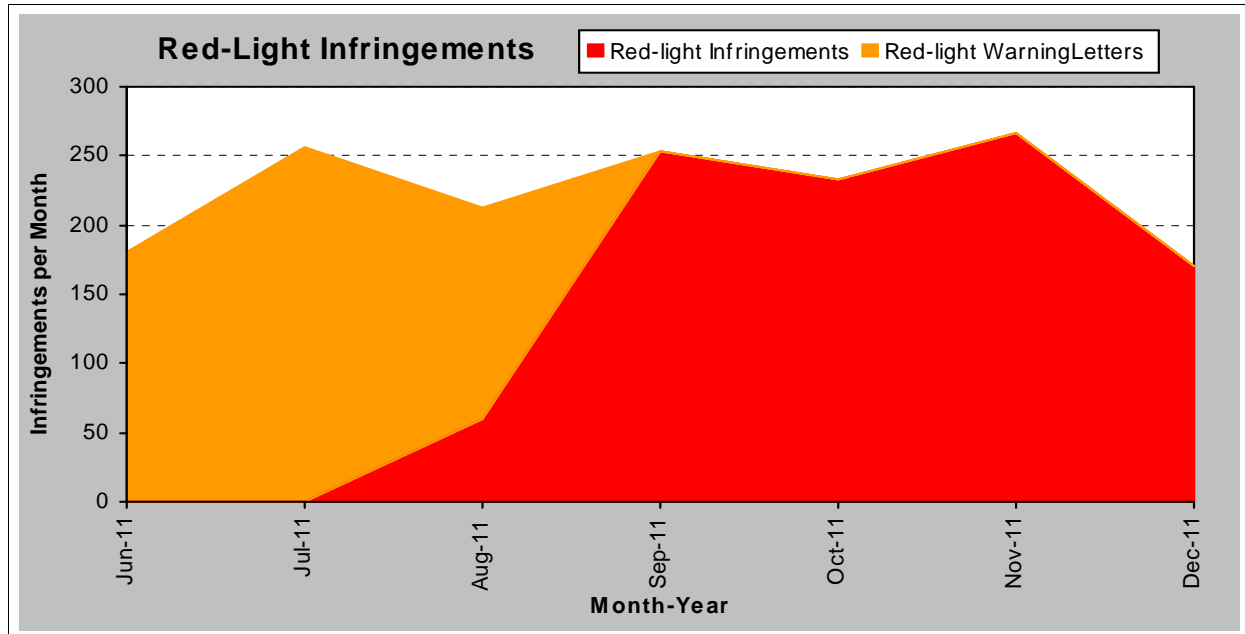
This represents a 51 per cent reduction in the yearly average number of crashes and a 36 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Bestic St and West Botany Street, Rockdale

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Bestic St and West Botany Street, Rockdale commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

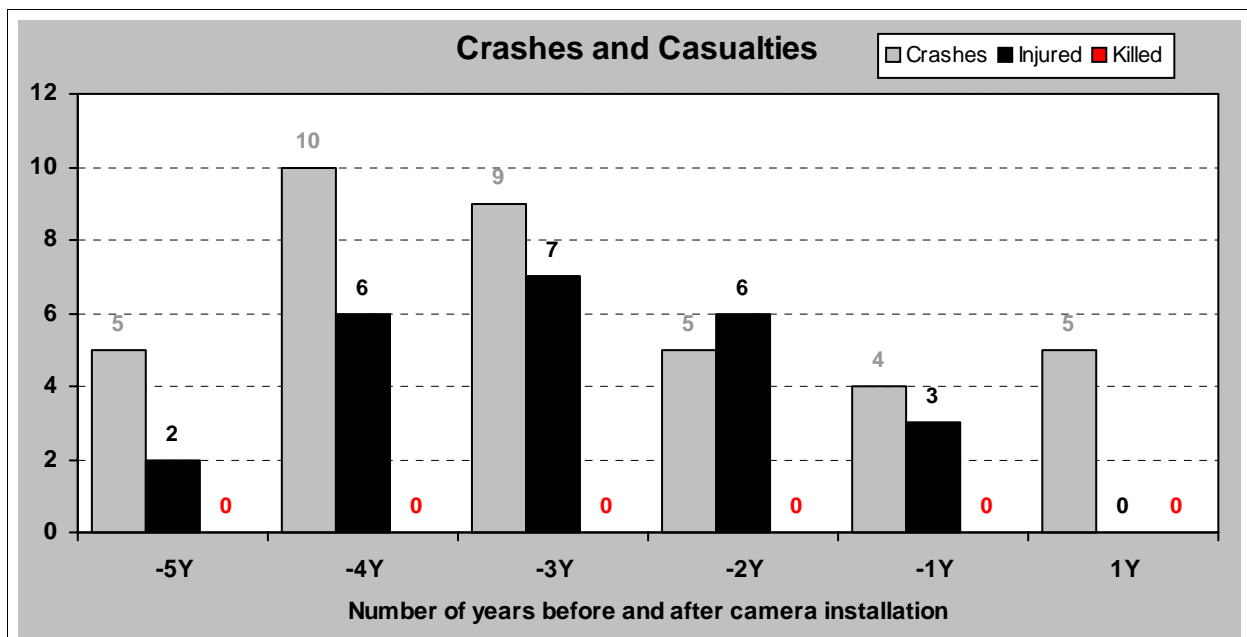
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 33 crashes resulting in 24 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 7 crashes resulting in 2 injuries and 0 fatalities.

This represents a 7 per cent reduction in the yearly average number of crashes and a 63 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 7 crashes resulting in 2 casualties at this intersection in 2011.

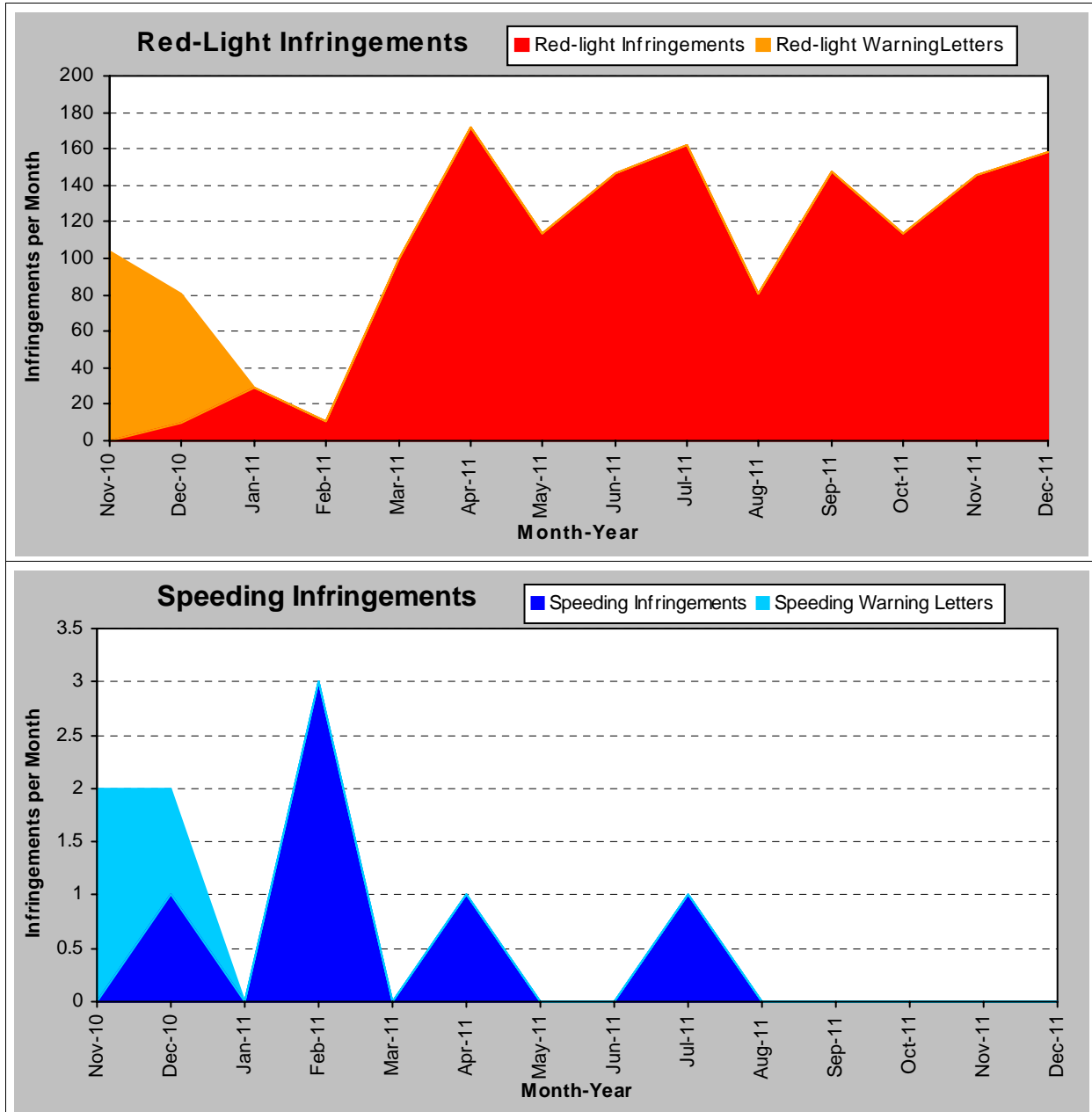




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Princes Hwy and Bay St / the Sevenways, Rockdale

The intersection was an existing wet-film red-light camera location. There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Princes Hwy and Bay St, Rockdale commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Princes Hwy and The Sevenways, Rockdale commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

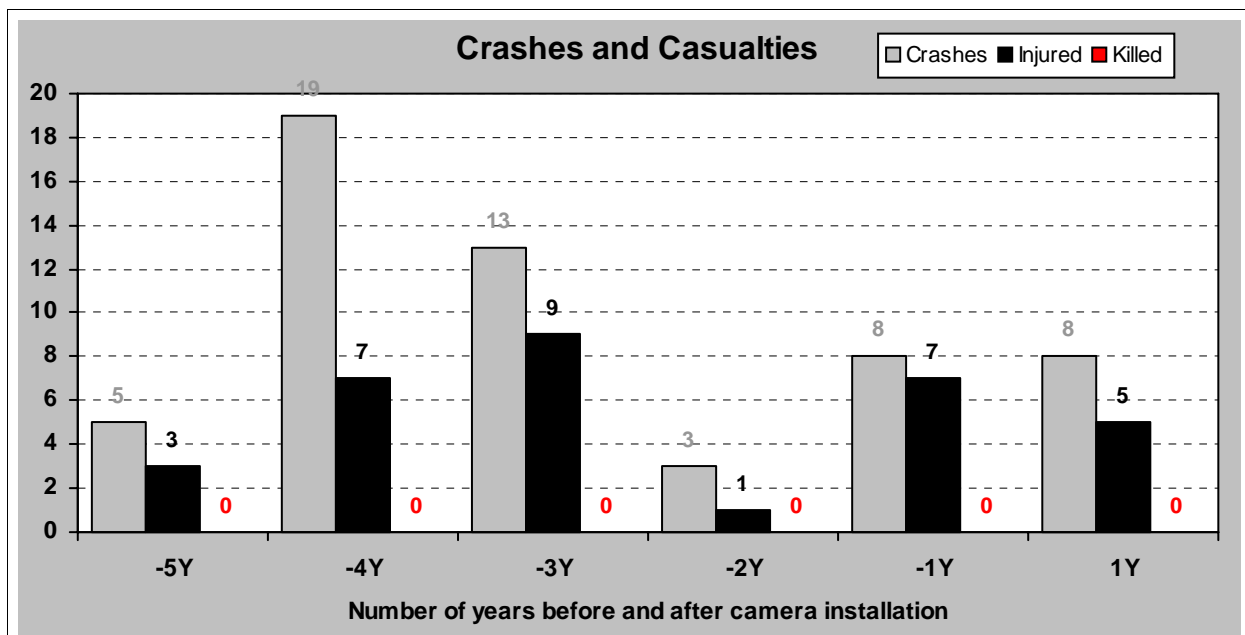
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 48 crashes resulting in 27 injuries and 0 fatalities.

In the 520 day period from installation to the end of 2011, there were 10 crashes resulting in 6 injuries and 0 fatalities.

This represents a 27 per cent reduction in the yearly average number of crashes and a 22 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

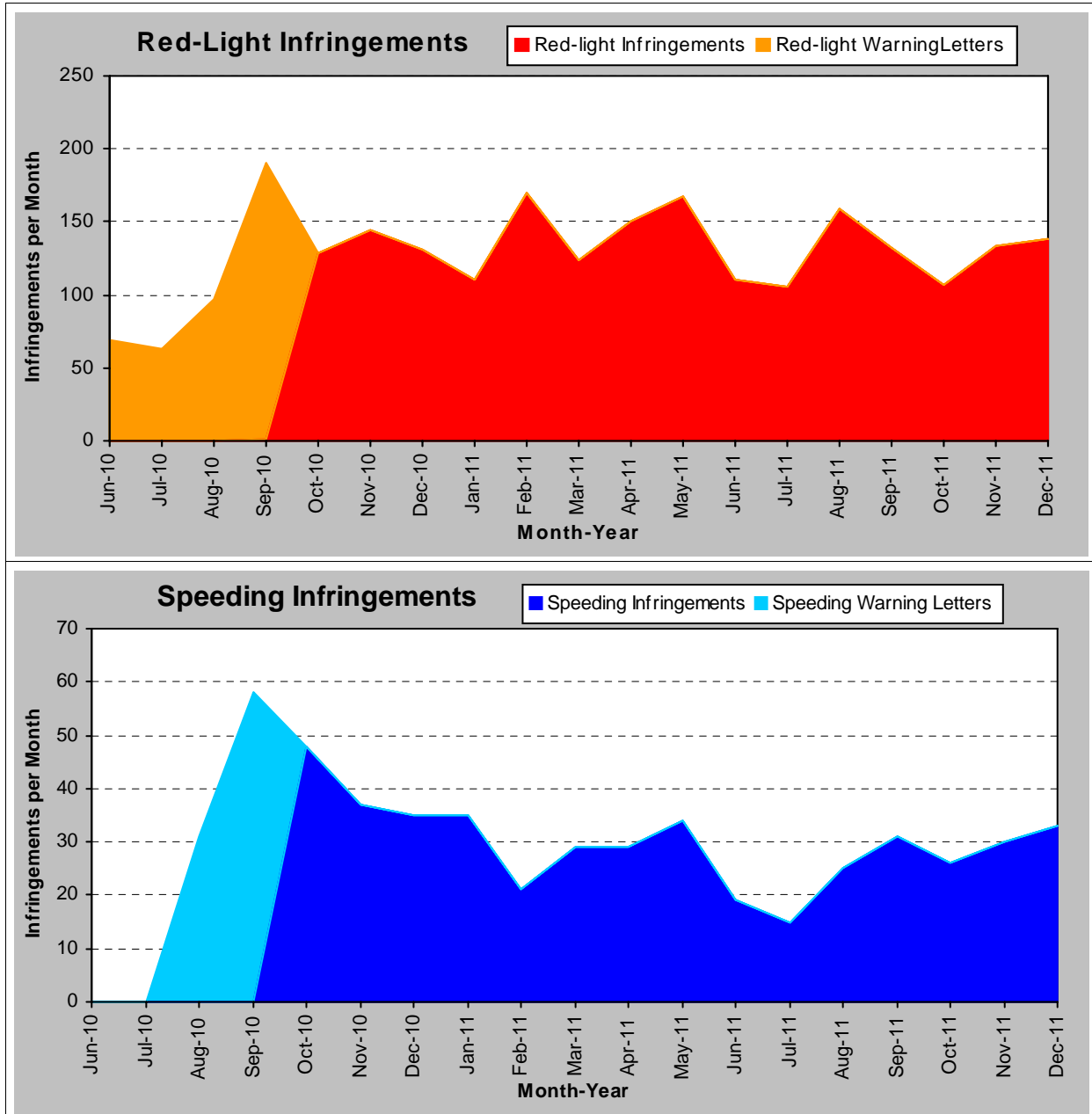
Provisional crash data shows there were 6 crashes resulting in 5 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: King Georges Rd and Moorefields Rd, Roselands

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of King Georges Rd and Moorefields Rd, Roselands commenced issuing warning letters in October 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

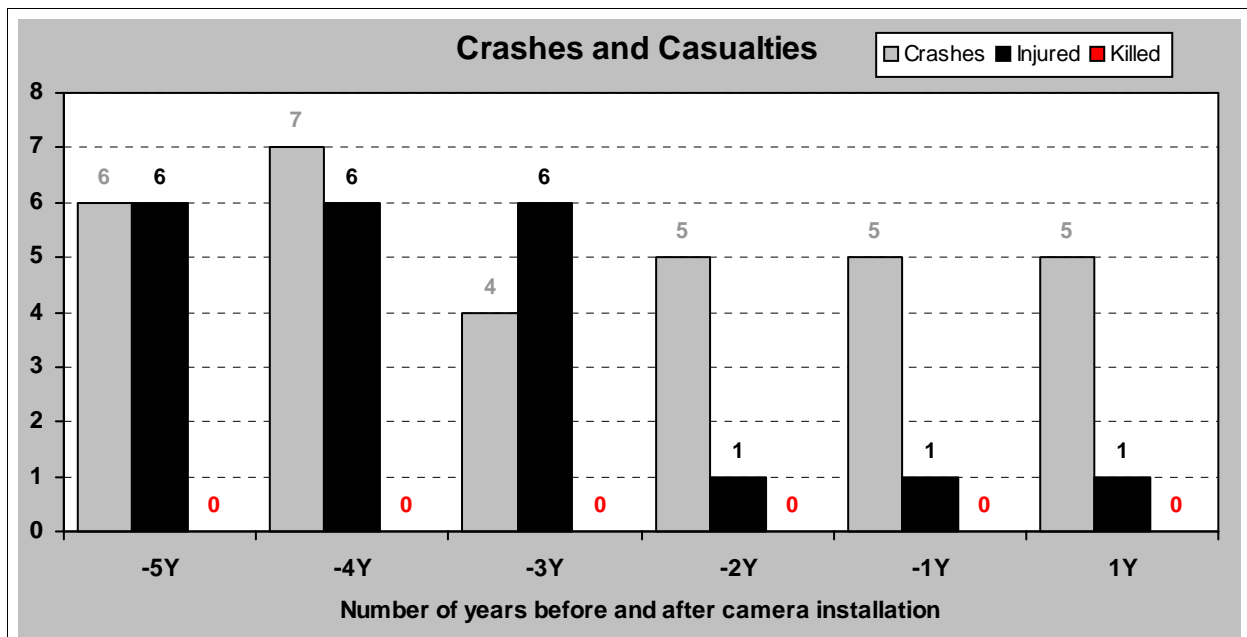
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 27 crashes resulting in 20 injuries and 0 fatalities.

In the 457 day period from installation to the end of 2011, there were 6 crashes resulting in 2 injuries and 0 fatalities.

This represents an 11 per cent reduction in the yearly average number of crashes and a 60 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

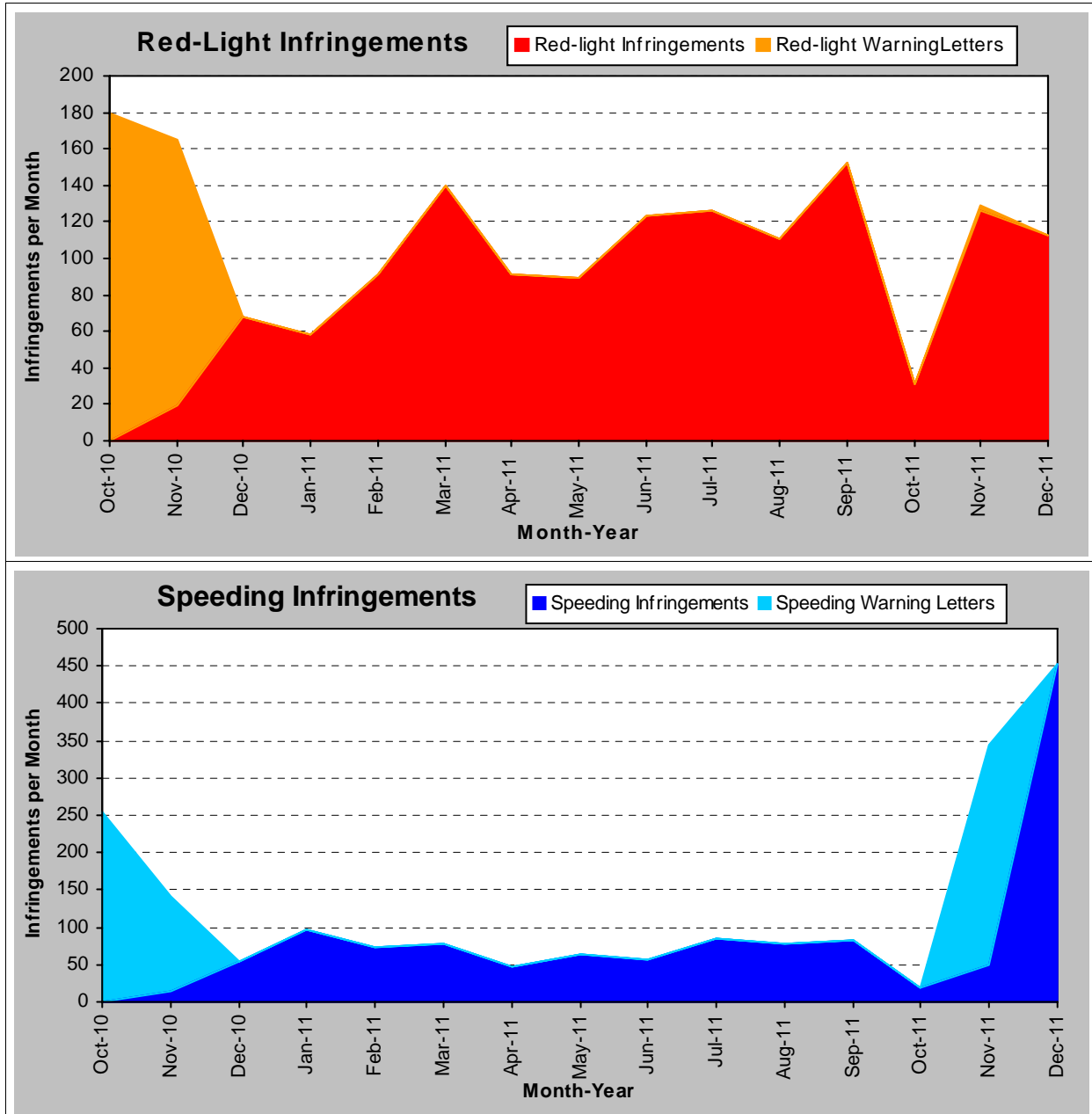
Provisional crash data shows there were 6 crashes resulting in 2 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Canterbury Rd and King Georges Rd, Roselands / Wiley Park

There are two cameras at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Canterbury Rd and King Georges Rd, Wiley Park commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

### Camera 2

The red-light speed (safety) camera at the intersection of Canterbury Rd and King Georges Rd, Roselands commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

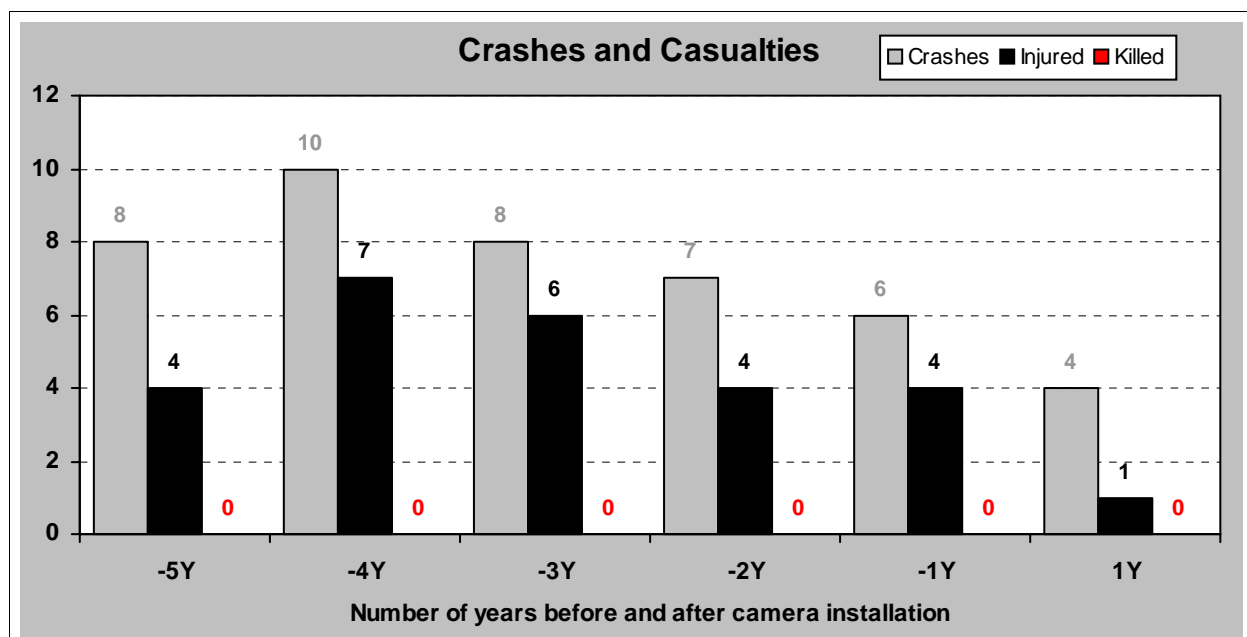
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 39 crashes resulting in 25 injuries and 0 fatalities.

In the 551 day period from installation to the end of 2011, there were 8 crashes resulting in 4 injuries and 0 fatalities.

This represents a 32 per cent reduction in the yearly average number of crashes and a 47 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

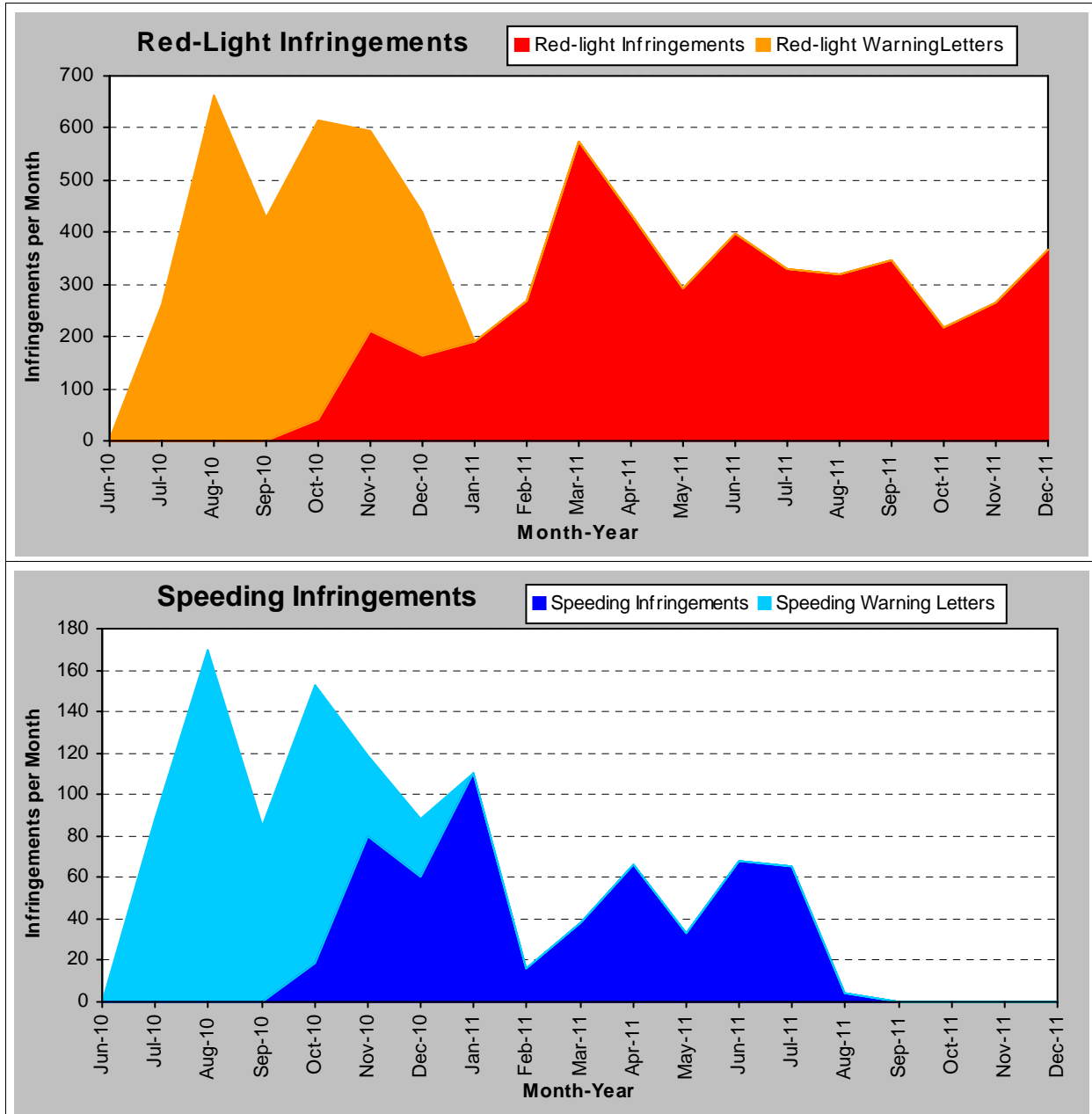
Provisional crash data shows there were 7 crashes resulting in 4 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Victoria Rd and Evans St, Rozelle

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Victoria Rd and Evans St, Rozelle commenced issuing warning letters in October 2010. The camera enforces red-light running and speeding offences.

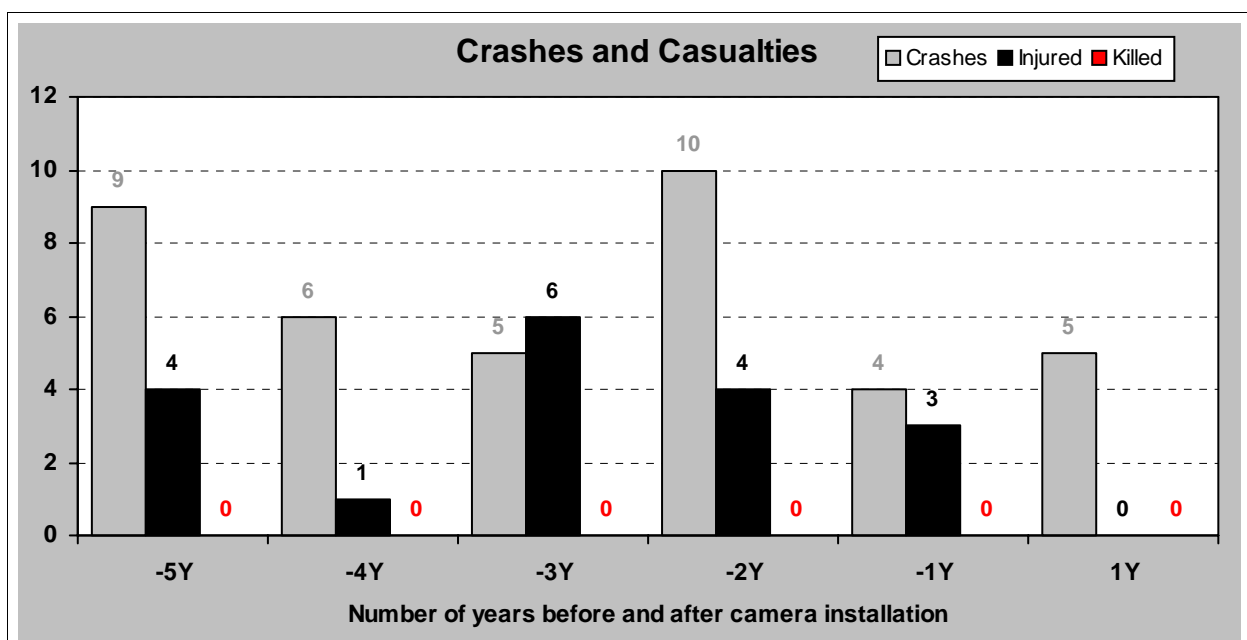
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 34 crashes resulting in 18 injuries and 0 fatalities.

In the 443 day period from installation to the end of 2011, there were 5 crashes resulting in 0 injuries and 0 fatalities.

This represents a 39 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 3 crashes resulting in 0 casualties at this intersection in 2011.

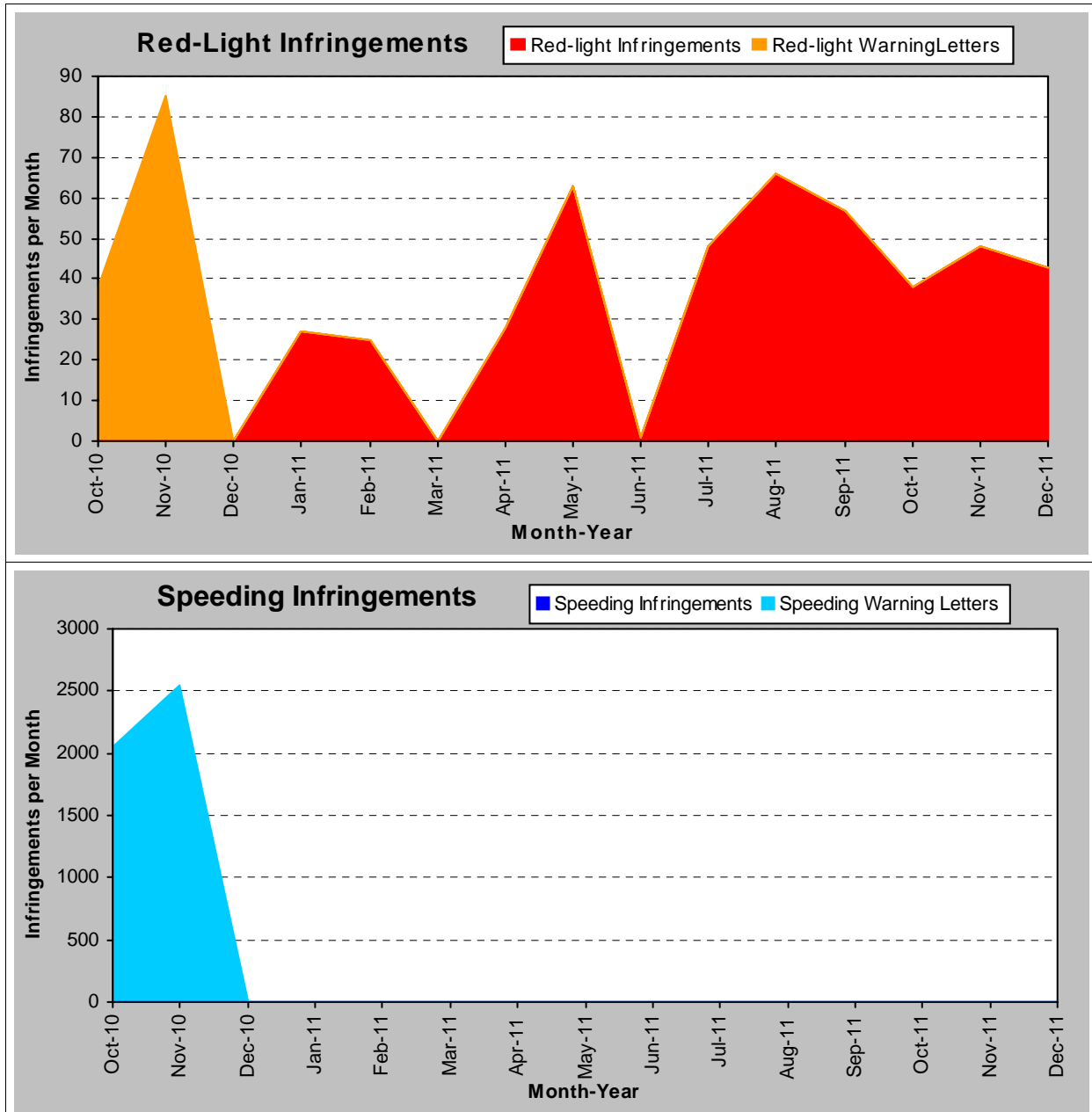




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Wellington St and Victoria Rd, Rozelle

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Wellington St and Victoria Rd, Rozelle commenced issuing warning letters in September 2010. The camera enforces red-light running only.

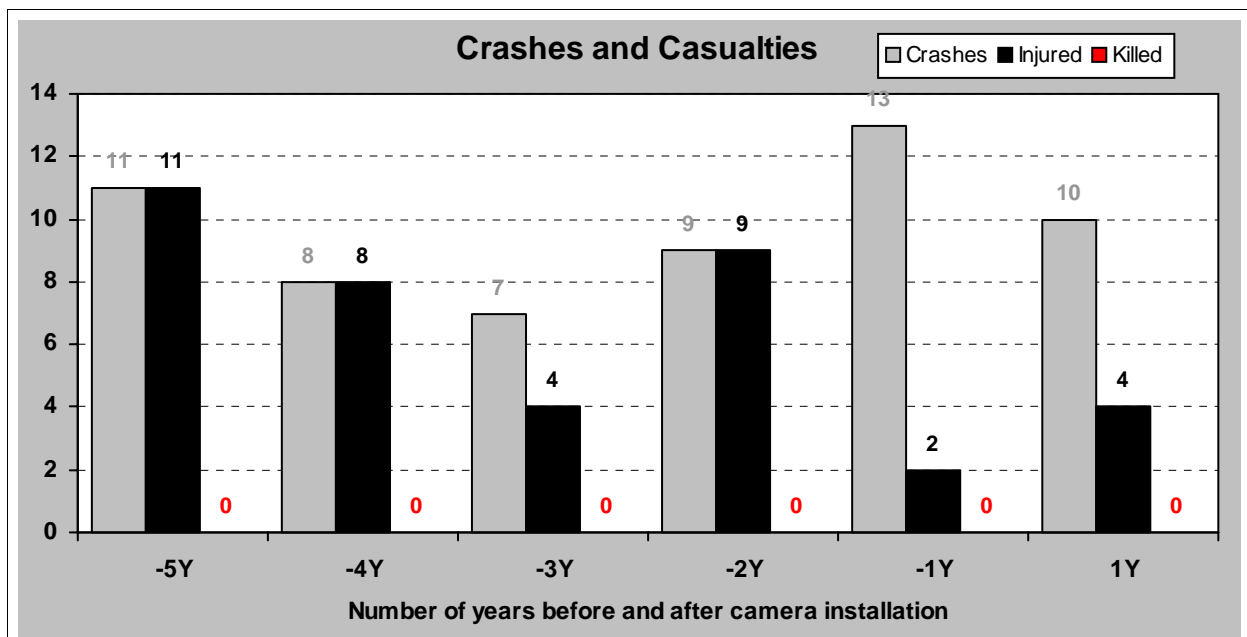
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 48 crashes resulting in 34 injuries and 0 fatalities.

In the 460 day period from installation to the end of 2011, there were 14 crashes resulting in 7 injuries and 0 fatalities.

This represents a 16 per cent increase in the yearly average number of crashes and an 18 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

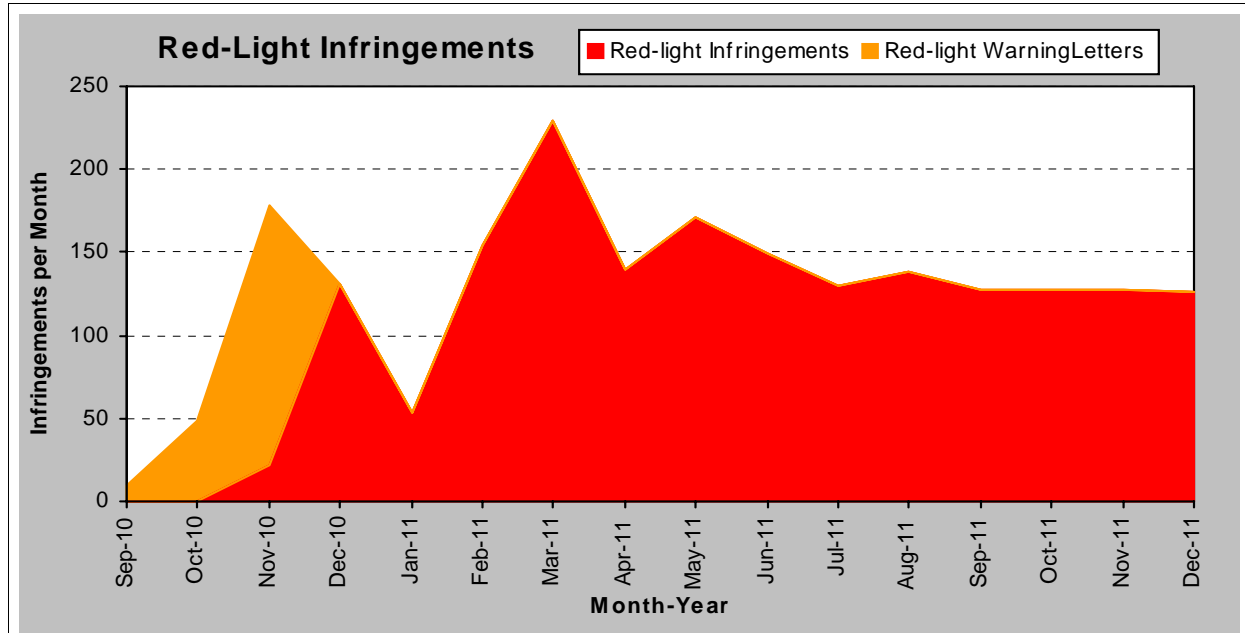
Provisional crash data shows there were 14 crashes resulting in 7 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Victoria Road and Devlin Street, Ryde

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

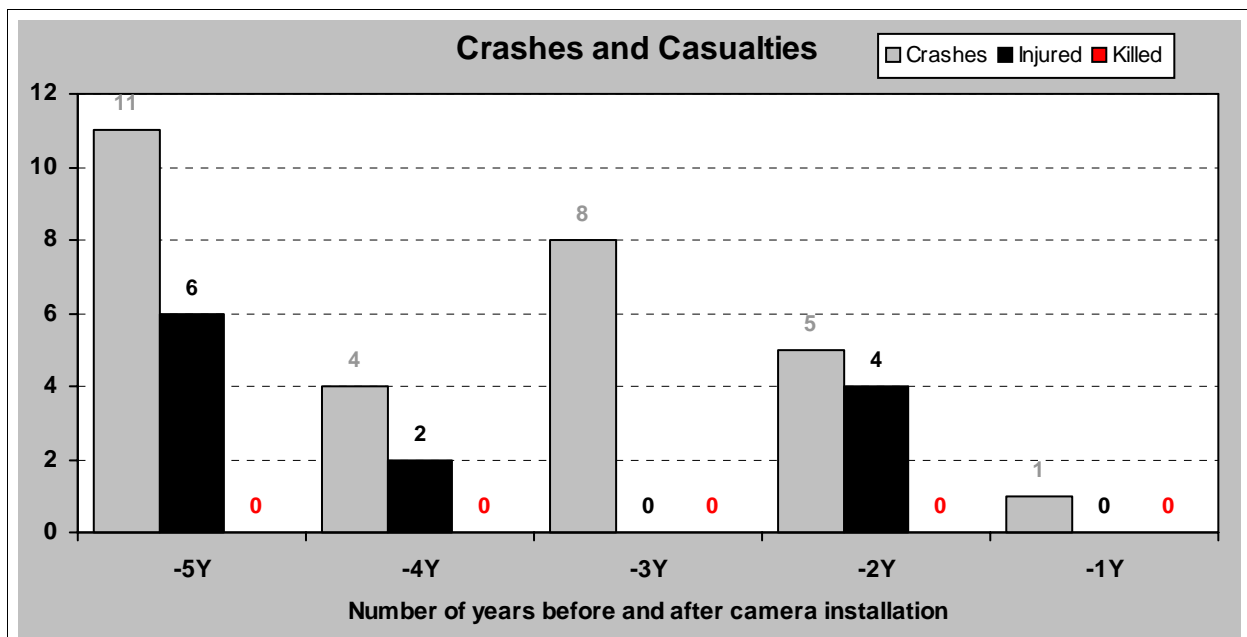
The red-light speed (safety) camera at the intersection of Victoria Road and Devlin Street, Ryde commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 29 crashes resulting in 12 injuries and 0 fatalities.

In the 188 day period from installation to the end of 2011, there were 2 crashes resulting in 0 injuries and 0 fatalities.

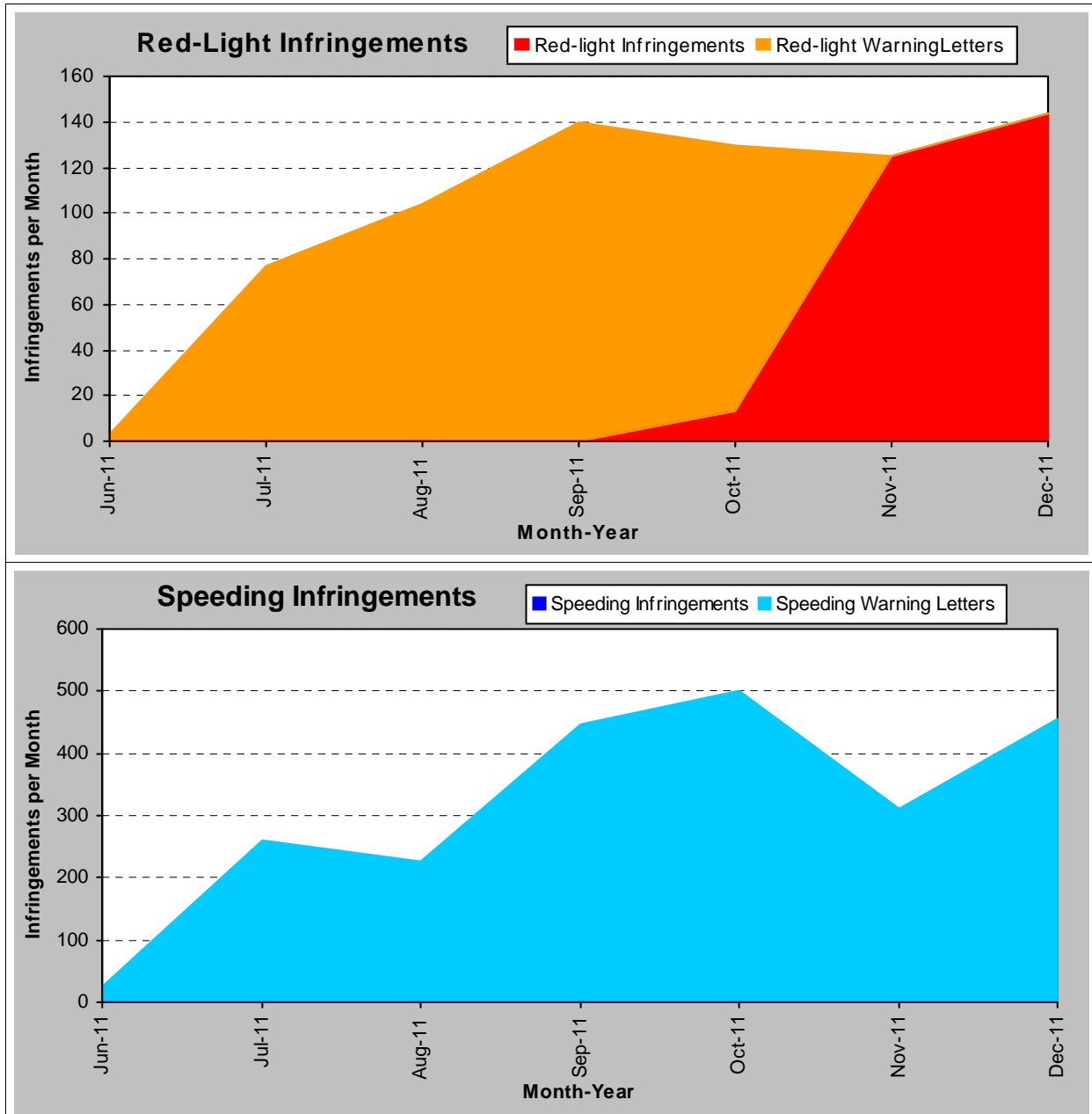
This represents a 33 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Silverwater Rd and M4 East bound on ramp, Silverwater

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Silverwater Rd and M4 East bound on ramp, Silverwater commenced issuing warning letters in June 2010. The camera enforces red-light running, and is operating in warning mode for speeding offences.

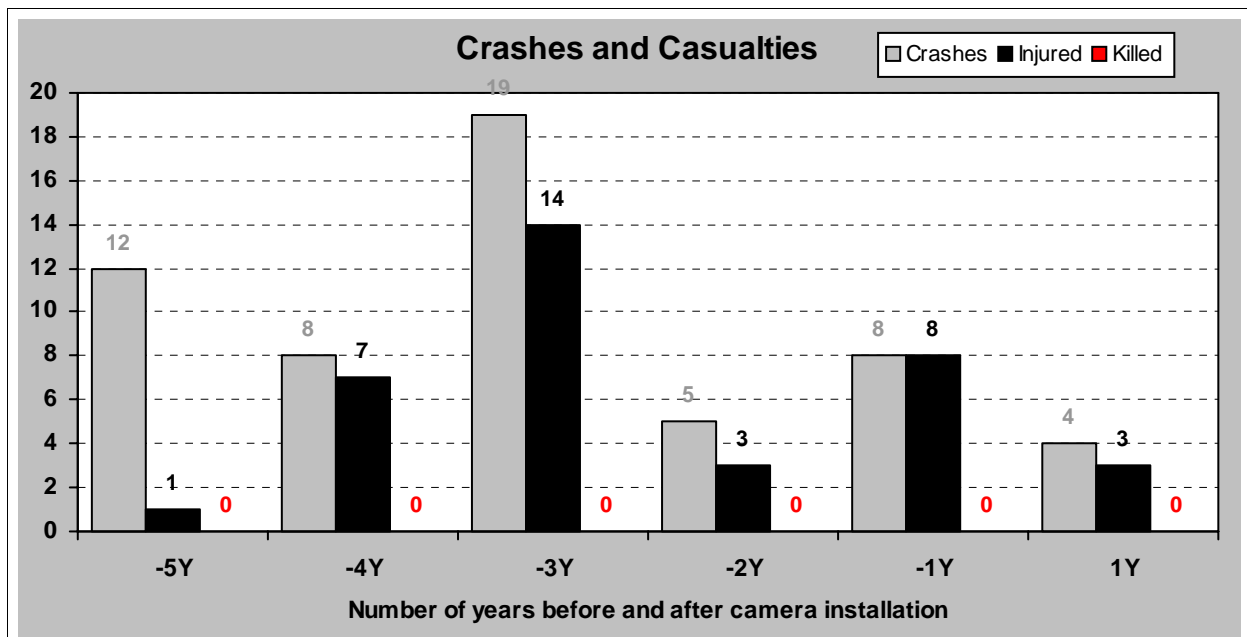
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 52 crashes resulting in 33 injuries and 0 fatalities.

In the 551 day period from installation to the end of 2011, there were 6 crashes resulting in 5 injuries and 0 fatalities.

This represents a 62 per cent reduction in the yearly average number of crashes and a 50 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

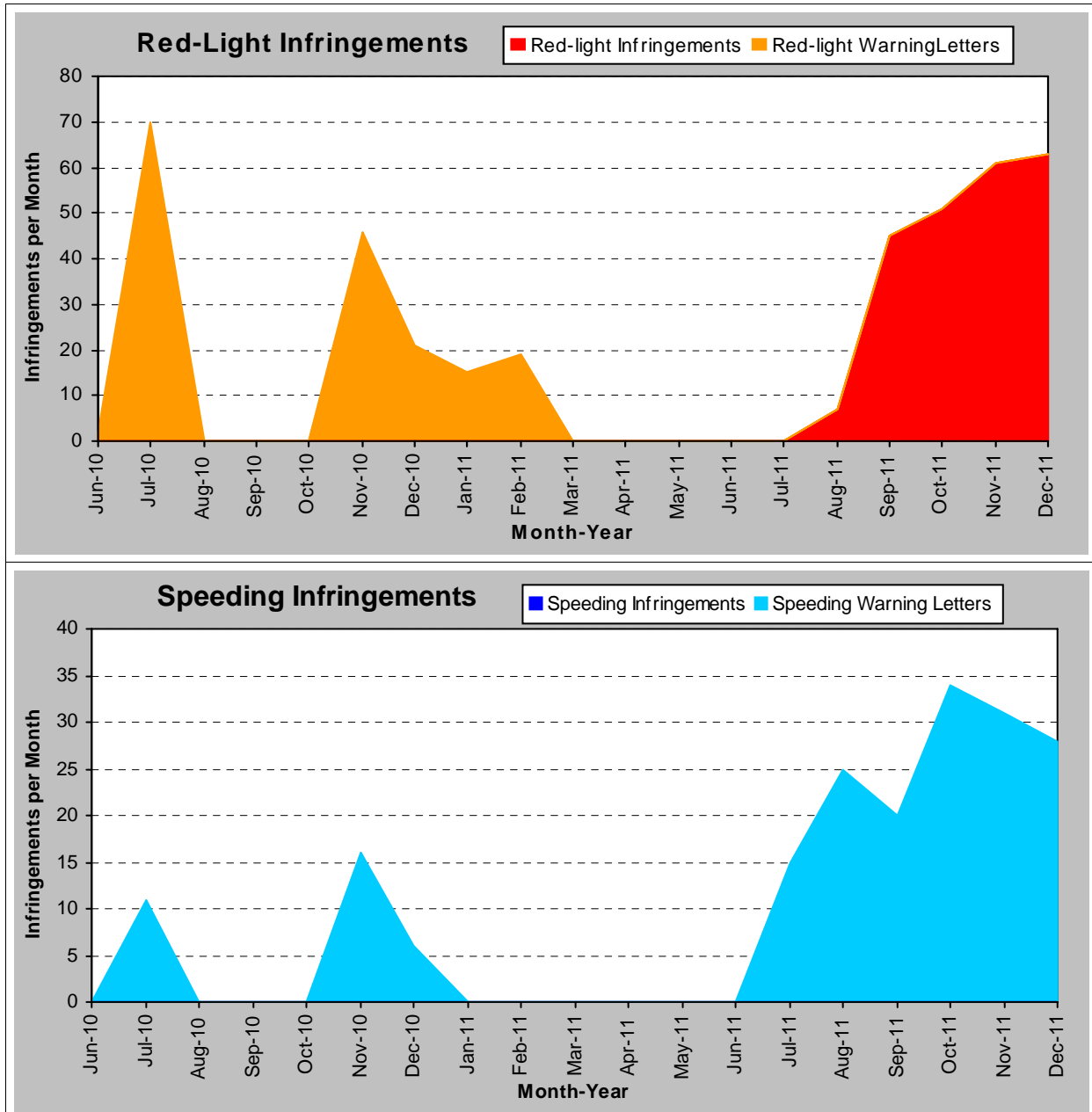
Provisional crash data shows there were 5 crashes resulting in 4 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Victoria St and Hassall St, Smithfield

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Victoria St and Hassall St, Smithfield commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

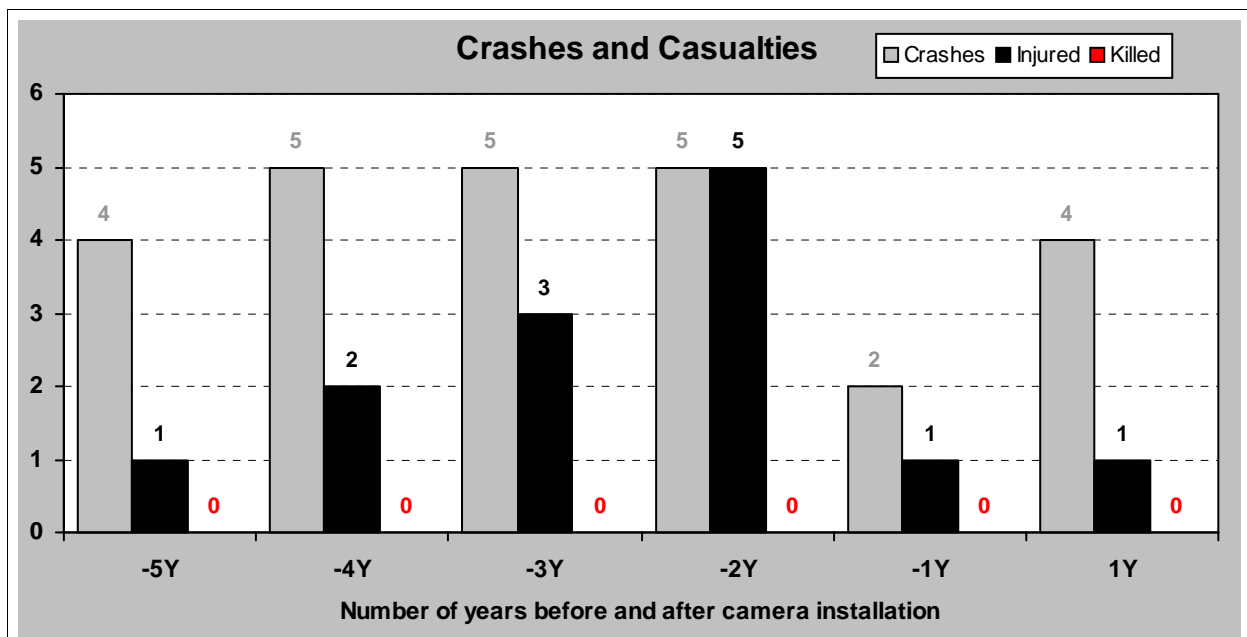
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 21 crashes resulting in 12 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 4 crashes resulting in 1 injury and 0 fatalities.

This represents a 16 per cent reduction in the yearly average number of crashes and a 63 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 4 crashes resulting in one casualty at this intersection in 2011.

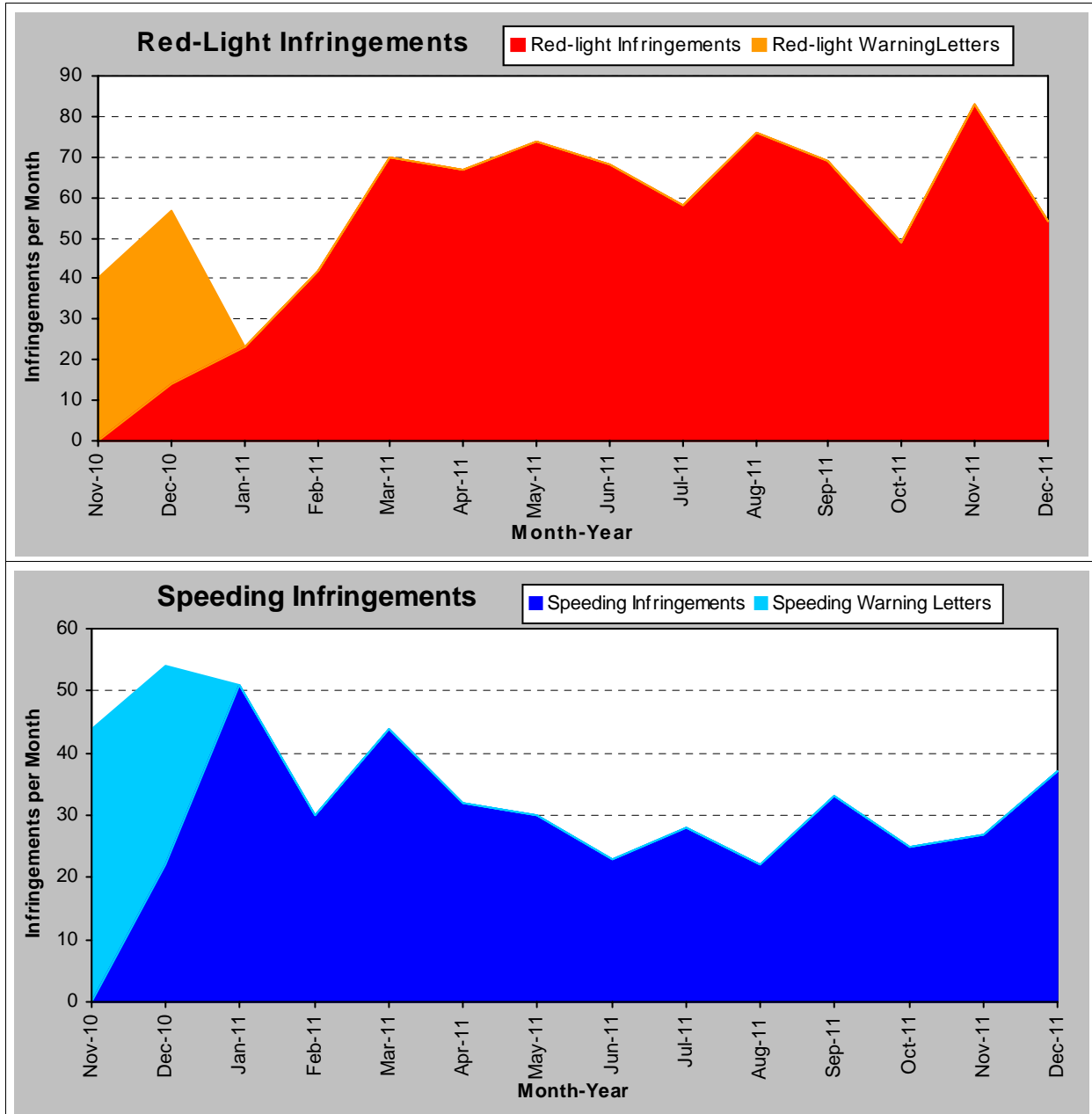




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Parker St and Jamison Rd, South Penrith

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Parker St and Jamison Rd, South Penrith commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

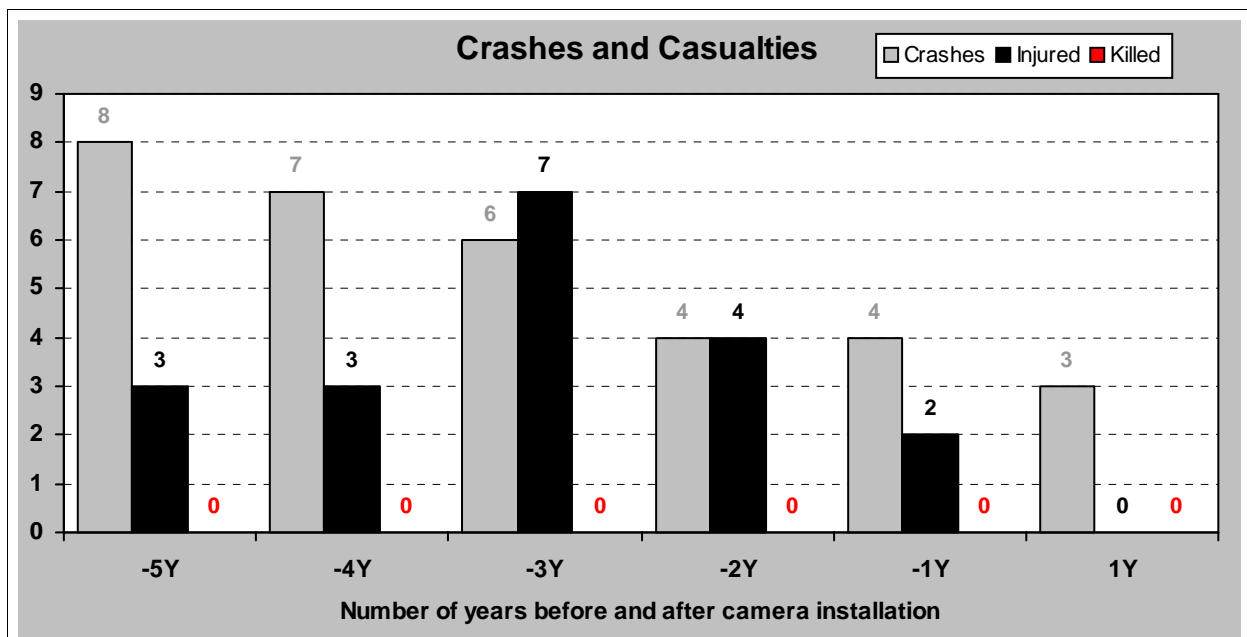
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 29 crashes resulting in 19 injuries and 0 fatalities.

In the 416 day period from installation to the end of 2011, there were 4 crashes resulting in 0 injuries and 0 fatalities.

This represents a 39 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

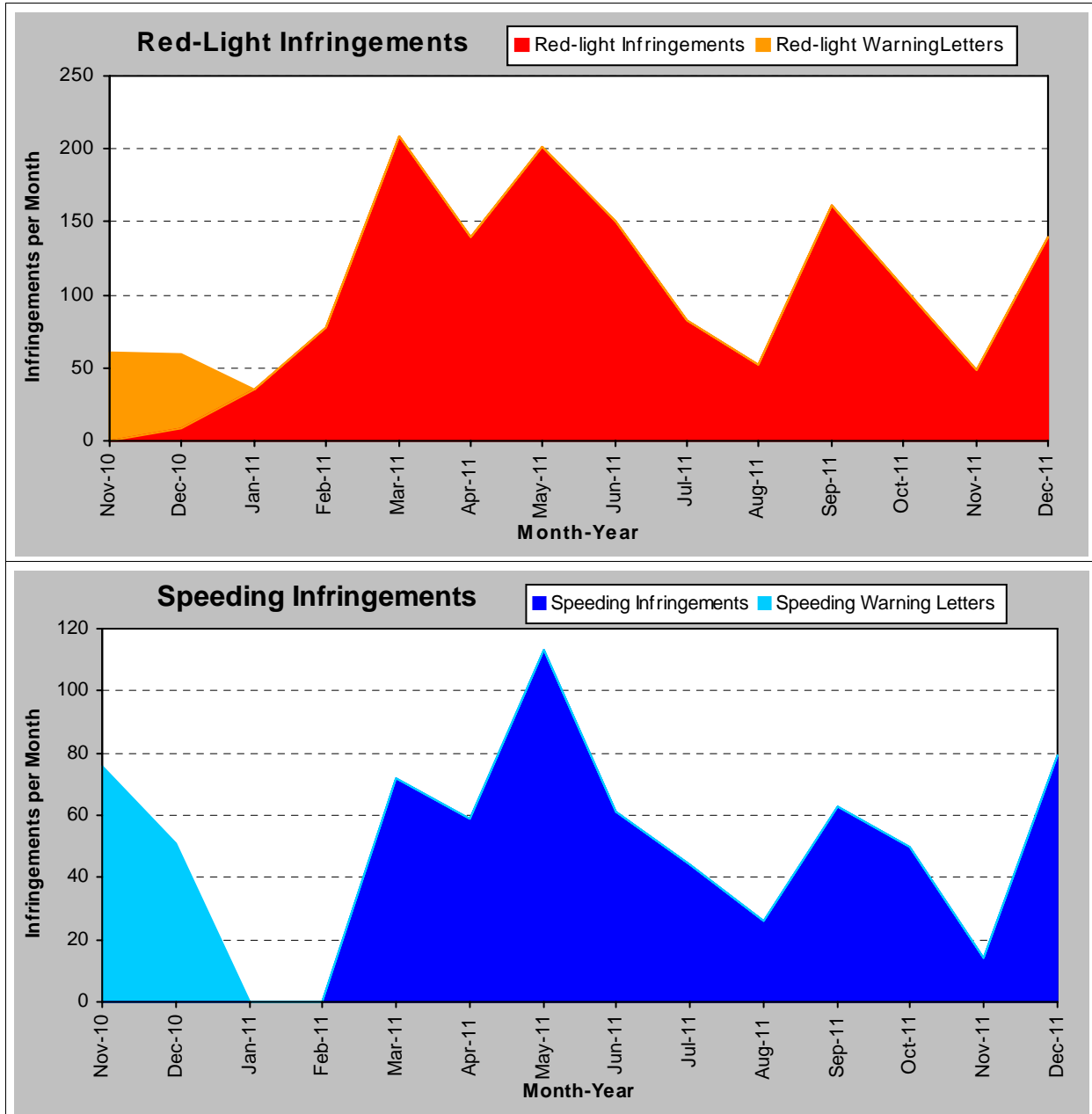
Provisional crash data shows there were 4 crashes resulting in 0 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Cumberland Highway and Old Prospect Road, South Wentworthville

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

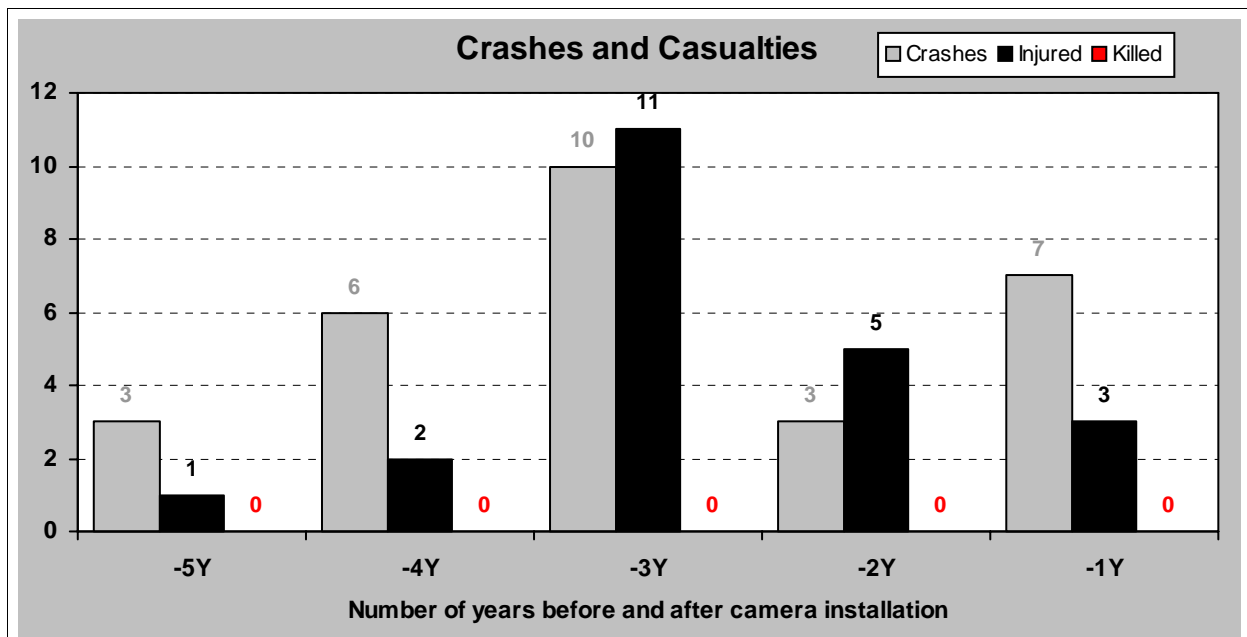
The red-light speed (safety) camera at the intersection of Cumberland Highway and Old Prospect Road, South Wentworthville commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 29 crashes resulting in 22 injuries and 0 fatalities.

In the 269 day period from installation to the end of 2011, there were 3 crashes resulting in 2 injuries and 0 fatalities.

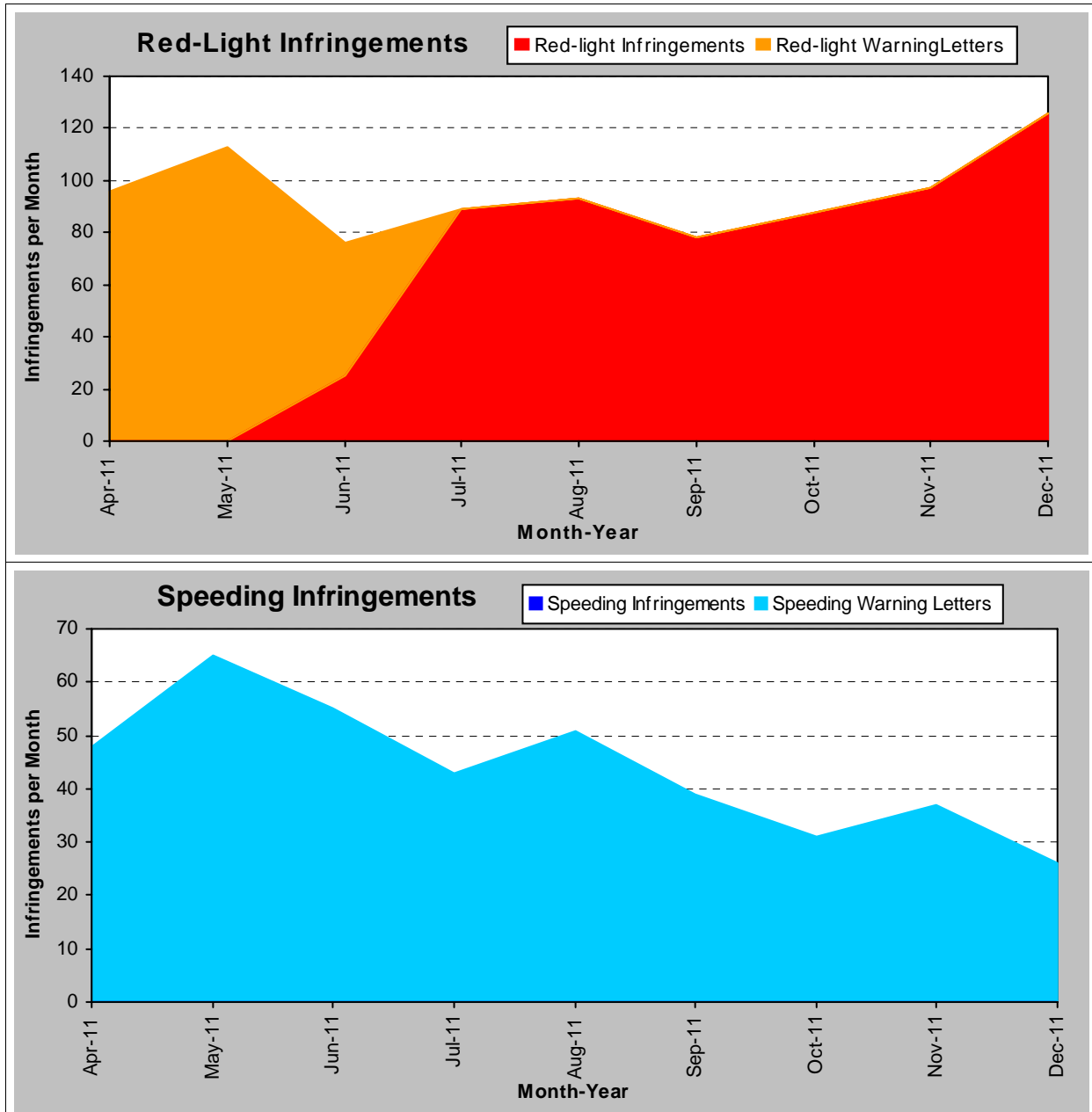
This represents a 30 per cent reduction in the yearly average number of crashes and a 38 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

**Red-light speed (safety) camera location: Great Western Hwy and Charles Hackett Dr / Pages Rd, St Marys**

There are two cameras at the intersection.

Camera 1

The red-light speed (safety) camera at the intersection of Great Western Hwy and Charles Hackett Dr, St Marys commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

Camera 2

The red-light speed (safety) camera at the intersection of Great Western Hwy and Pages Rd, St Marys commenced issuing warning letters in July 2010. The camera enforces red-light running and speeding offences.

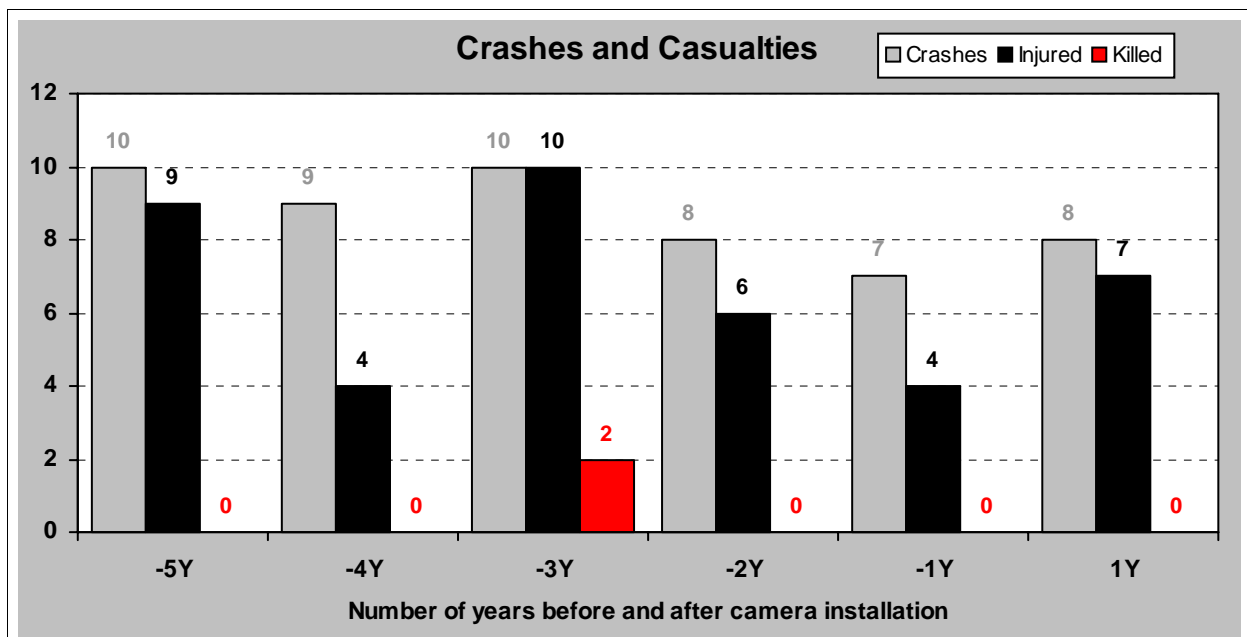
**Crashes at safety camera location**

In the five years prior to the installation of the red-light speed (safety) camera there were 44 crashes resulting in 33 injuries and 2 fatalities.

In the 542 day period from installation to the end of 2011, there were 14 crashes resulting in 9 injuries and 0 fatalities.

This represents a 7 per cent increase in the yearly average number of crashes and a 13 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

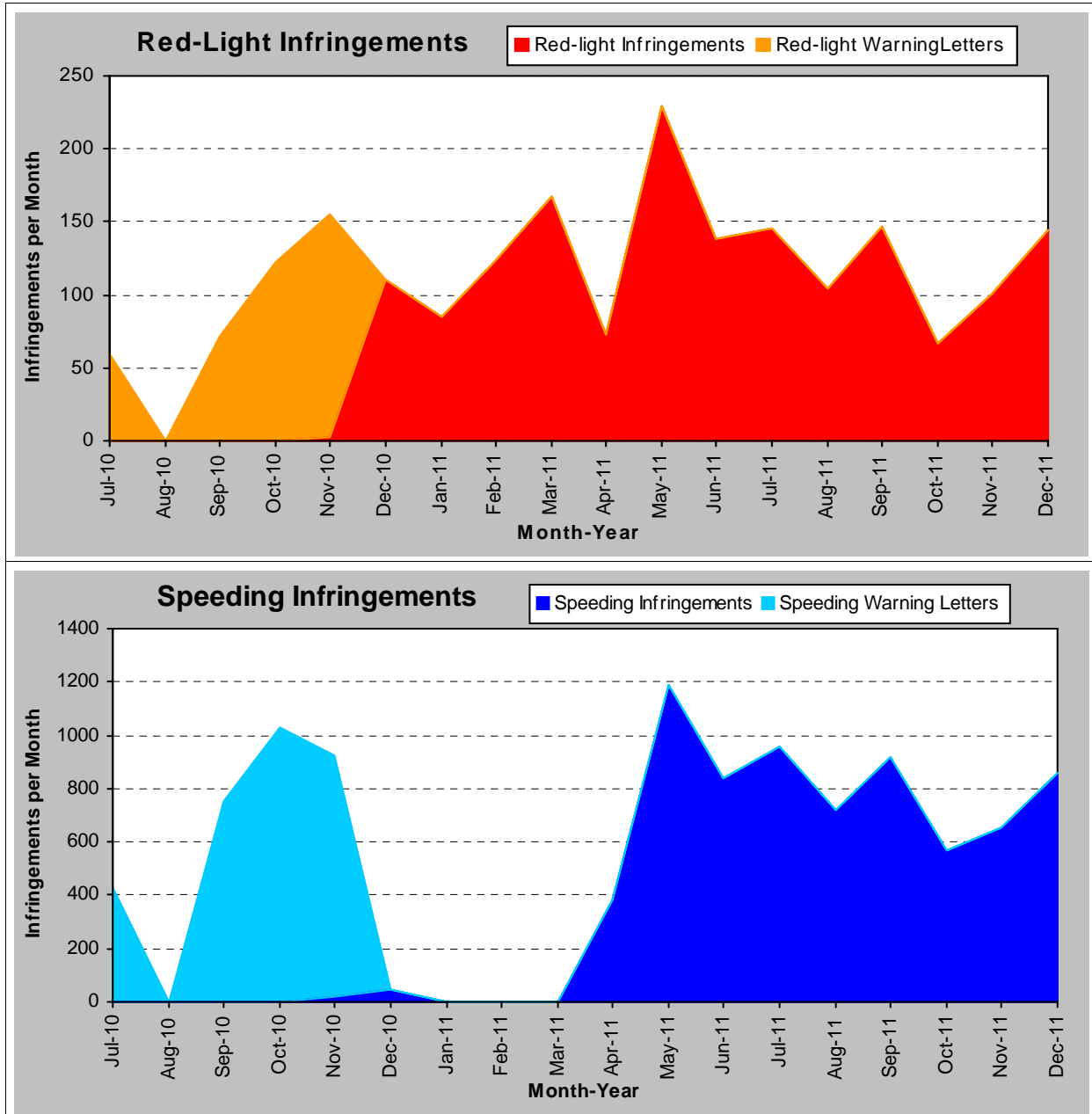
Provisional crash data shows there were 11 crashes resulting in 8 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Cleveland St and South Dowling St, Surry Hills

There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Cleveland St and South Dowling St, Surry Hills commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

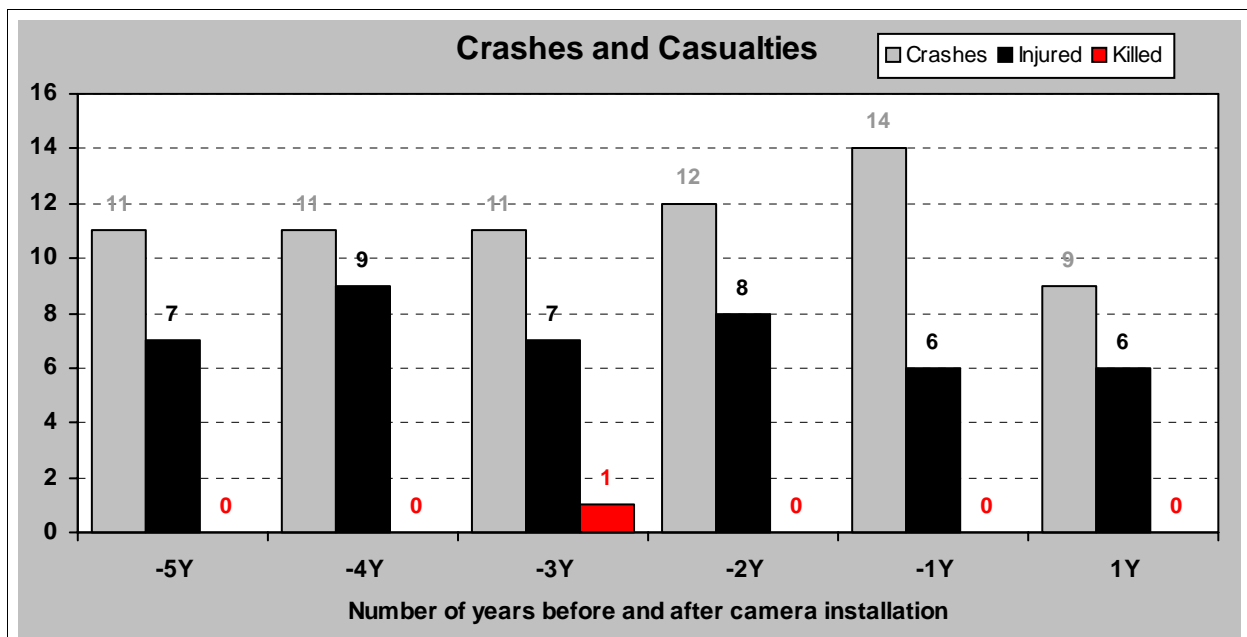
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 59 crashes resulting in 37 injuries and 1 fatality.

In the 550 day period from installation to the end of 2011, there were 13 crashes resulting in 12 injuries and 0 fatalities.

This represents a 27 per cent reduction in the yearly average number of crashes and a 5 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 10 crashes resulting in 12 casualties at this intersection in 2011.

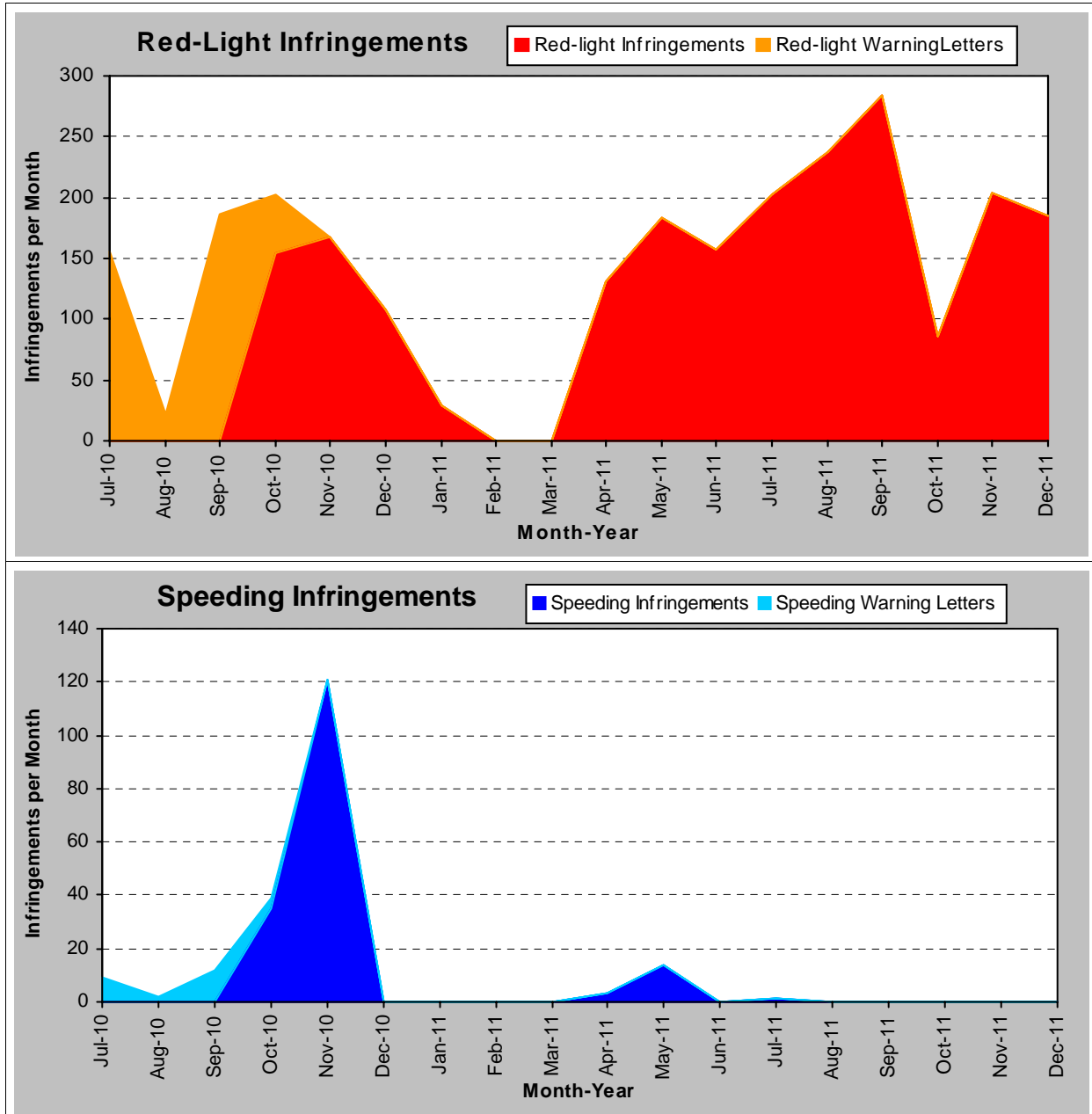




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in casualties, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Pennant Hills Rd and Parkes St, Thornleigh

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Pennant Hills Rd and Parkes St, Thornleigh commenced issuing warning letters in December 2010. The camera enforces red-light running and speeding offences.

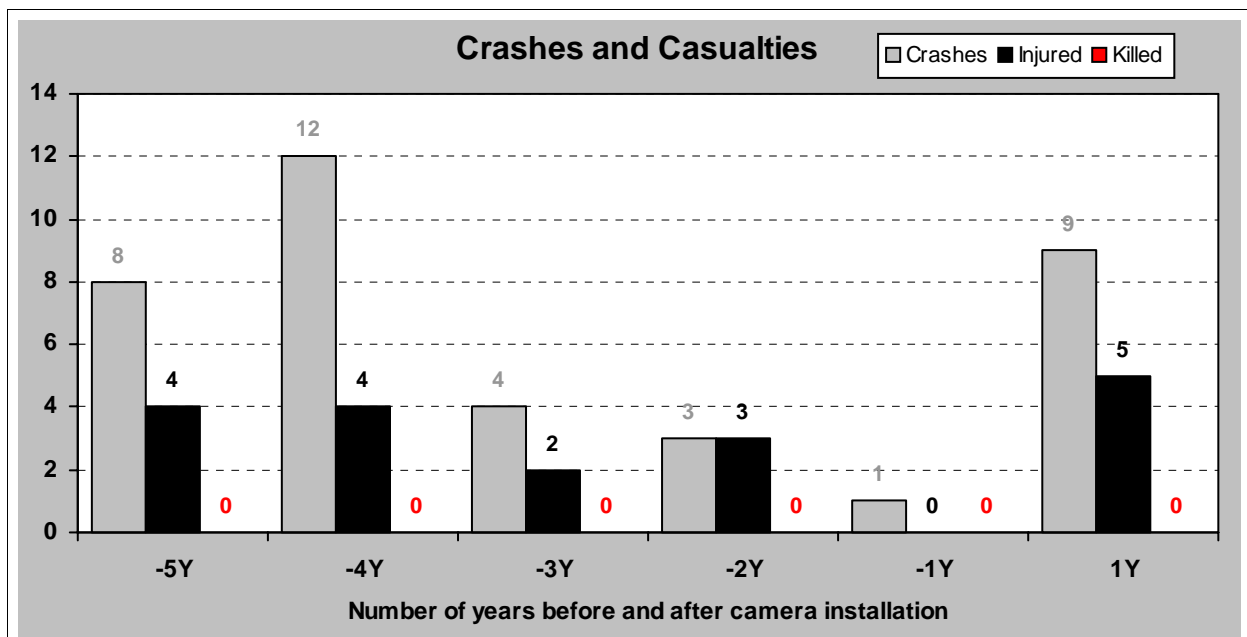
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 28 crashes resulting in 13 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 9 crashes resulting in 5 injuries and 0 fatalities.

This represents a 54 per cent increase in the yearly average number of crashes and an 84 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

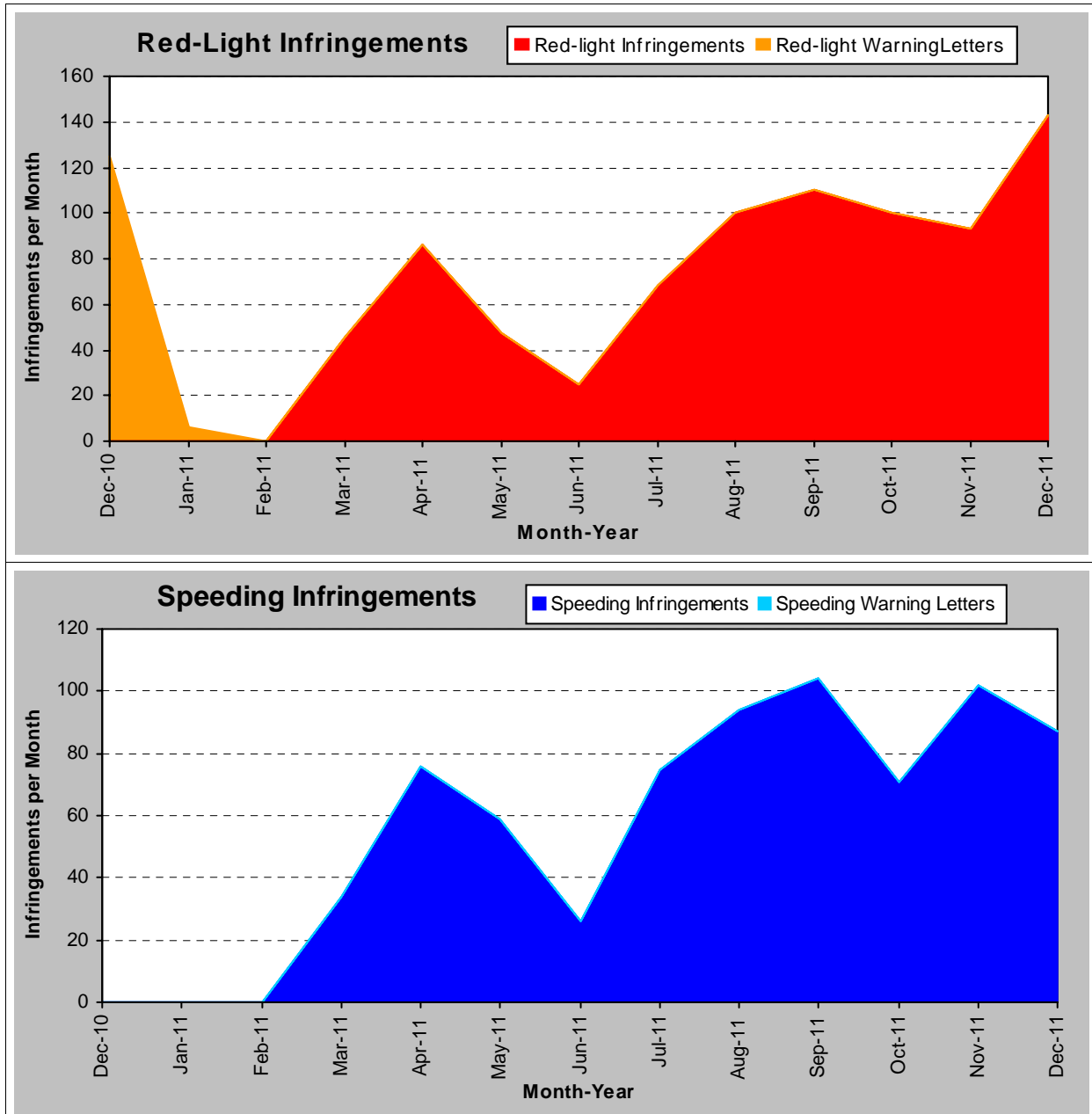
Provisional crash data shows there were 9 crashes resulting in 5 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Wattle Street and William Henry Street, Ultimo

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

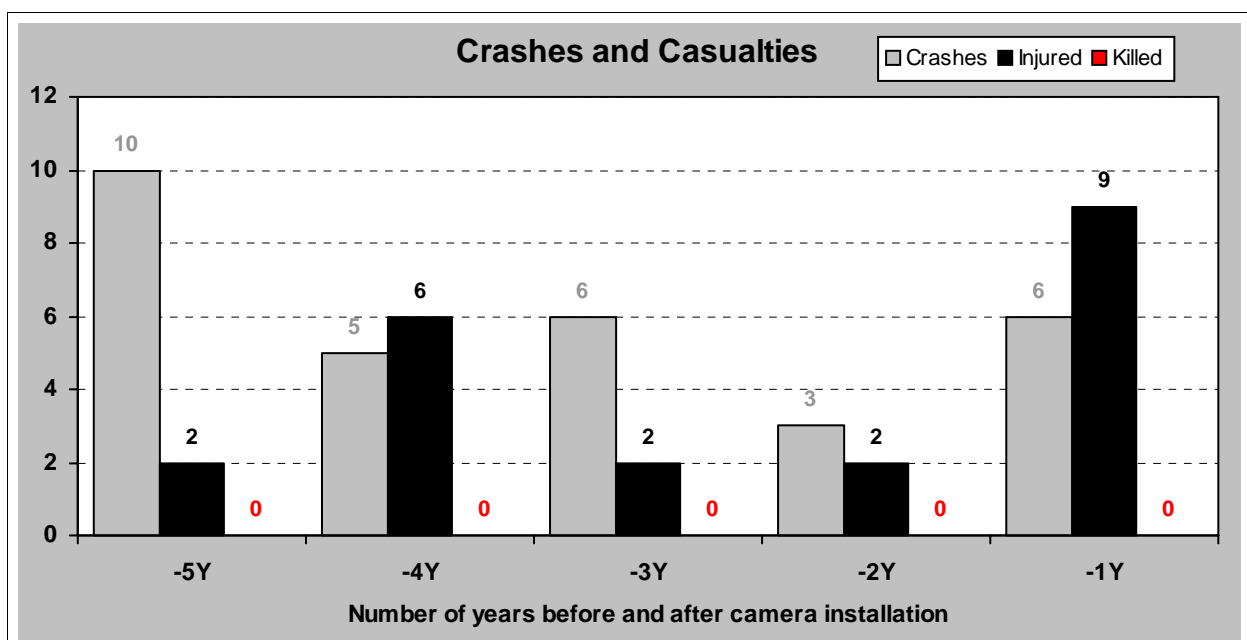
The red-light speed (safety) camera at the intersection of Wattle Street and William Henry Street, Ultimo commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 30 crashes resulting in 21 injuries and 0 fatalities.

In the 205 day period from installation to the end of 2011, there was 1 crash resulting in 0 injuries and 0 fatalities.

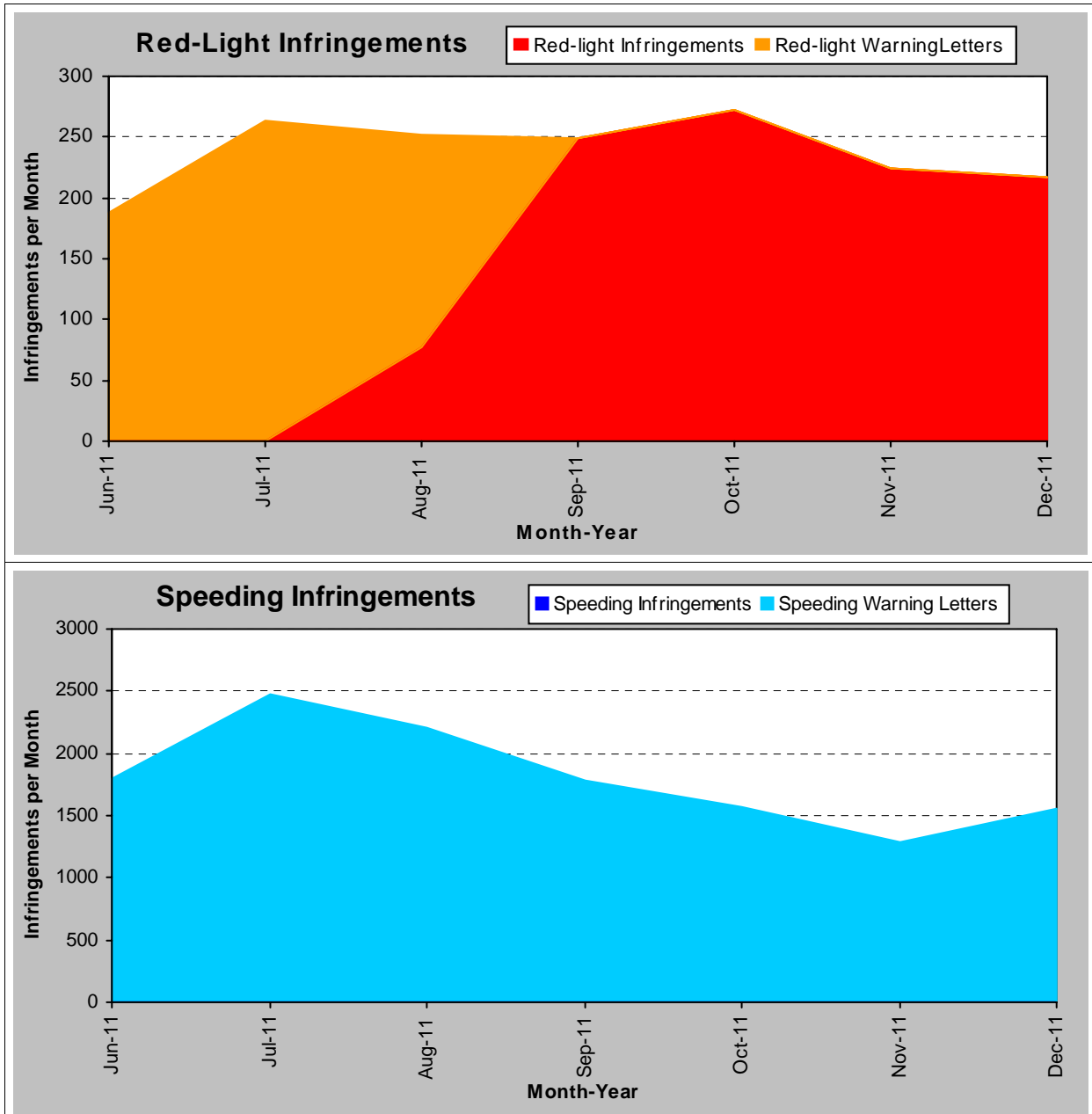
This represents a 70 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Princes Highway and Five Islands Road, Unanderra

There is one camera at the intersection.

### Camera 1

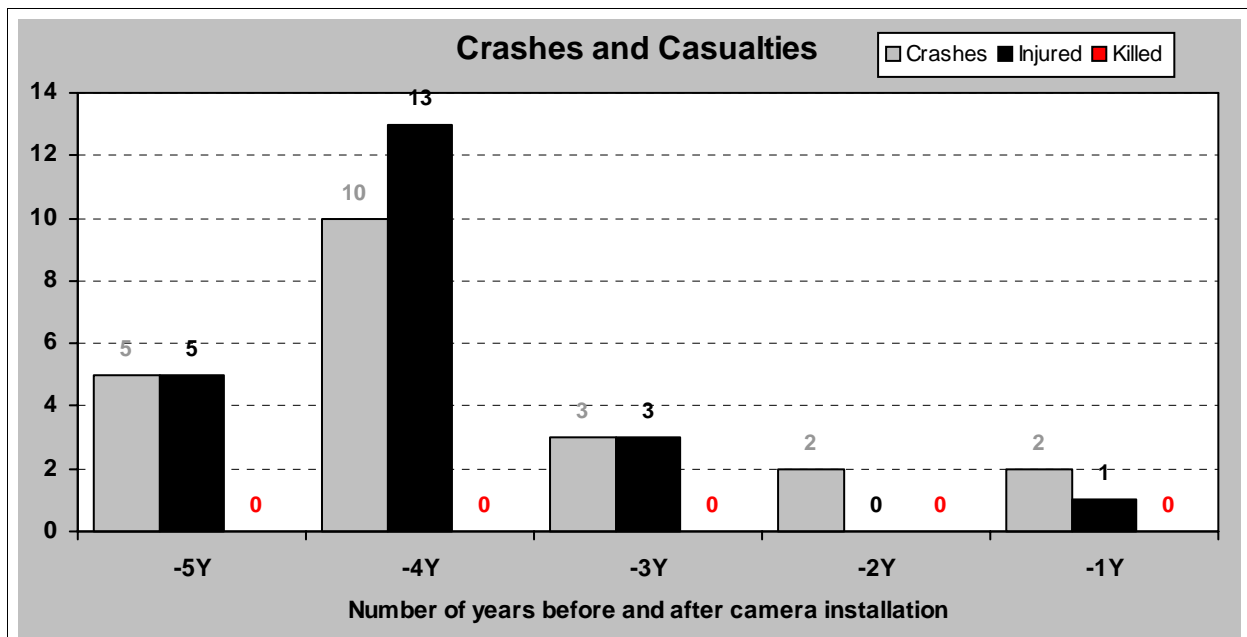
The red-light speed (safety) camera at the intersection of Princes Highway and Five Islands Road, Unanderra commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 22 crashes resulting in 22 injuries and 0 fatalities.

In the 264 day period from installation to the end of 2011, there was 1 crash resulting in 1 injury and 0 fatalities.

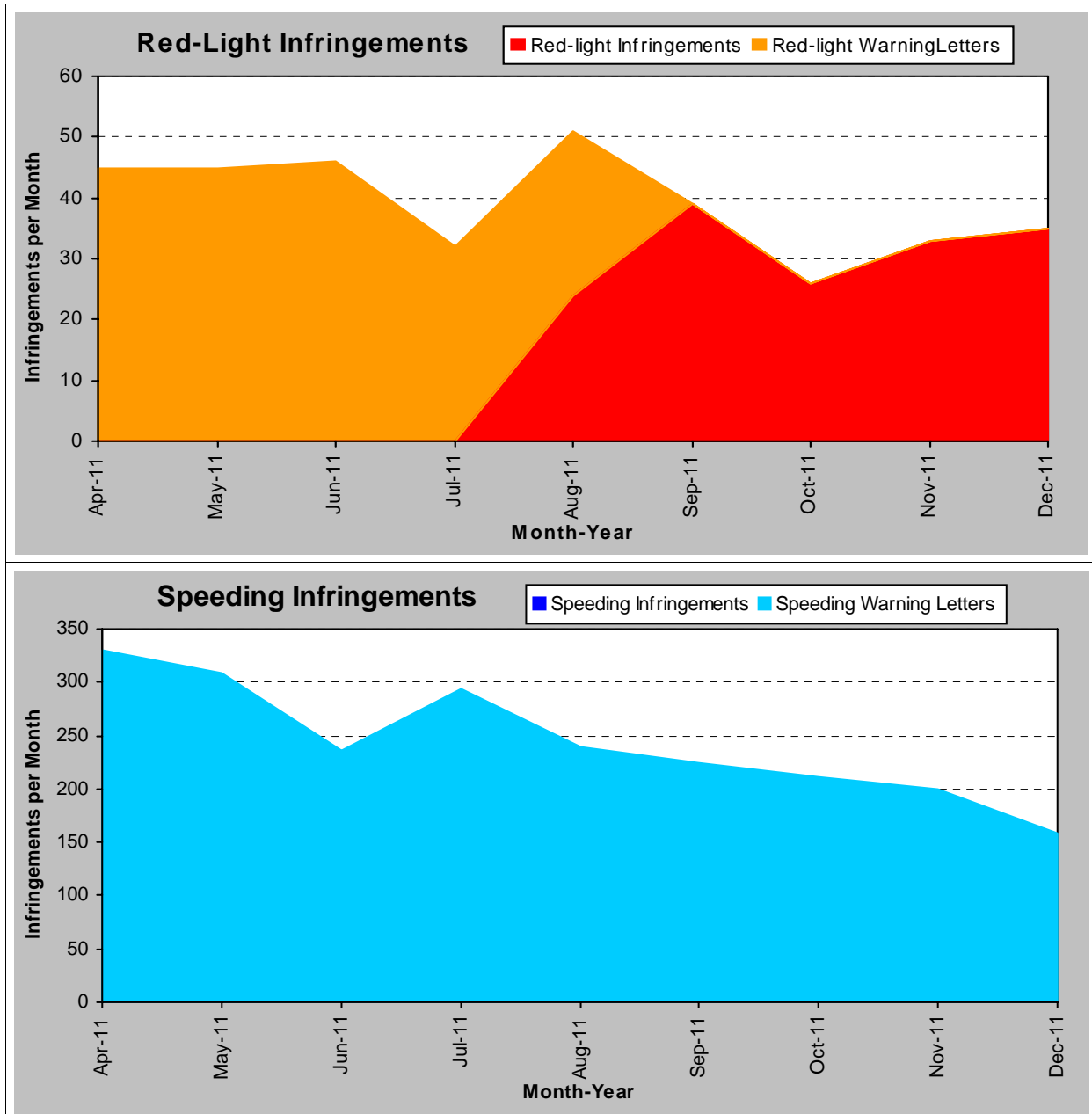
This represents a 69 per cent reduction in the yearly average number of crashes and a 69 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Hume Hwy and Bigge St, Warwick Farm

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Hume Hwy and Bigge St, Warwick Farm commenced issuing warning letters in November 2010. The camera enforces red-light running and speeding offences.

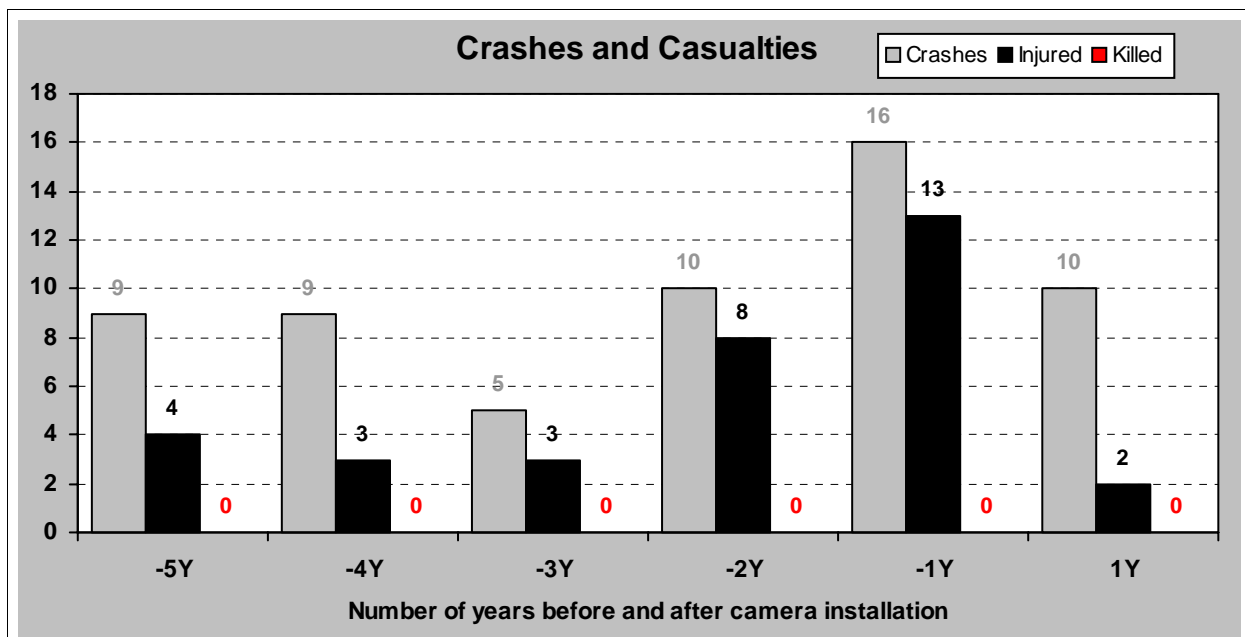
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 49 crashes resulting in 31 injuries and 0 fatalities.

In the 412 day period from installation to the end of 2011, there were 11 crashes resulting in 2 injuries and 0 fatalities.

This represents a 1 per cent reduction in the yearly average number of crashes and a 71 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 10 crashes resulting in one casualty at this intersection in 2011.

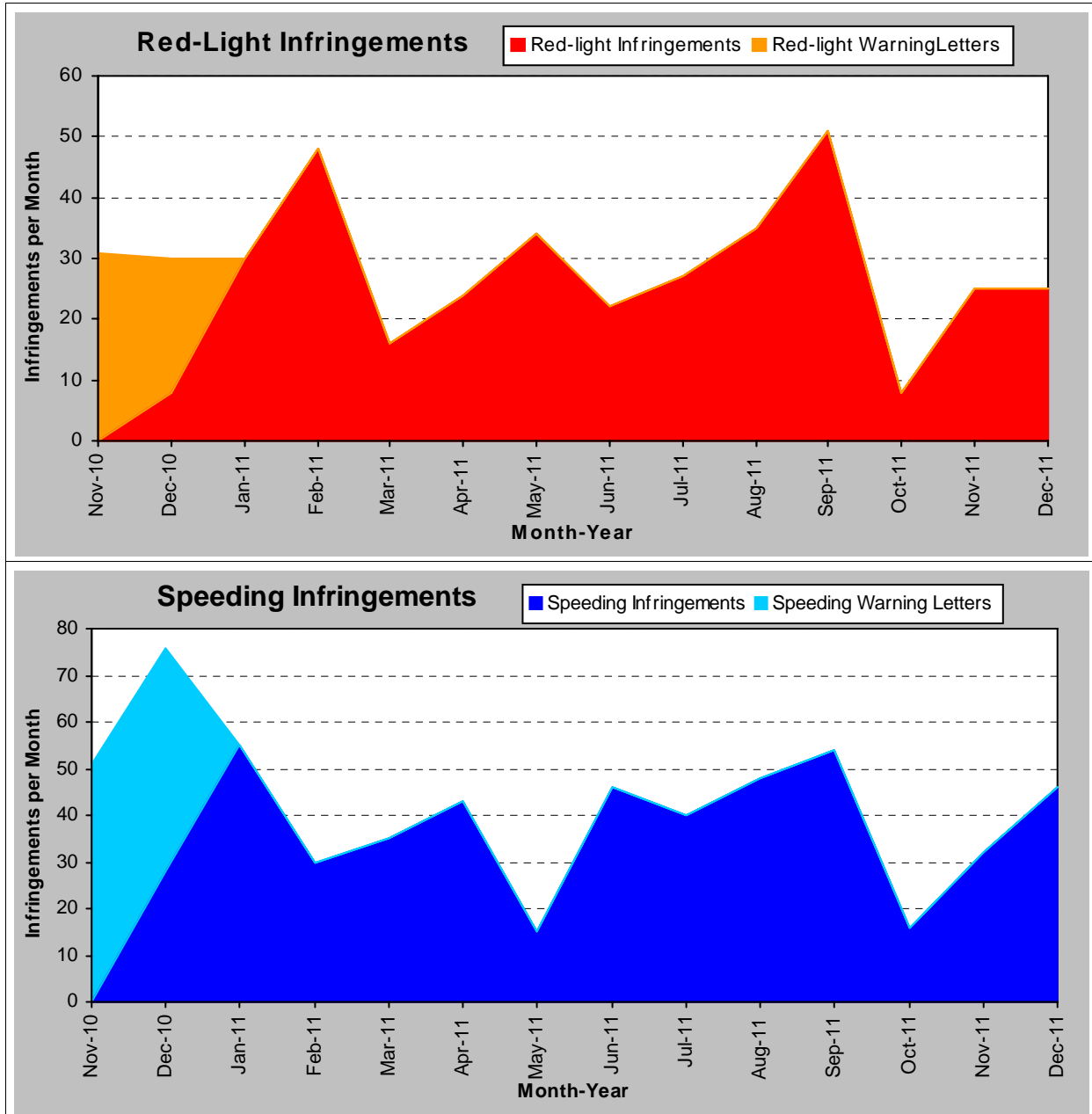




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Bourke St and Botany Rd, Waterloo

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Bourke St and Botany Rd, Waterloo commenced issuing warning letters in June 2010. The camera enforces red-light running and speeding offences.

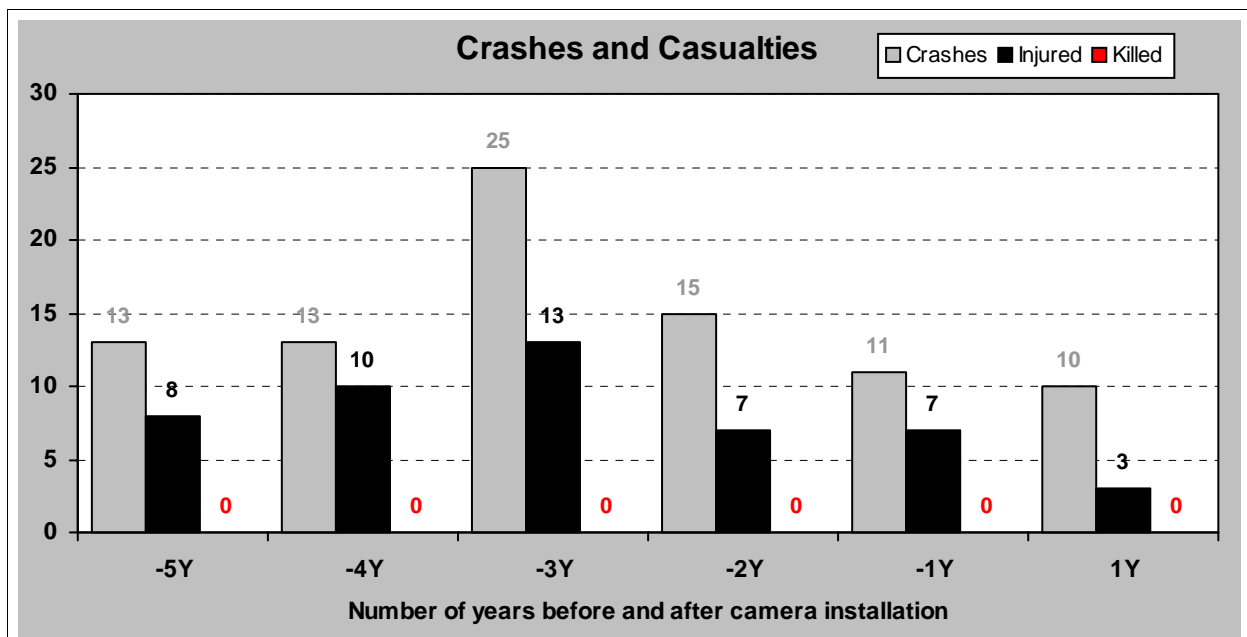
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 77 crashes resulting in 45 injuries and 0 fatalities.

In the 550 day period from installation to the end of 2011, there were 17 crashes resulting in 7 injuries and 0 fatalities.

This represents a 27 per cent reduction in the yearly average number of crashes and a 48 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

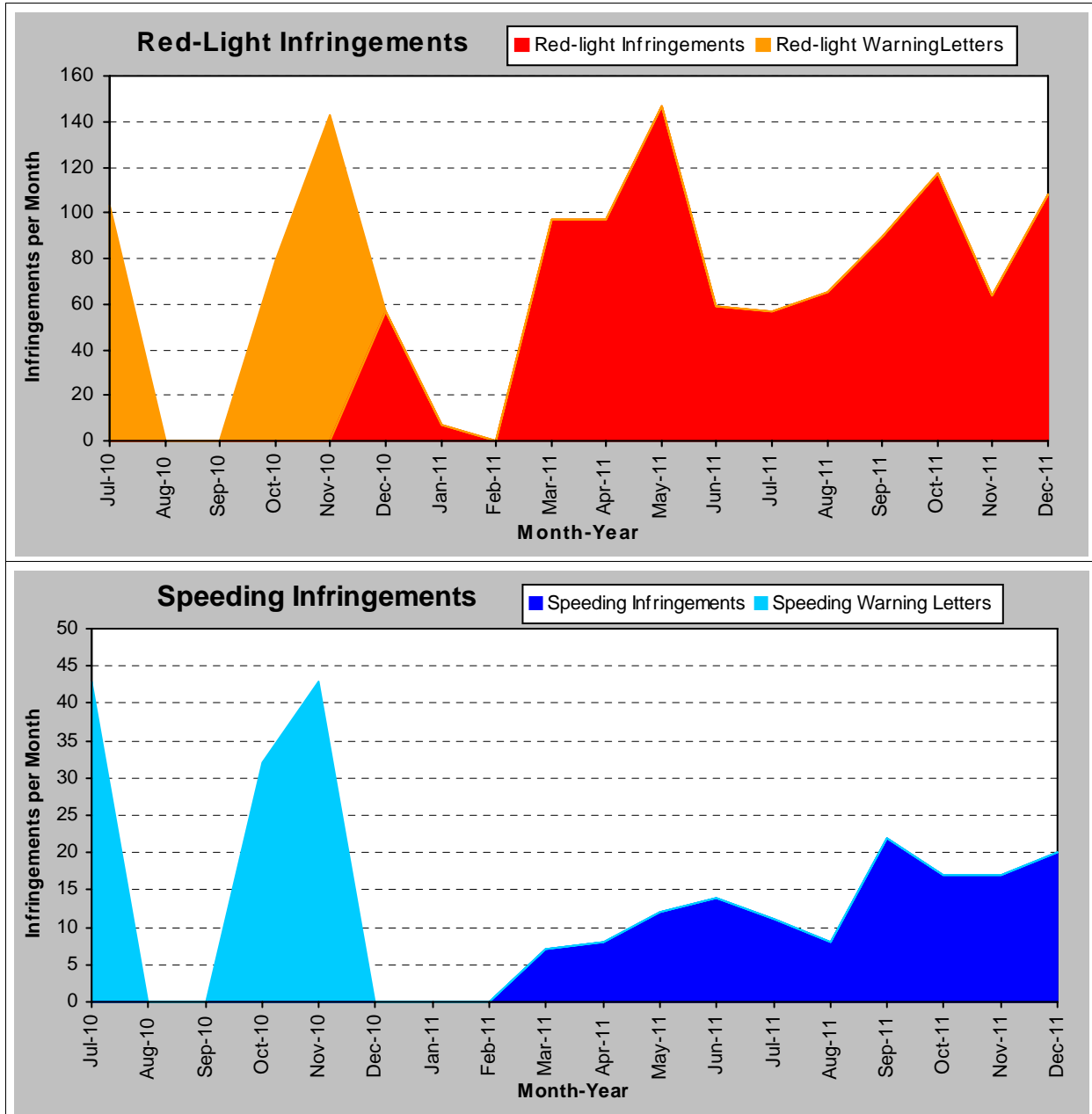
Provisional crash data shows there were 13 crashes resulting in 6 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Great Western Hwy and Station St, Wentworthville

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Great Western Hwy and Station St, Wentworthville commenced issuing warning letters in September 2010. The camera enforces red-light running and speeding offences.

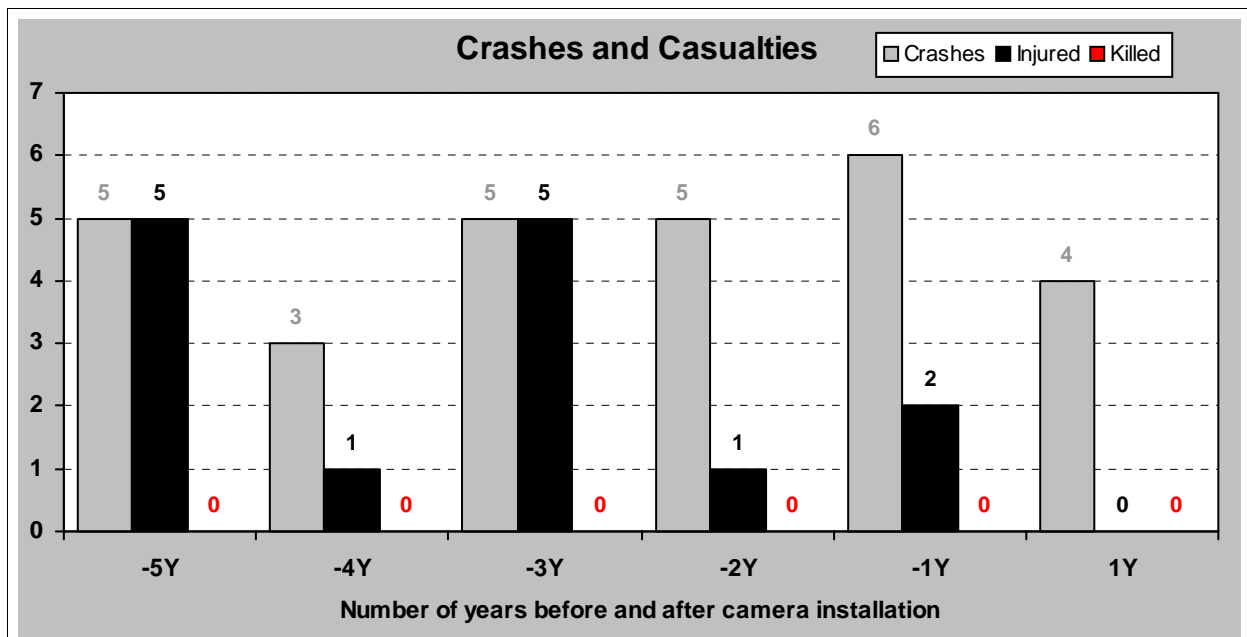
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 24 crashes resulting in 14 injuries and 0 fatalities.

In the 461 day period from installation to the end of 2011, there were 6 crashes resulting in 1 injury and 0 fatalities.

This represents a 1 per cent reduction in the yearly average number of crashes and a 72 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

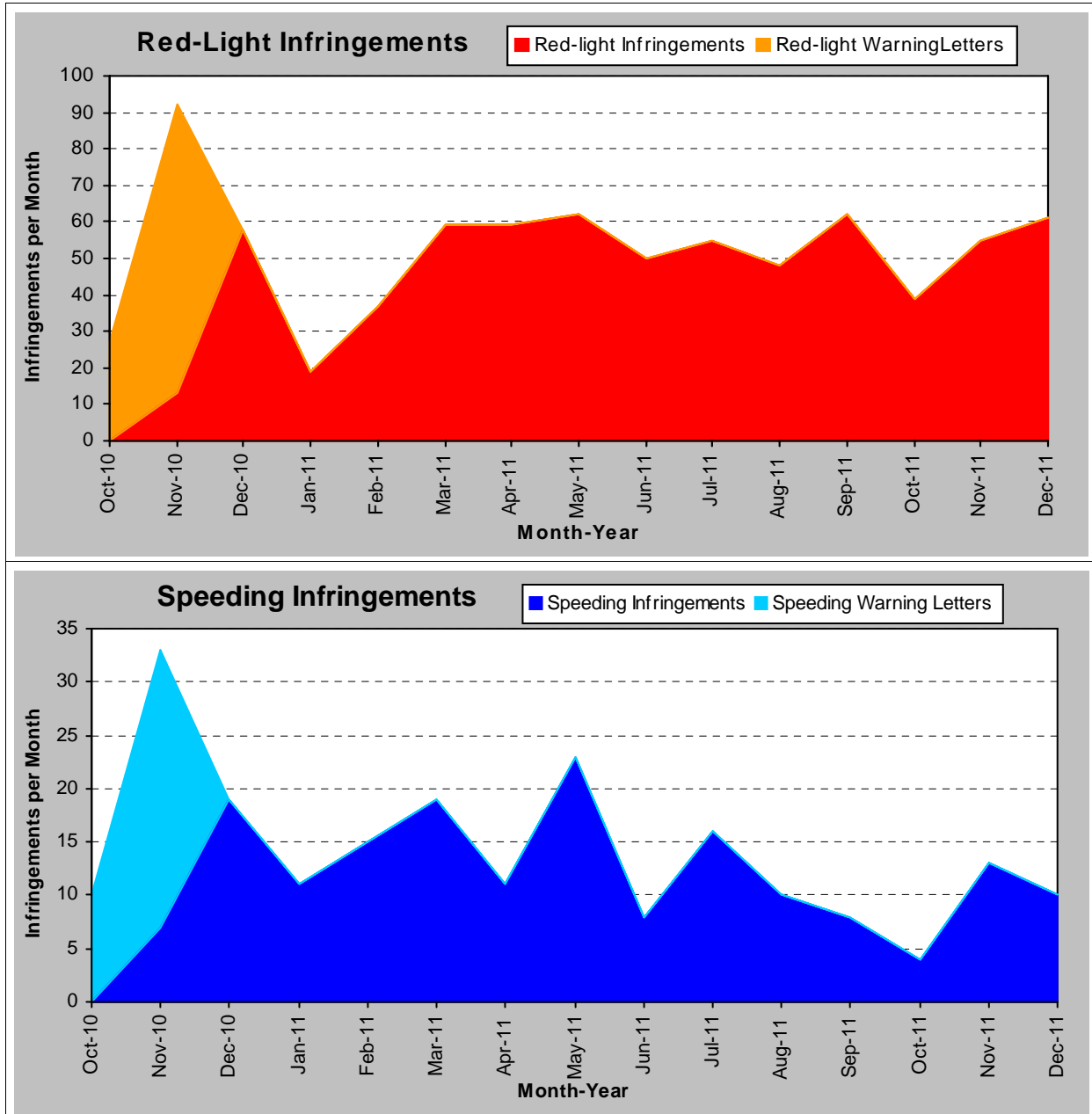
Provisional crash data shows there were 5 crashes resulting in one casualty at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Pennant Hills Rd and Eaton Rd, West Pennant Hills

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Pennant Hills Rd and Eaton Rd, West Pennant Hills commenced issuing warning letters in August 2010. The camera enforces red-light running and speeding offences.

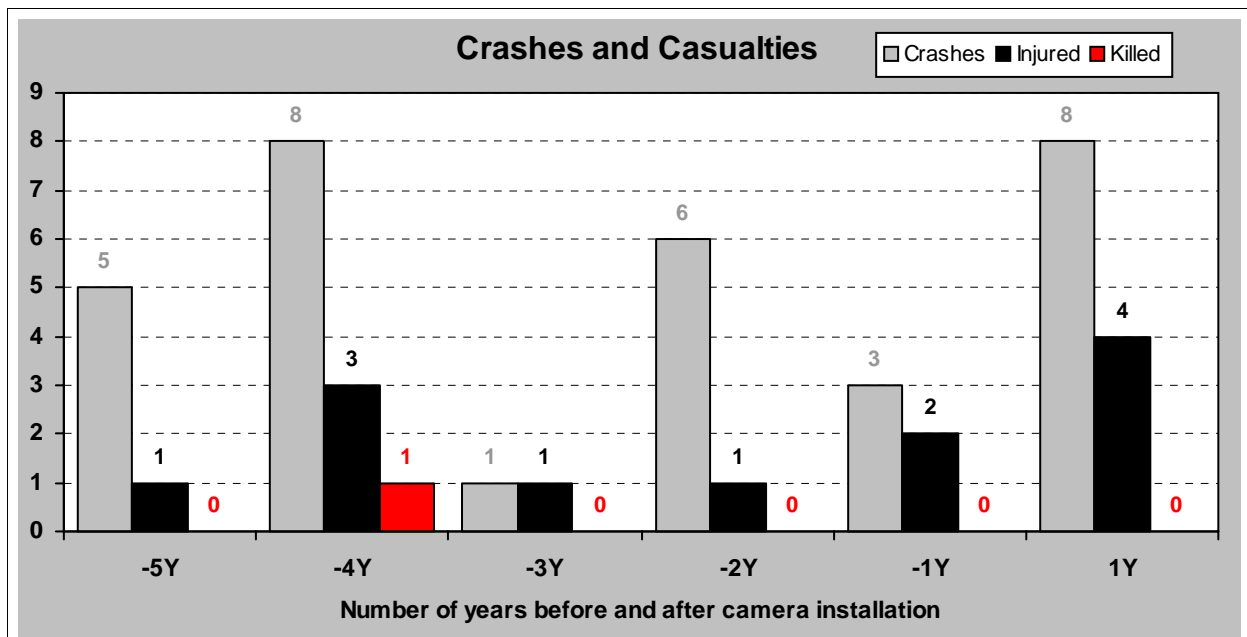
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 23 crashes resulting in 8 injuries and 1 fatality.

In the 493 day period from installation to the end of 2011, there were 8 crashes resulting in 4 injuries and 0 fatalities.

This represents a 29 per cent increase in the yearly average number of crashes and a 65 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

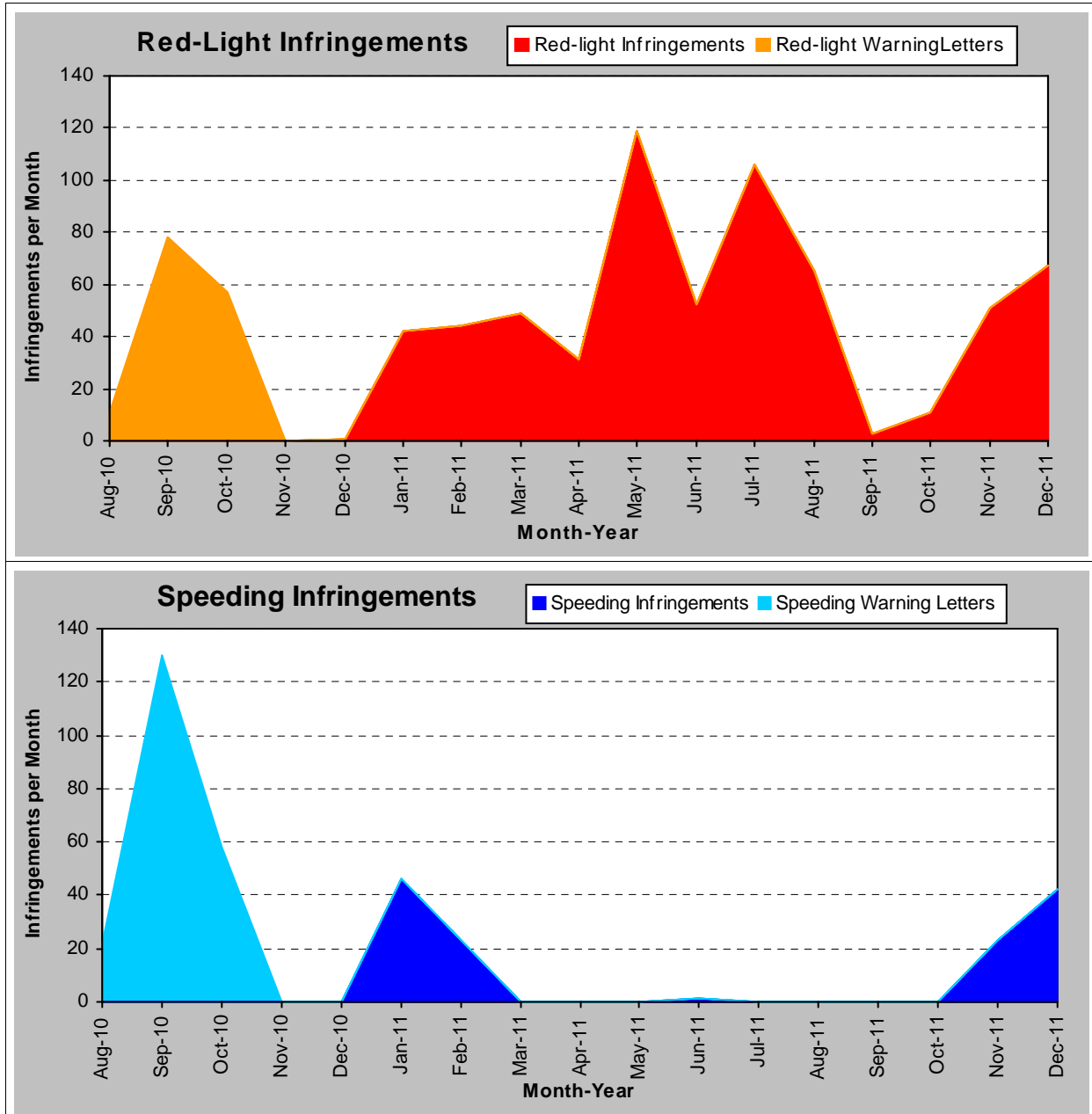
Provisional crash data shows there were 5 crashes resulting in 4 casualties at this intersection in 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating. The graph also shows the trend in infringements at this location.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Ryde Rd and Lady Game Dr, West Pymble

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

The red-light speed (safety) camera at the intersection of Ryde Rd and Lady Game Dr, West Pymble commenced issuing warning letters in December 2010. The camera enforces red-light running and speeding offences.

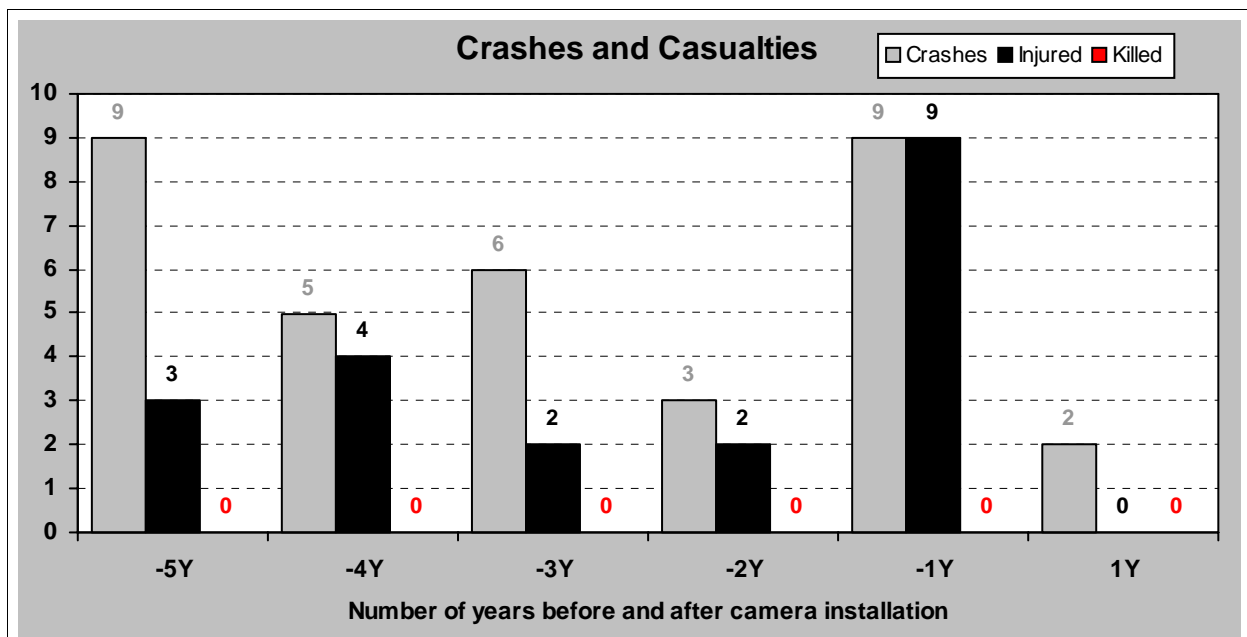
### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 32 crashes resulting in 20 injuries and 0 fatalities.

In the 382 day period from installation to the end of 2011, there were 2 crashes resulting in 0 injuries and 0 fatalities.

This represents a 70 per cent reduction in the yearly average number of crashes and a 100 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.

Provisional crash data shows there were 2 crashes resulting in 0 casualties at this intersection in 2011.

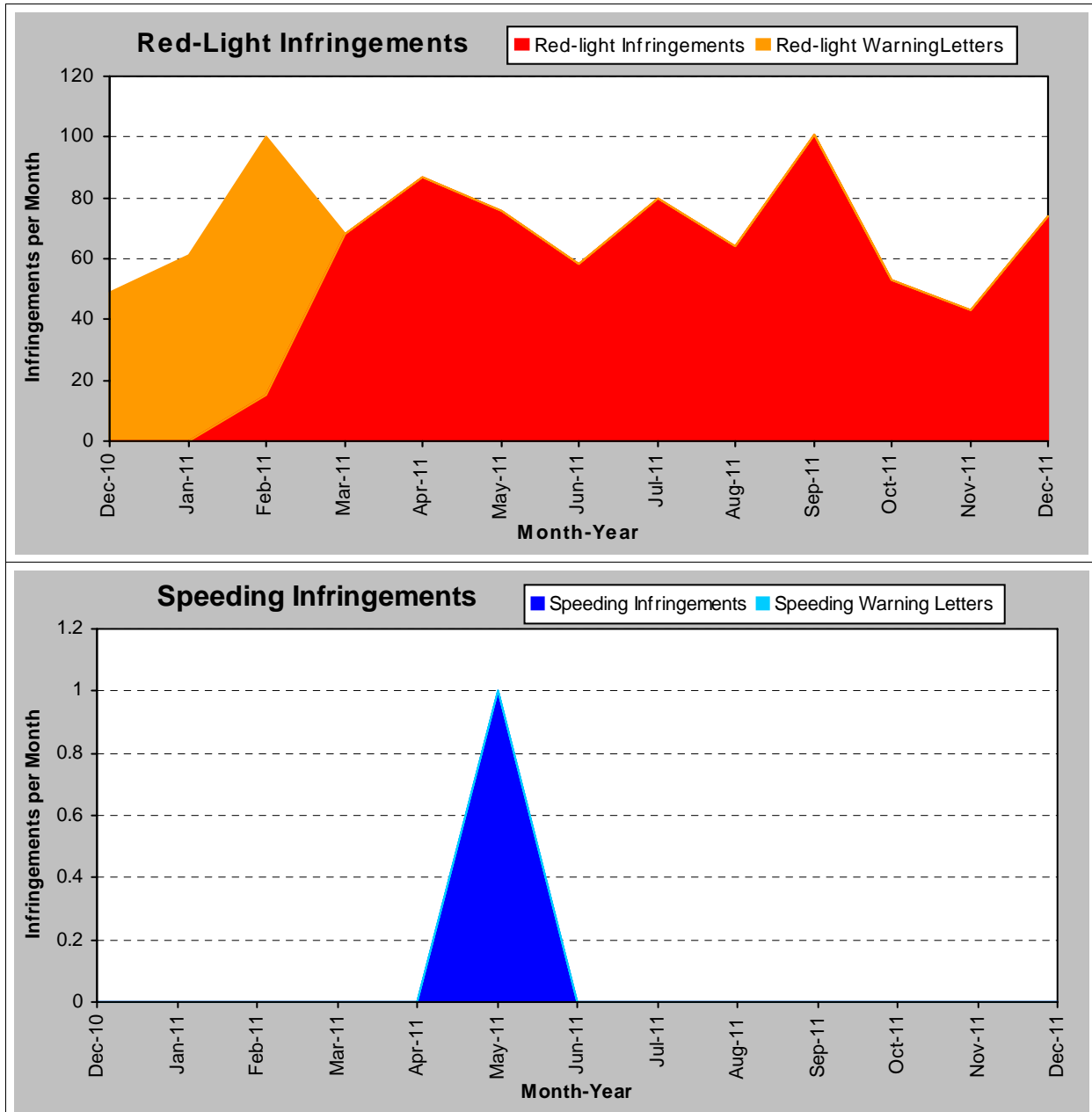




## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While the results available so far are encouraging, the analysis has only been conducted over a short time period and a more comprehensive analysis is required before making any conclusions about the effectiveness of the camera.

## Red-light speed (safety) camera location: Windang Road and Boronia Avenue, Windang

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

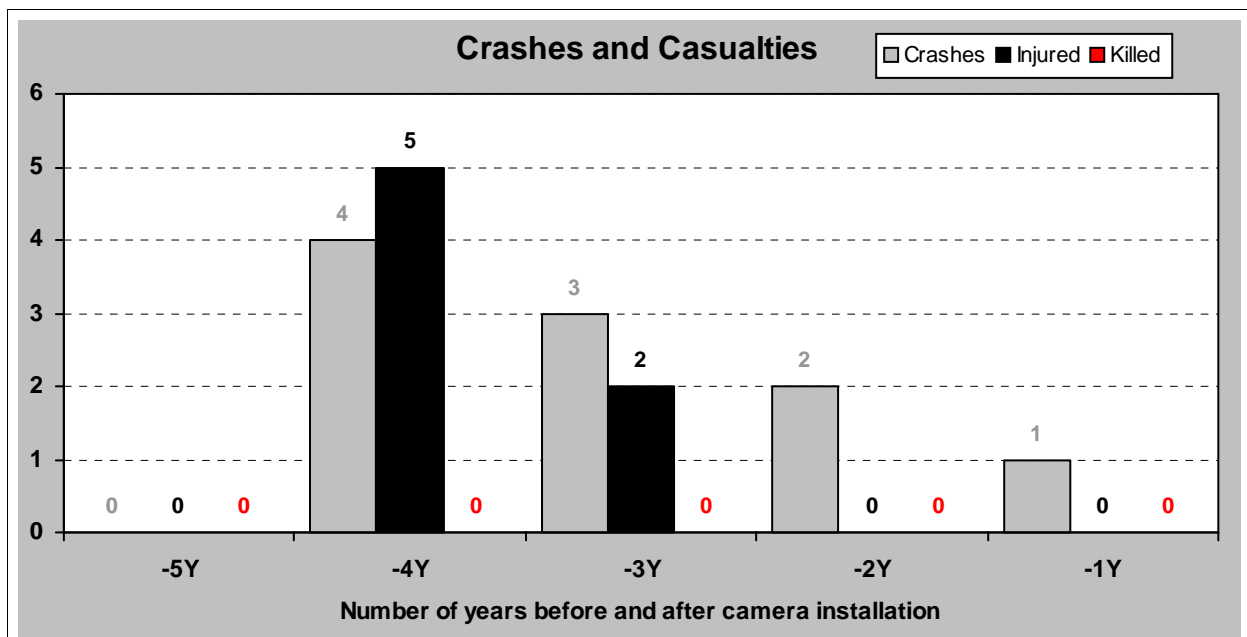
The red-light speed (safety) camera at the intersection of Windang Road and Boronia Avenue, Windang commenced issuing warning letters in May 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 10 crashes resulting in 7 injuries and 0 fatalities.

In the 228 day period from installation to the end of 2011, there were 4 crashes resulting in 1 injury and 0 fatalities.

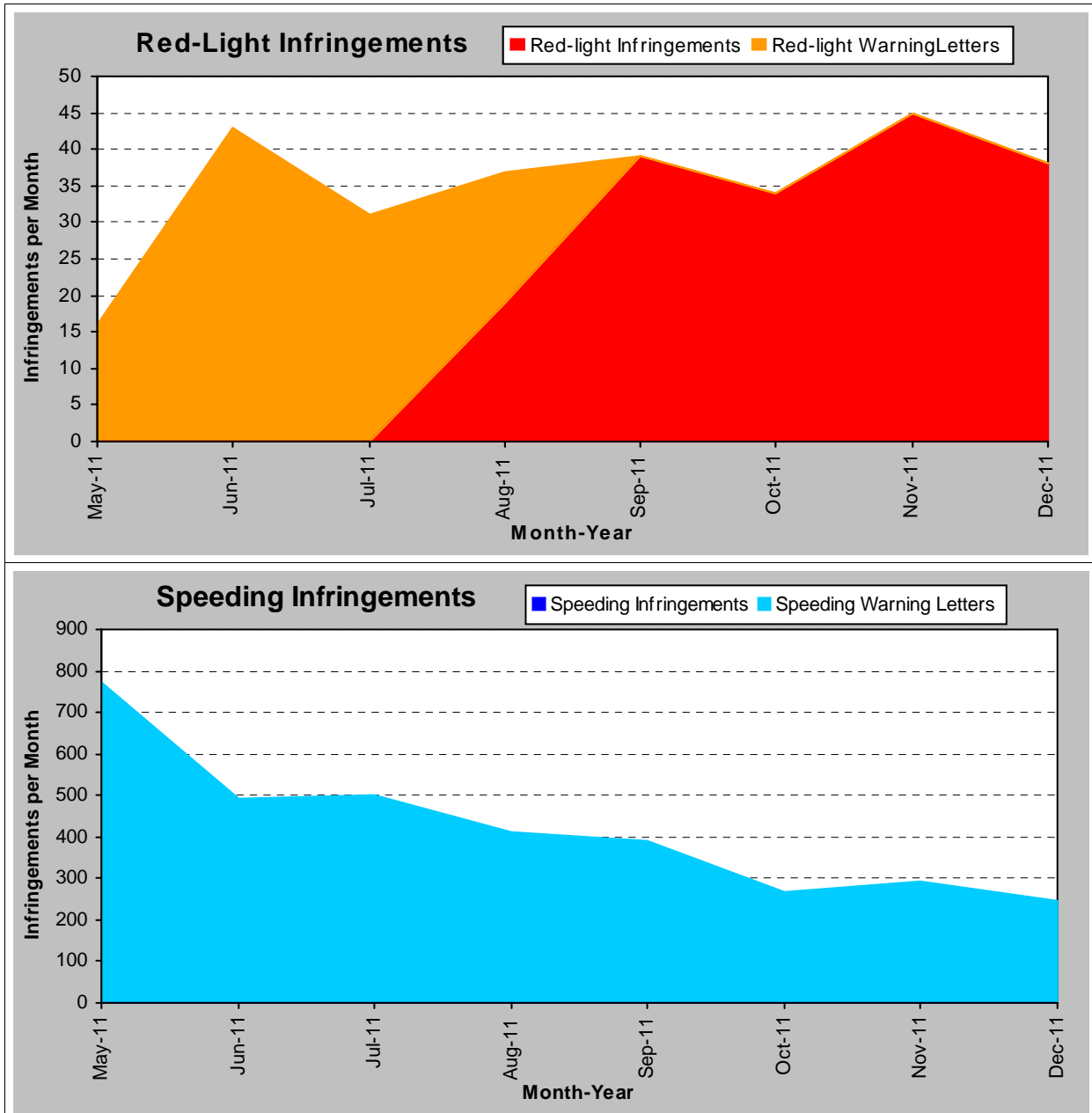
This represents a 220 per cent increase in the yearly average number of crashes and a 14 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Corrimal Street and Burelli Street, Wollongong

The intersection was an existing wet-film red-light camera location. There is one camera at the intersection.

### Camera 1

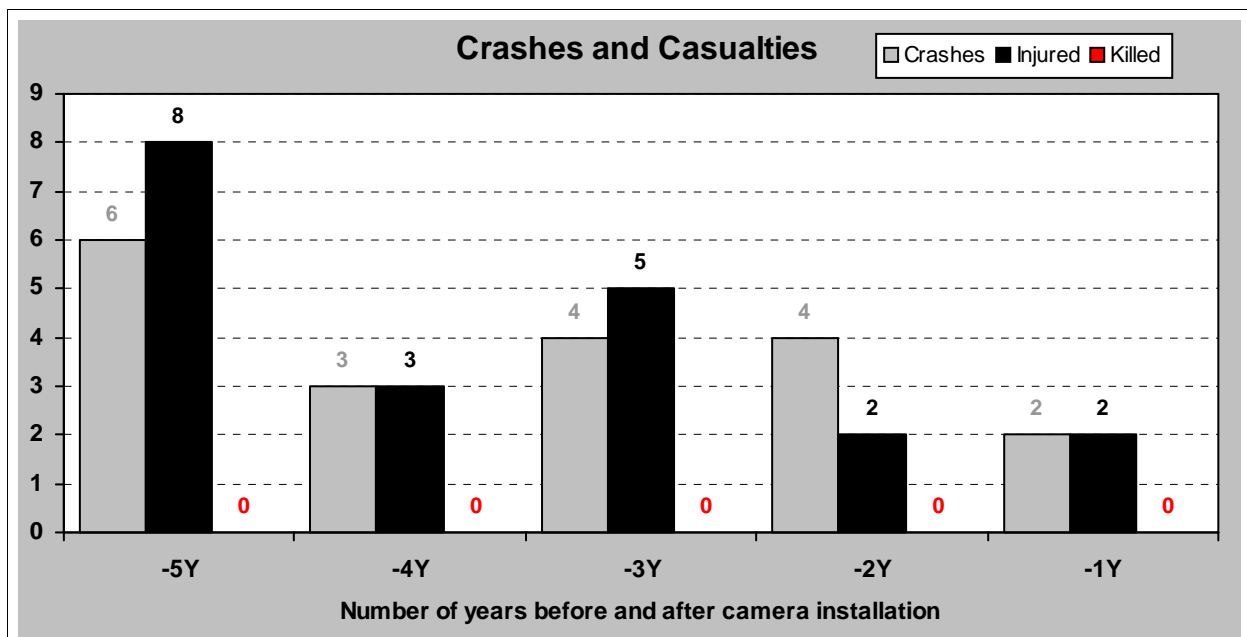
The red-light speed (safety) camera at the intersection of Corrimal Street and Burelli Street, Wollongong commenced issuing warning letters in April 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 19 crashes resulting in 20 injuries and 0 fatalities.

In the 257 day period from installation to the end of 2011, there were 4 crashes resulting in 0 injuries and 1 fatality.

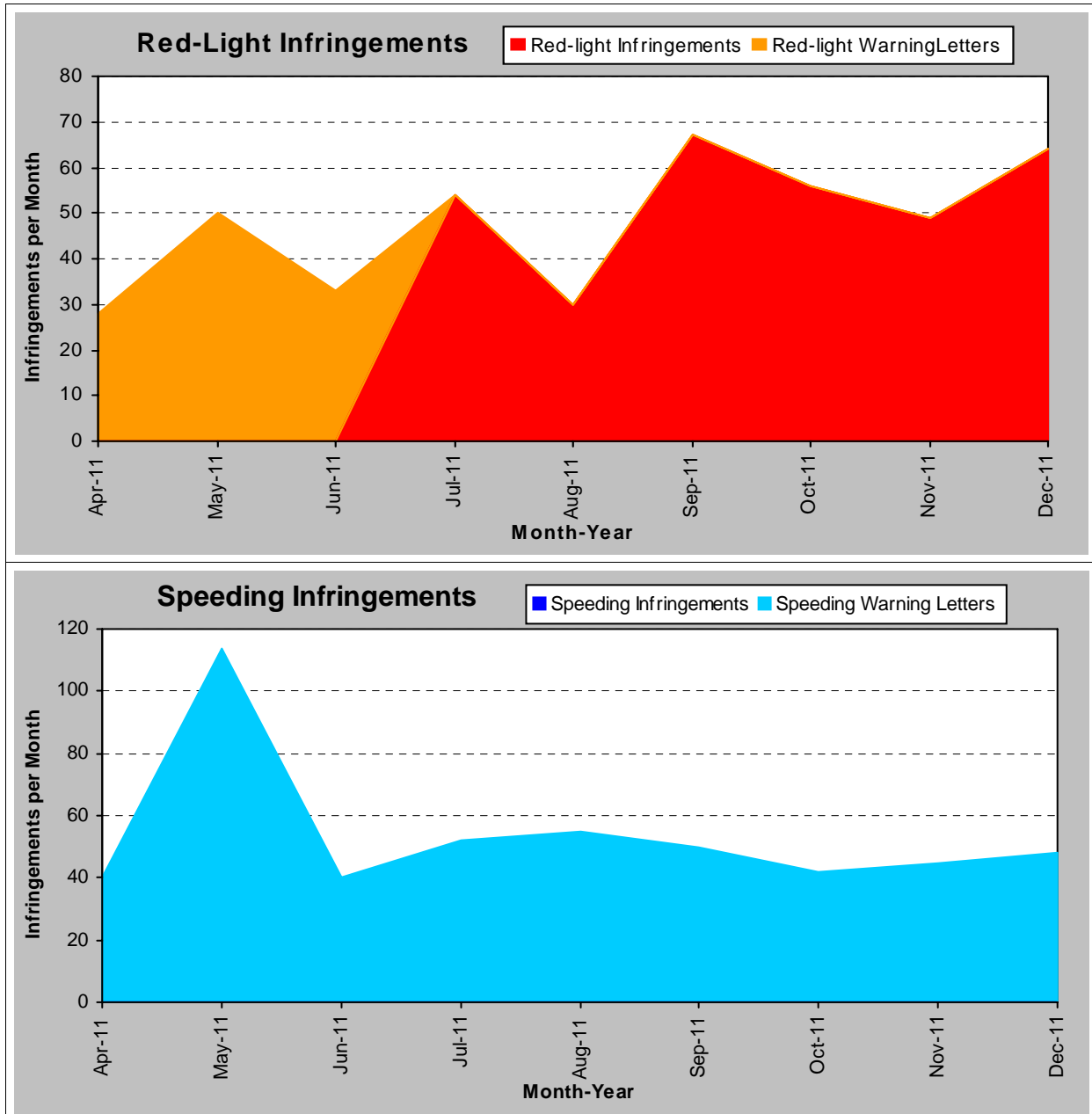
This represents a 50 per cent increase in the yearly average number of crashes and a 64 per cent reduction in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



## Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



## Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Red-light speed (safety) camera location: Gladstone Avenue and Princes Highway, Wollongong

There is one camera at the intersection.

### Camera 1

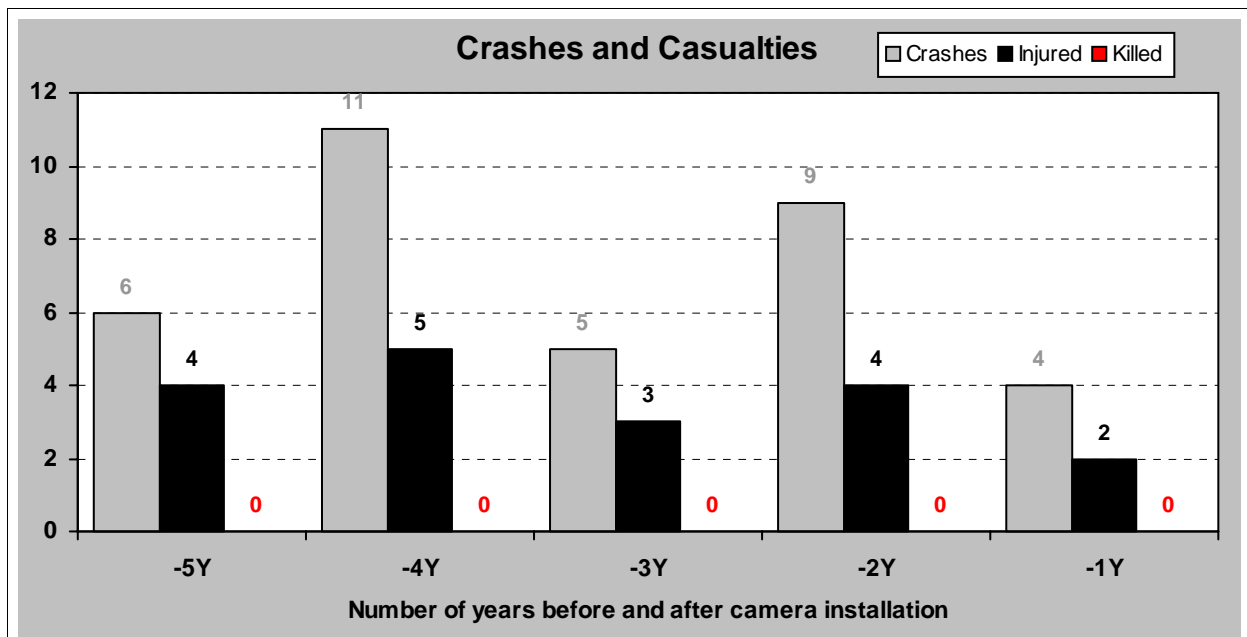
The red-light speed (safety) camera at the intersection of Gladstone Avenue and Princes Highway, Wollongong commenced issuing warning letters in June 2011. The camera enforces red-light running, and is operating in warning mode for speeding offences.

### Crashes at safety camera location

In the five years prior to the installation of the red-light speed (safety) camera there were 35 crashes resulting in 18 injuries and 0 fatalities.

In the 201 day period from installation to the end of 2011, there were 5 crashes resulting in 2 injuries and 0 fatalities.

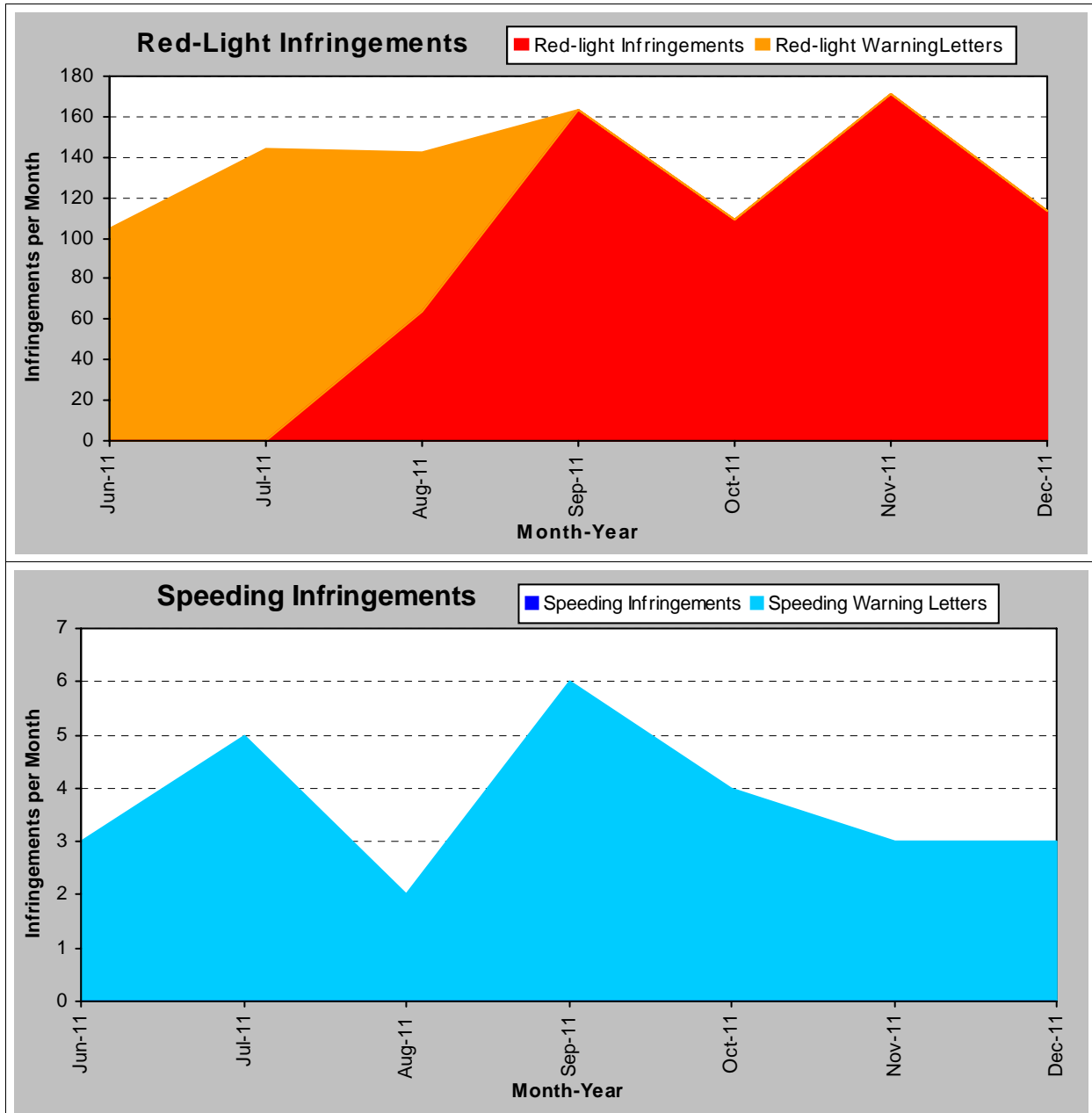
This represents a 30 per cent increase in the yearly average number of crashes and a 1 per cent increase in the yearly average number of casualties at this intersection in the period after installation until the end of 2011.



### Infringements at safety camera location

The graph below details the number of warning letters and infringements issued at this intersection since the camera began operating.

Roadworks and camera maintenance may influence the number of infringements issued.



### Summary

While early results indicate a slight increase in crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera. The location will continue to be monitored during 2012.

## Appendix C: Analysis of the NSW fixed speed camera program

### Overview of fixed speed camera locations

	Location	Road
1	Ashfield	Hume Highway, between Murrell Street and Queen Street
2	Auburn	Parramatta Road, between Harbord Street and Duck Street
3	Bankstown	Hume Highway, between Rookwood Road and Stacey Street
4	Bar Point	F3 Freeway, between Jolls Bridge and Mt White Exit Ramp
5	Bardwell Park / Arncliffe	M5 Tunnel, between Bexley Road and Marsh Street
6	Ben Lomond	New England Highway, between Ross Road and Ben Lomond Road
7	Berkshire Park	Richmond Road, between Llandilo Road and Sanctuary Drive
8	Berry	Princes Highway, between Kangaroo Valley Road and Victoria Street
9	Bexley North	Bexley Road, between Kingsland Road North and Miller Avenue
10	Beverly Hills	King Georges Road, between Stoney Creek Road and Edgbaston Road
11	Blandford	New England Highway, between Hayles Street and Mills Street
12	Bomaderry	Bolong Road, between Beinda Street and Coomea Street
13	Bonnyrigg	Elizabeth Drive, between Brown Road and Humphries Road
14	Bonnyrigg	Cabramatta Road, between Katinka Street and Tarlington Parade
15	Bonville	Pine Creek Way, between Bonville Creek and Bonville Station Road
16	Brogo	Princes Highway, between Pioneer Close and Brogo River
17	Bulli	Princes Highway, between Grevillea Park Road and Black Diamond Place
18	Burringbar	Tweed Valley Way, between Blakeney's Road and Cooradilla Road
19	Burwood Heights	Hume Highway, between Kelso Street and Appian Way
20	Camellia	James Ruse Drive, between Victoria Road and Grand Avenue North
21	Canterbury	Canterbury Road, between Gould Street and Jeffrey Street
22	Caringbah	Captain Cook Drive, between Cawarra Road and Gannons Road
23	Carlingford	Pennant Hills Road, between Evans Road and Coleman Avenue
24	Castle Hill	Old Northern Road, between Telfer Road and Brisbane Road
25	Charmhaven	Pacific Highway, between Wallarah Creek and Lowana Avenue
26	Concord West	Concord Road, between Nirranda Street and Mepunga Street
27	Condell Park	Edgar Street, between Augusta Street and Upper Railway Parade
28	Corrimal	Northern Distributor, between Towradgi Road and Railway Street
29	Darlinghurst	Eastern Distributor, between Oxford Street and William Street
30	Eastgardens/Maroubra	Bunnerong Road, between Fitzgerald Avenue and Smith Street
31	Edgecliff	New South Head Road, between Waratah Street and New Beach Road
32	Ewingsdale	Pacific Highway, between St Helena Road and Ewingsdale Road.
33	Fairfield East	Fairfield Street, between Scott Street and Mandarin Street
34	Foxground	Princes Highway, between Foxground Road and Broughton Creek
35	Gateshead	Pacific Highway, between Sydney Street and Macquarie Avenue
36	Green Valley	Cowpasture Road, between Seventeenth Avenue and Green Valley Road
37	Greystanes	Greystanes Road, between Merrylands Road and Old Prospect Road
38	Guildford	Woodville Road, between Kenelda Avenue and Osgood Street
39	Gwynneville	Southern Freeway, between Northern Distributor Overpass and Gipps Road Overpass
40	Gwynneville	Southern Freeway, between University Avenue Overpass and Mount Ousley Road (SB)
41	Hartley	Great Western Highway, between Mid Hartley Road and Blackmans Creek Road
42	Hungry Head	Pacific Highway, between Boundary Road and Ballards Road
43	Hurstville	Forest Road, between Lily Street and Cronulla Street
44	Kingswood	Parker Street, between Copeland Street and Gascoigne Street
45	Kogarah	Princes Highway, between Gray Street and President Avenue
46	Kootingal	New England Highway, between Gill Street and Yarrol Road
47	Korora	Pacific Highway, between Bruxner Park Road and Korora Basin Road
48	Kurrajong	Bells Line of Road, between Queen Street and Bellbird Avenue
49	Lane Cove	Centennial Avenue, between Gentle Street and Figtree Street
50	Lane Cove Tunnel	Lane Cove Tunnel, between the Mowbray Road and the Pacific Highway
51	Lansvale	Hume Highway, between Henry Lawson Drive and Knight Street
52	Lindfield	Pacific Highway, between Eton Road and Gladstone Parade
53	Liverpool	Bigge Street, between Elizabeth Drive and Campbell Street
54	Lochinvar	New England Highway, between Robert Road and Station Lane
55	M2 Tunnel	M2 Motorway, between Terry Creek and Norfolk Road
56	Macksville	Pacific Highway, between Florence Wilmont Drive and Watt Creek
57	Maroubra	Malabar Road, between Mons Avenue and Duncan Street
58	Mayfield West	Pacific Highway, between Werribie Street and Tourle Street
59	Merrylands	Merrylands Road, between Chetwynd Road and Davies Street
60	Miranda	Kingsway, between Sylva Avenue and University Road
61	Moore Park	Cleveland Street, between Anzac Parade and South Dowling Street
62	Mosman	Macpherson Street, between Ourimbah Road and Montague Road
63	Narrabeen	Pittwater Road, between Ocean Street and Devitt Street
64	New Italy	Pacific Highway, between New Italy Road and Turners Road



65	Nords Wharf	Pacific Highway, between Nords Wharf Road and Flowers Drive
66	North Curl Curl	Harbord Road, between Abbott Road and Brighton Street
67	North Narrabeen	Pittwater Road, between Garden Street and Namona Street
68	North Parramatta	Pennant Hills Road, between Castle Street and Bellevue Street
69	North Parramatta / Oatlands	Pennant Hills Road, between Masons Drive and Suttor Avenue
70	North Wollongong	Princes Highway, between Ajax Avenue and Exeter Avenue
71	Old Guilford	Woodville Road, between Orchardleigh Street and Middleton Road
72	Ourimbah	F3 Freeway, between Dogtrap Road Overpass and Ourimbah Creek Road
73	Ourimbah	Pacific Highway, between Yates Road and Dog Trap Road
74	Padstow	Gibson Avenue, between Turvey Street and Bryant Street
75	Peakhurst	Henry Lawson Drive, between Belmore Road and Ogilvy Street
76	Penshurst	Forest Road, between Penshurst Street and St Georges Street
77	Picnic Point	Henry Lawson Drive, between Carinya Road and The River Road
78	Queanbeyan	Lanyon Drive, between Tompsitt Drive and Hoover Road
79	Randwick	Avoca Street, between Howard Street and Barker Road
80	Rankin Park	McCaffrey Drive, between Duval Street and Orara Street
81	Rosebery/Alexandria	Botany Road, between Gardeners Road and Gillespie Street
82	Rydalmere	Victoria Road, between Park Road and John Street
83	Ryde	Blaxland Road, between Reservoir Lane and North Road
84	Ryde	Victoria Road, between Margaret Street and Cressy Road
85	Sandgate	Pacific Highway, between Wallsend Road and Ironbark Creek
86	South Windsor	George Street, between Rickaby Street and Yarrowonga Street
87	Strathfield	The Boulevarde, between Torrington Parade and Russell Street
88	Sydney	Sydney Harbour Tunnel, between Cahill Expressway and Warringah Freeway
89	Tenterfield	New England Highway, between Duncan Street and George Street
90	Terrigal	Terrigal Drive, between Brunswick Road and Bellbird Avenue
91	Toongabbie	Fitzwilliam Road, between Reynolds Street and Binalong Road
92	Valla Beach	Pacific Highway, between Valla Beach Road and Oyster Creek
93	Valley Heights	Great Western Highway, between The Valley Road and Sun Valley Road
94	Wahroonga	Pacific Highway, between Gilda Avenue and Woodville Avenue
95	Wardell	Pacific Highway, between Riverside Drive and Carlisle Street
96	Warrawong	Northcliffe Drive, between Griffin Street and Kully Street
97	West Pennant Hills	Castle Hill Road, between Pennant Hills Road and Coonara Avenue
98	Wollongbar	Bruxner Highway, between Convernys Lane and McLeans Ridges Road
99	Wollongong	Princes Highway, between Mount Keira Road and Highway Avenue
100	Woodburn	Pacific Highway, between Wagner Street and Norman Street
101	Woolloomooloo / East Sydney	Cross City Tunnel, between McLachlan Avenue and Harbour Street
102	Wyoming	Henry Parry Drive, between Glennie Street and Dwyer Street
103	Yagoona	Hume Highway, between Smith Street and Brennan Avenue

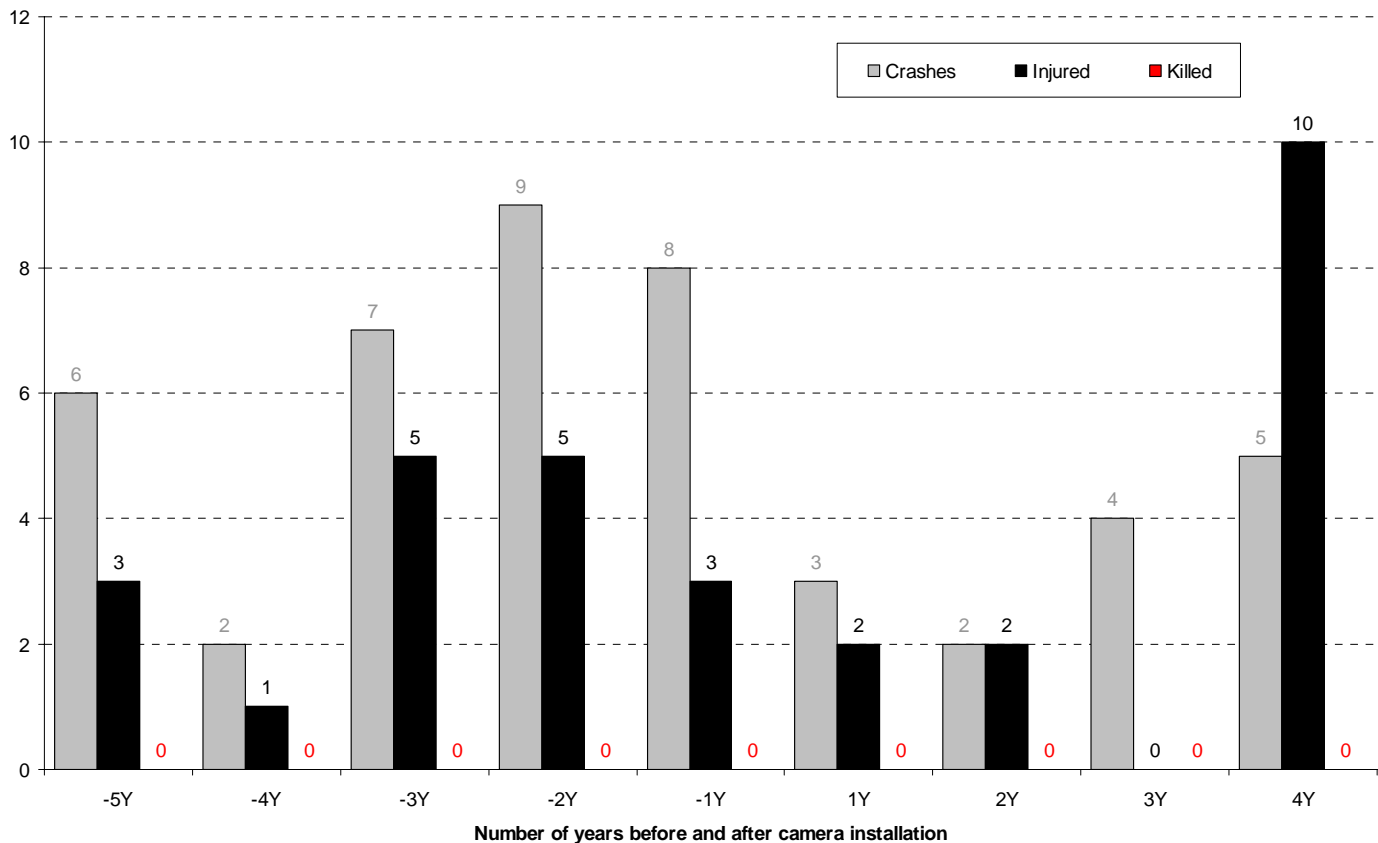
### Fixed digital speed camera - Hume Highway, Ashfield (school zone)

Location: Hume Highway, between Murrell Street and Queen Street, Ashfield.  
 School zone: Ashfield Public School.

<b>Length description</b>	260m east of camera to 150m west of camera
<b>Total length (m)</b>	410 (Patch to Patch)
<b>Started Infringing</b>	07/08/2007

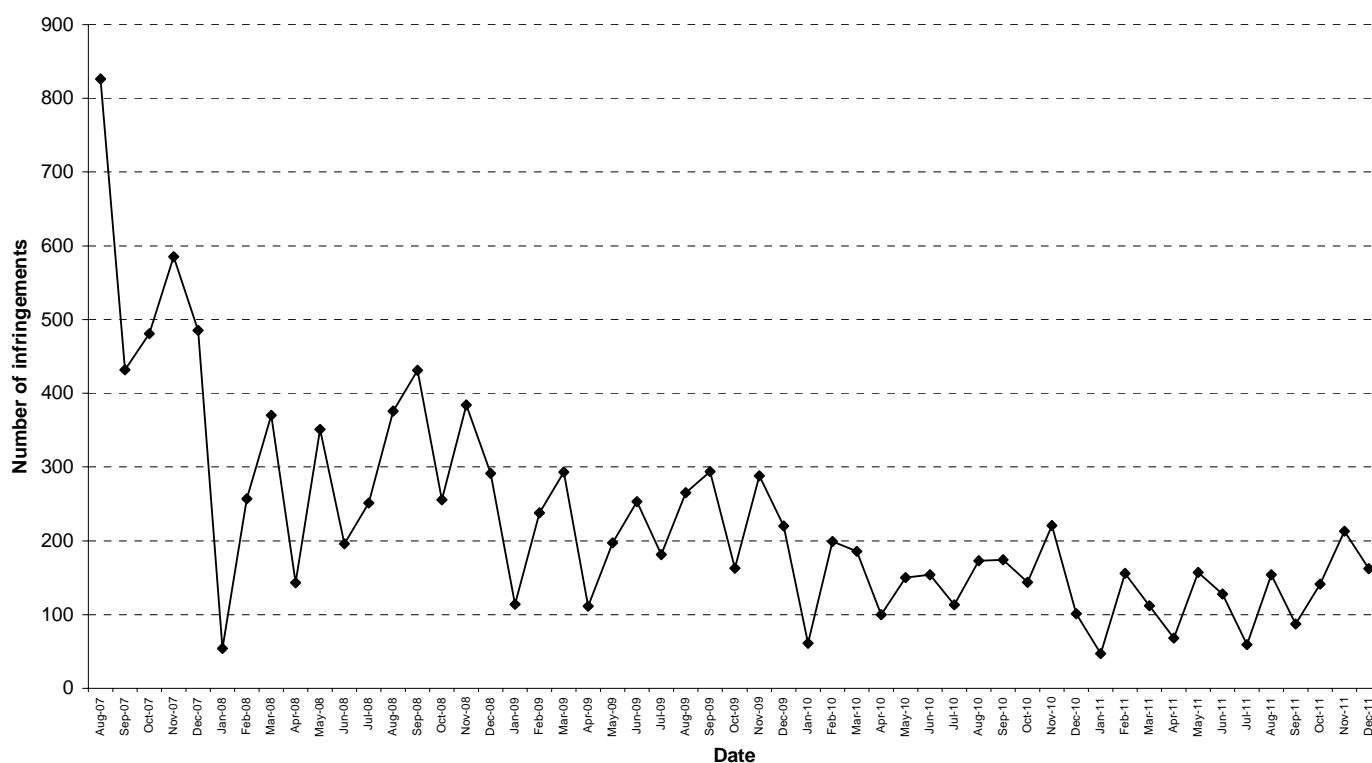
### Crashes at fixed speed camera location

Five years before – May 2002 to May 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	17	17	32	1.938
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	14	14	14	1.596



## Infringements at fixed speed camera location

HUME HIGHWAY ASHFIELD



### Summary

The school zone fixed speed camera on the Hume Highway, Ashfield was installed in August 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have reduced at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 32 crashes resulting in zero fatalities and 17 injuries. In the four year period 2007 – 2011 there were 14 crashes resulting in zero fatalities and 14 injuries. Since the camera was installed, this is a reduction of 45 per cent in the annual average number of crashes and a three per cent increase in the annual average number of casualties. However a more detailed analysis of the crashes at this location indicates there has been a 30 per cent reduction in the annual average number of casualty crashes when compared to the pre installation period.

Provisional crash data show there were 3 crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

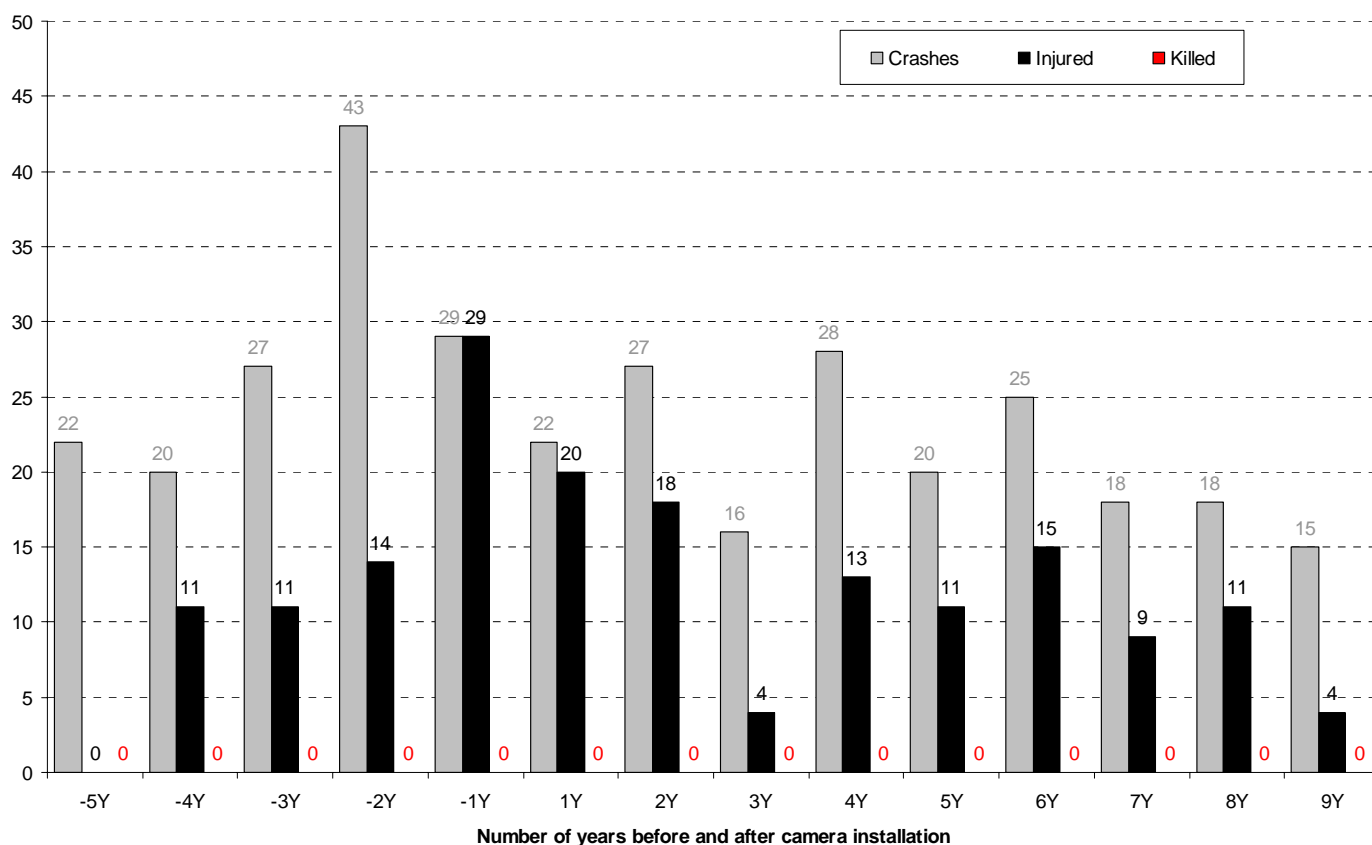
## Fixed digital speed camera - Parramatta Road, Auburn

Location: Parramatta Road, between Harbord Street and Duck Street, Auburn.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	15/05/2002

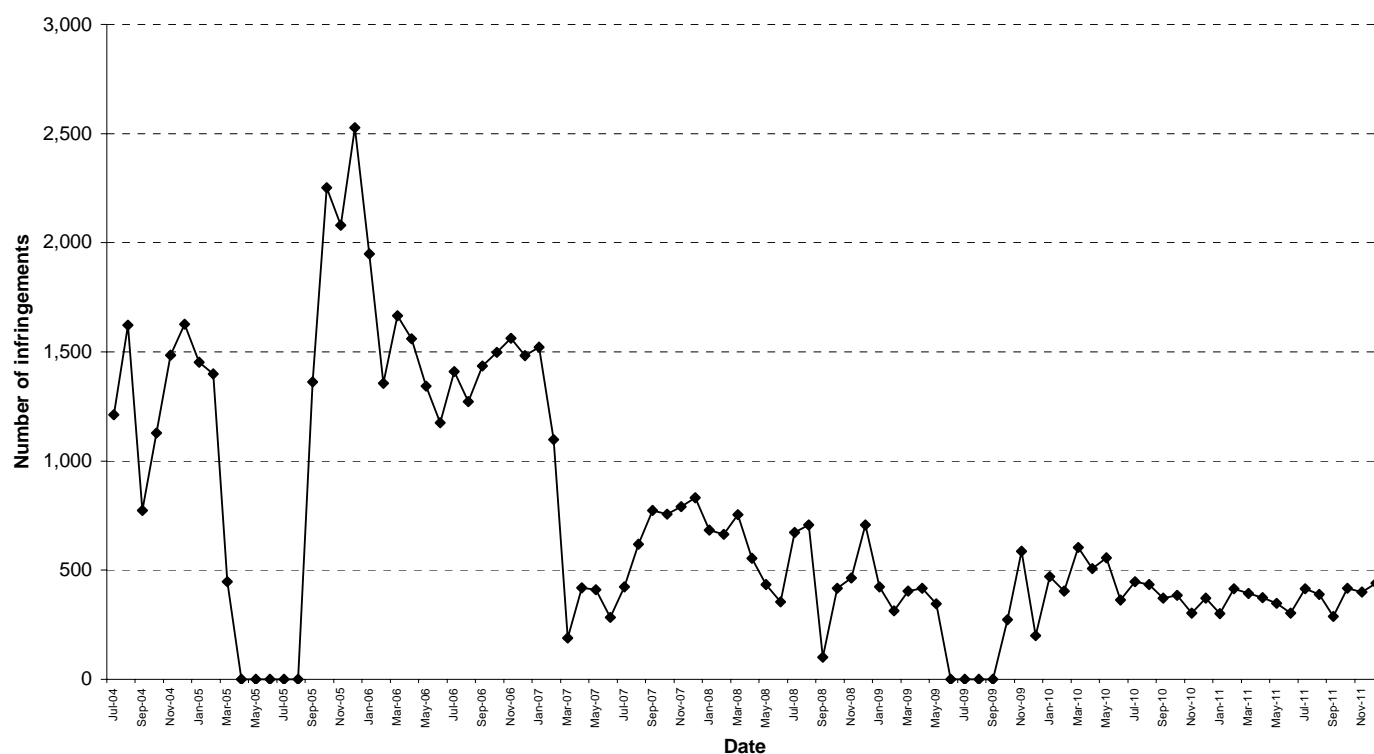
### Crashes at fixed speed camera location

Five years before – Feb 1997 to Feb 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	79	79	141	9.006
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	50	50	96	5.7



## Infringements at fixed speed camera location

### PARRAMATTA RD AUBURN



## Summary

The fixed speed camera on Parramatta Rd, Auburn was installed in May 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have reduced at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 141 crashes resulting in zero fatalities and 79 injuries. In the five year period 2006 – 2011 there were 96 crashes resulting in zero fatalities and 50 injuries. When compared to the pre installation period, this is a 32 per cent reduction in the annual average number of crashes and a 37 per cent reduction in the annual average number of casualties. This has been a saving of \$3.3 million in costs to the community.

Provisional crash data show there were 13 crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera - Hume Highway, Bankstown (school zone)

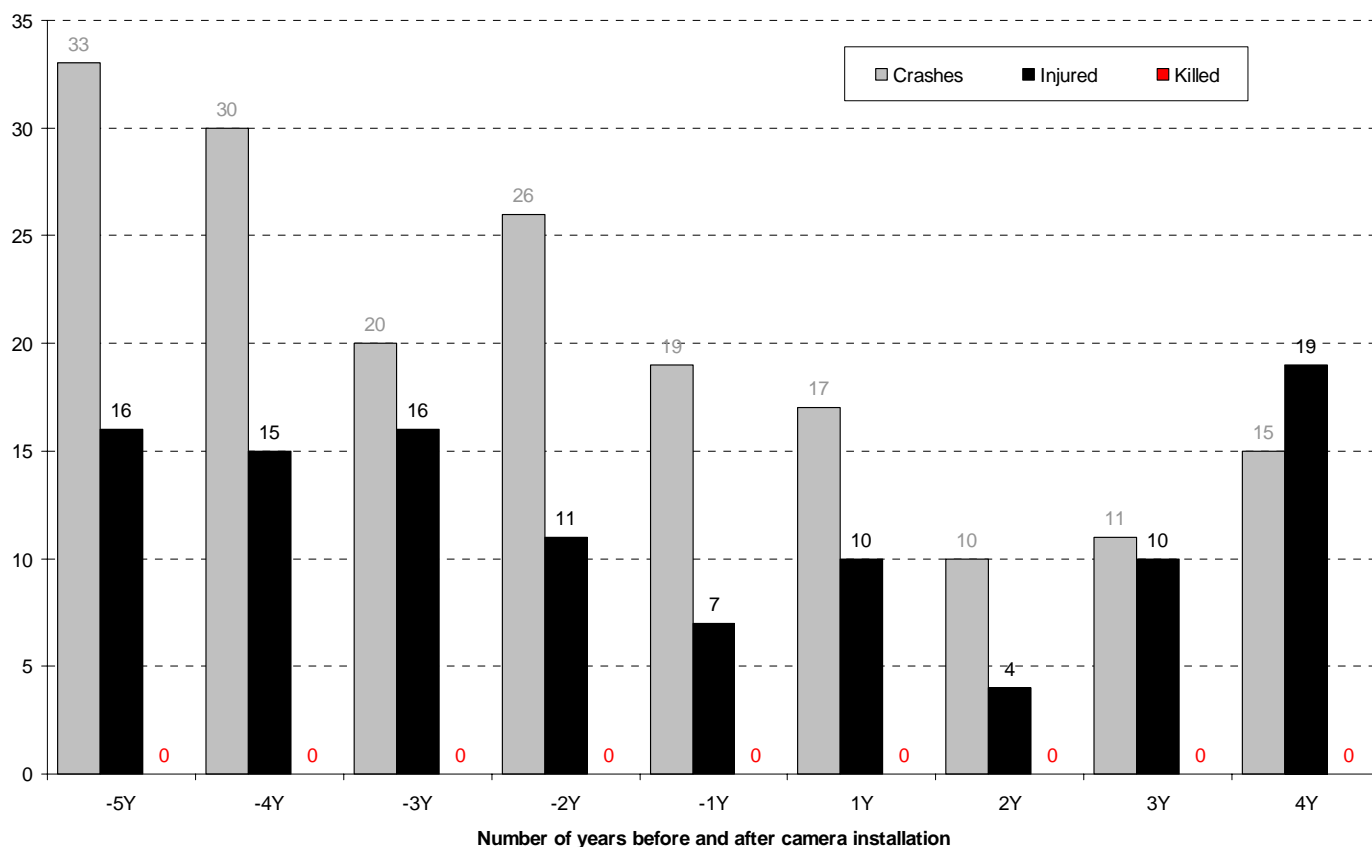
Location: Hume Highway, between Rookwood Road and Stacey Street, Bankstown.

School zone: Bankstown North Public School, La Salle Catholic School.

<b>Length description</b>	120m east of camera to 550m west of cameras
<b>Total length (m)</b>	670
<b>Started Infringing</b>	4/07/2007

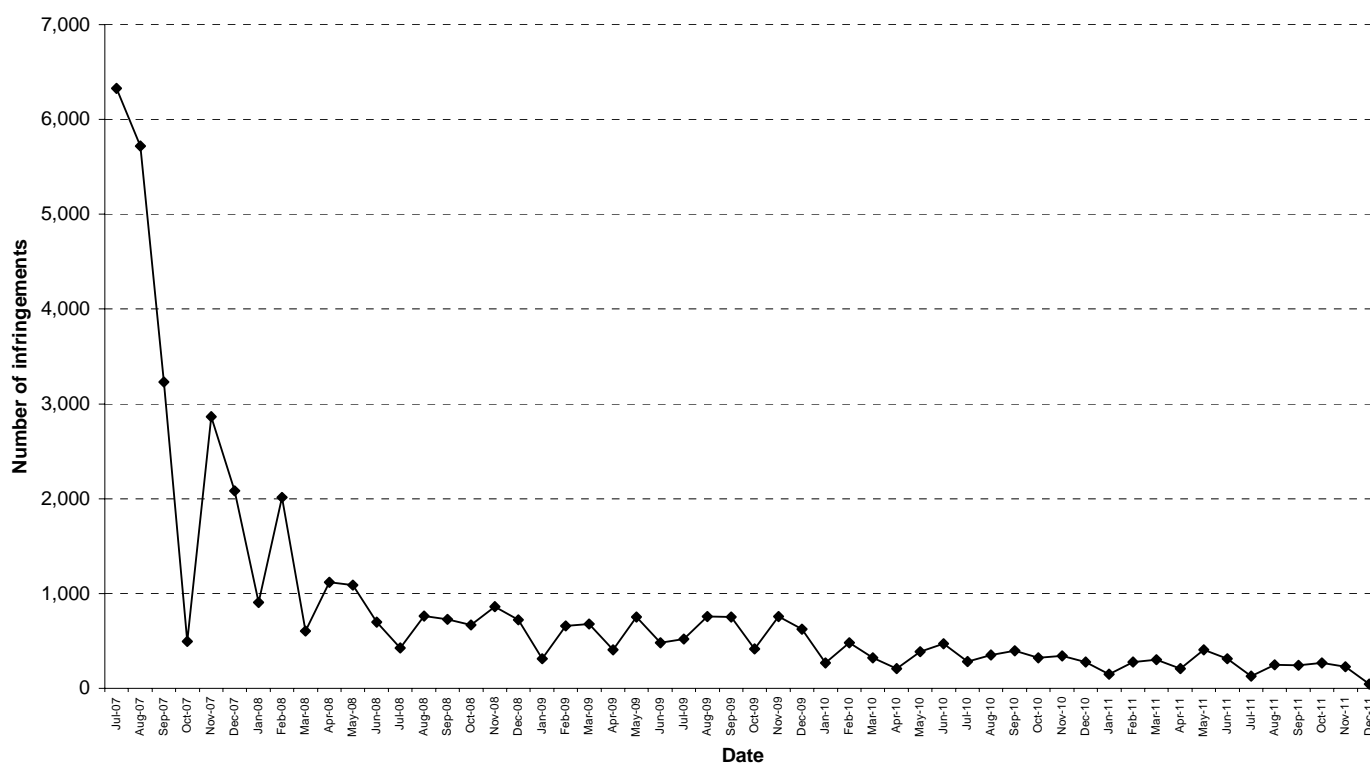
### Crashes at fixed speed camera location

Five years before – Apr 2002 to Apr 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	65	65	128	7.41
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	43	43	53	4.902



## Infringements at fixed speed camera location

HUME HIGHWAY BANKSTOWN



### Summary

The school zone fixed speed cameras on the Hume Highway, Bankstown were installed in July 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have reduced at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 128 crashes resulting in zero fatalities and 65 injuries. In the four year period 2007 – 2011 there were 53 crashes resulting in zero fatalities and 43 injuries. When compared to the pre installation period, this is a 48 per cent reduction in the annual average number of crashes and a 17 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$1.02 million in costs to the community.

Provisional crash data show there were 12 crashes resulting in zero fatalities and 14 injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed cameras at this location are found to be delivering the expected road safety benefits.

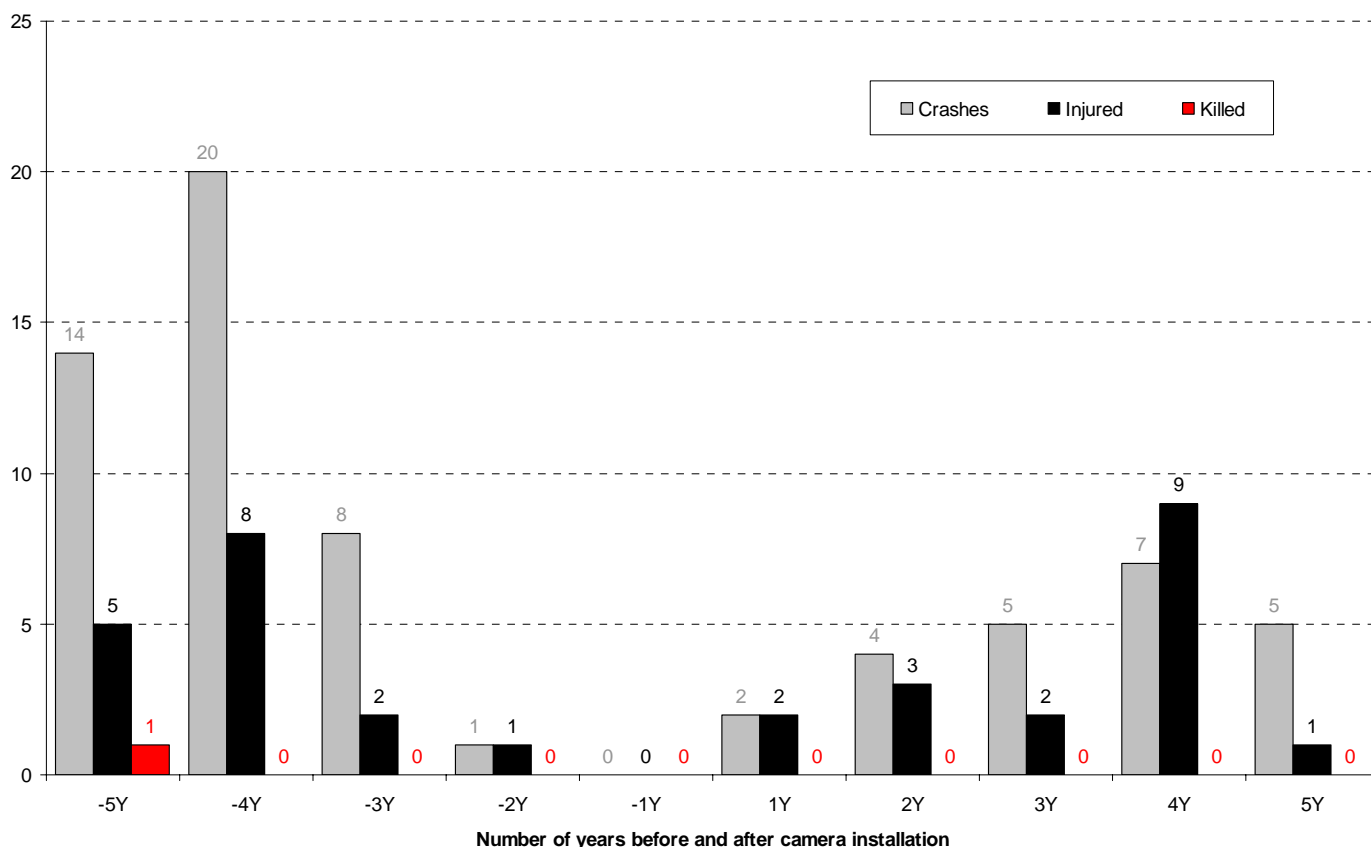
### Fixed digital speed camera - F3 Freeway, Bar Point

Location: F3 Freeway, between Jolls Bridge and Mt White Exit Ramp, Bar Point.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	10/04/2006

### Crashes at fixed speed camera location

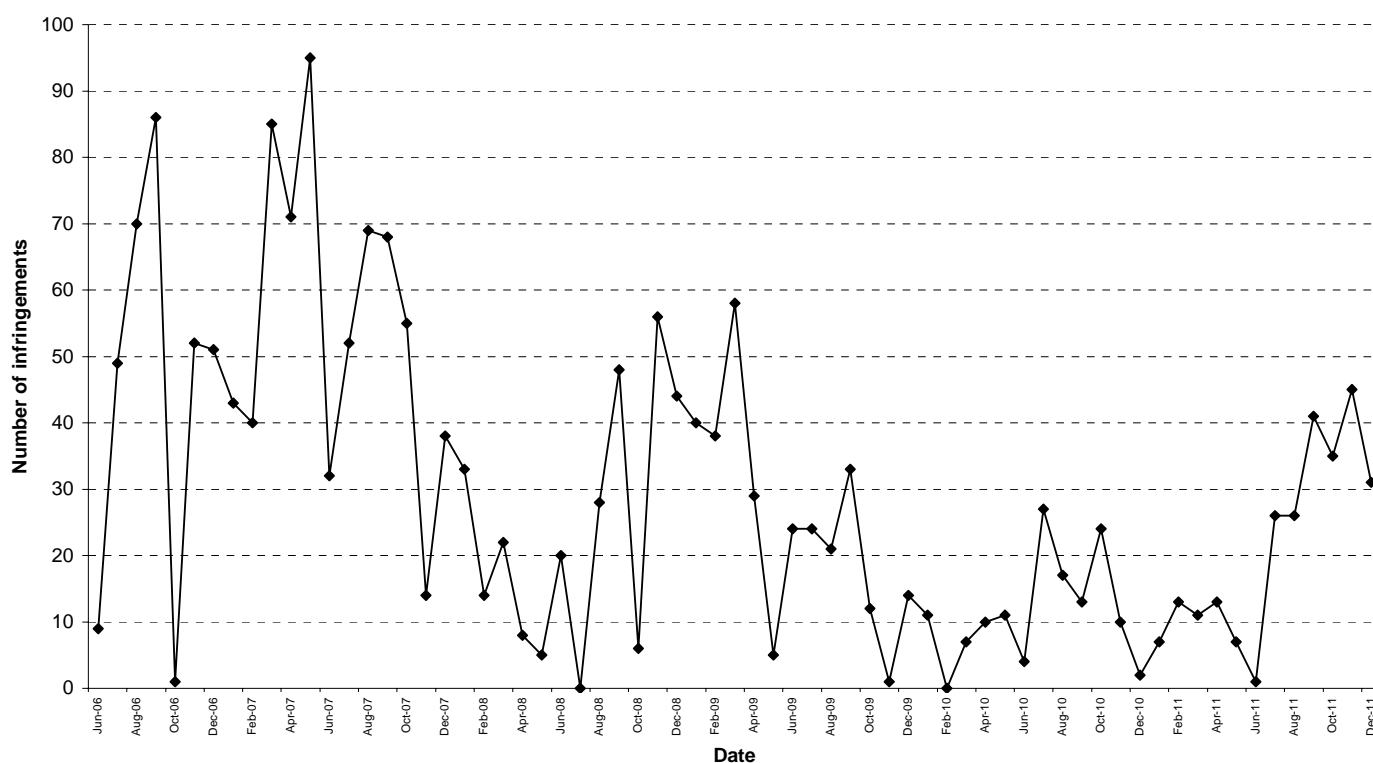
Five years before – Jan 2001 to Jan 2006 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	16	17	43	7.658
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	17	17	23	1.938





## Infringements at fixed speed camera location

F3 FREEWAY BAR POINT



### Summary

The fixed speed camera on the F3 Freeway, Bar Point was installed in April 2006. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have reduced at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 43 crashes resulting in one fatality and 16 injuries. In the five year period 2006 – 2011 there were 23 crashes resulting in zero fatalities and 17 injuries. When compared to the pre installation period, this is a 47 per cent reduction in the annual average number of crashes but no reduction in the annual average number of casualties. This has been a saving of \$5.7 million in costs to the community.

Provisional crash data show there were seven crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera - M5 Tunnel, Bardwell Park / Arncliffe

Location: M5 Tunnel, between Bexley Road and Marsh Street, Bardwell Park.

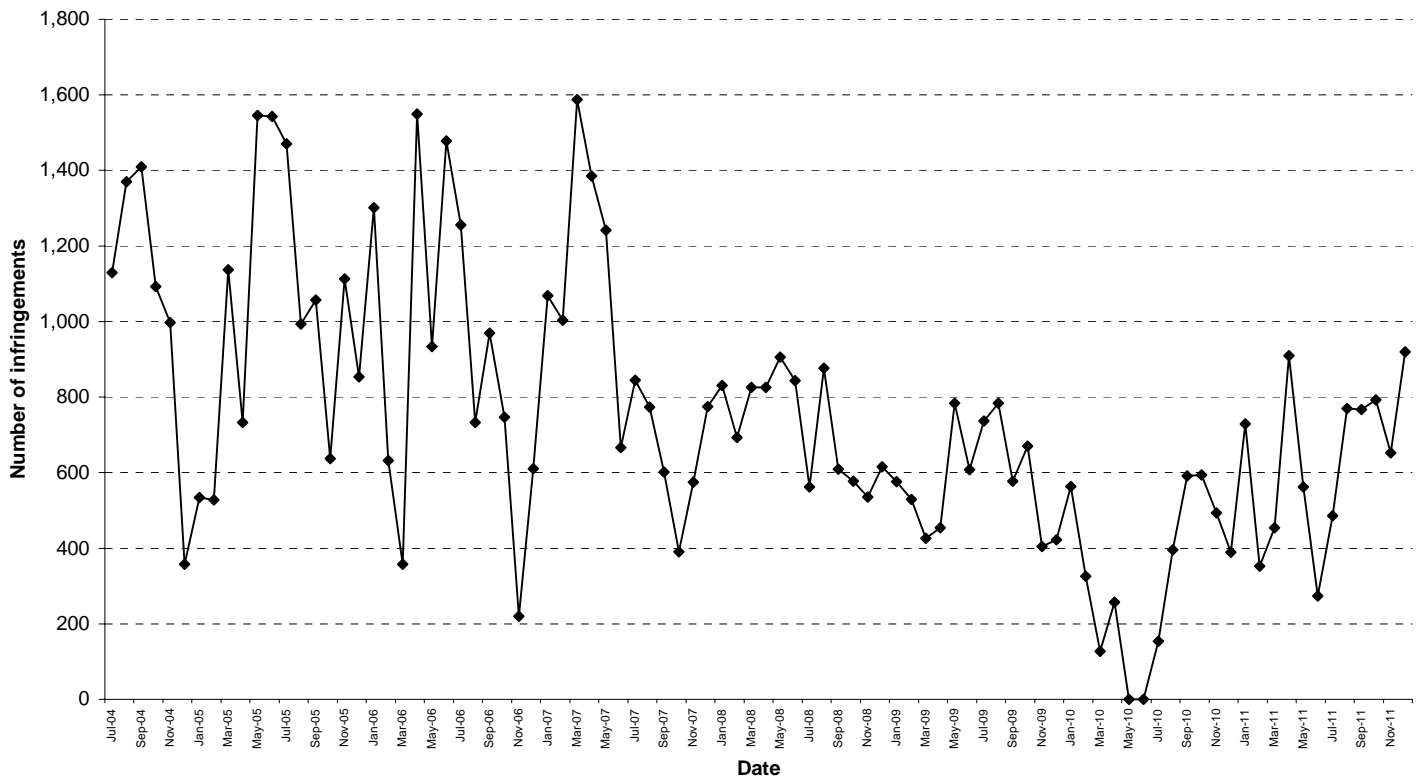
<b>Length description</b>	2190m east of camera to 1785m west of camera (eastbound)
	960m east of camera to 1775m west of camera (westbound)
<b>Total length (m)</b>	3975 (eastbound)
	3965 (westbound)
<b>Started Infringing</b>	01/08/2002

## High risk fixed speed camera location – Provisional crash data calendar year 2011

Eastbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	1	6	7	0	3	3
Westbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	4	8	12	0	8	8

## Infringements at fixed speed camera location

M5 MOTORWAY BARDWELL PARK / ARNCLIFFE



## Summary

The fixed speed cameras in the M5 Tunnel at Bardwell Park/ Arncliffe were installed in August 2002. There are two speed cameras installed at this location.

This location is appropriate for fixed speed camera enforcement as it is a high risk location that is difficult for the NSW Police Force to enforce using traditional methods. Provisional crash data show there were 19 crashes resulting in zero fatalities and 11 injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

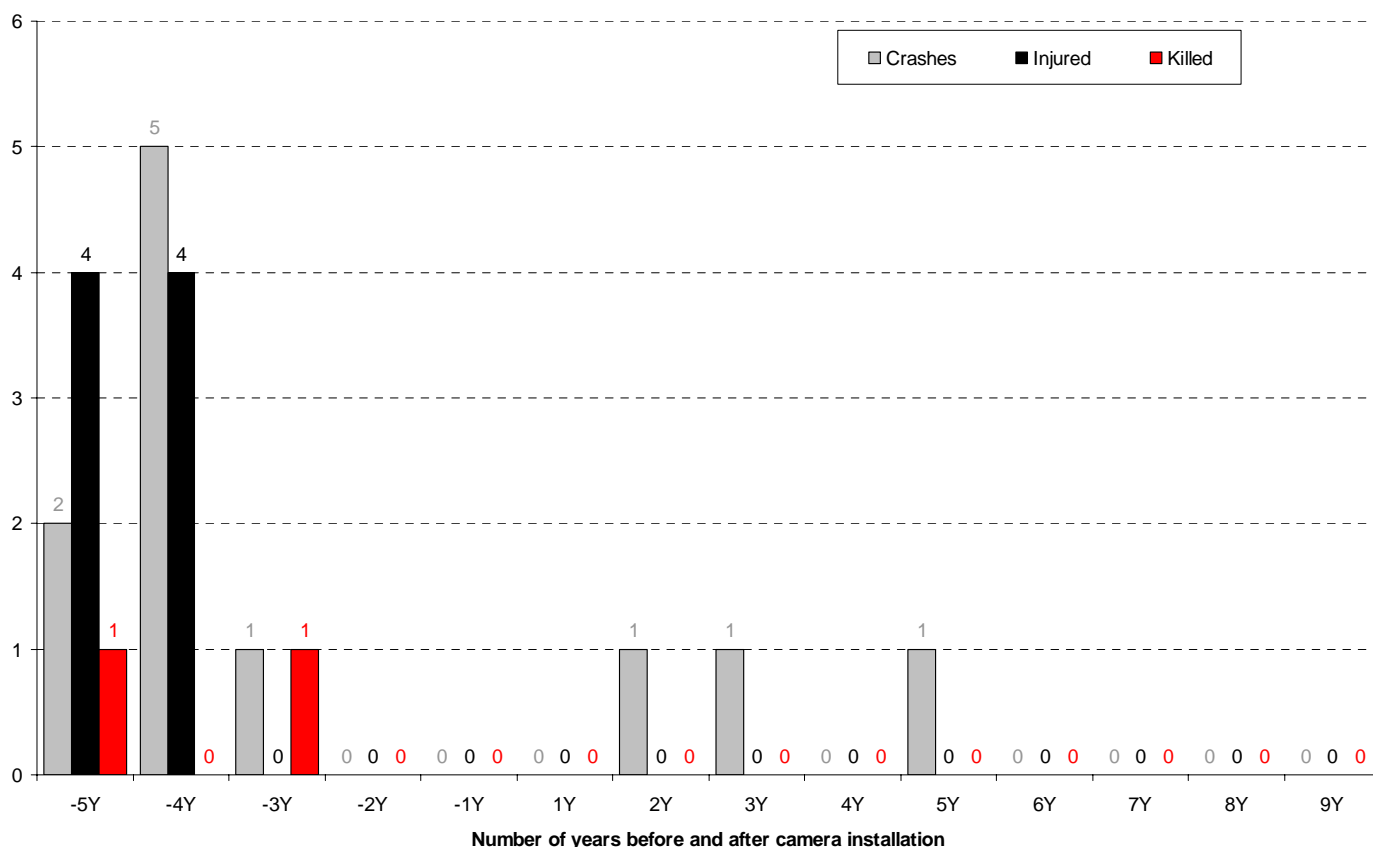
## Fixed digital speed camera – New England Highway, Ben Lomond

Location: New England Highway, between Ross Road and Ben Lomond Road, Ben Lomond.

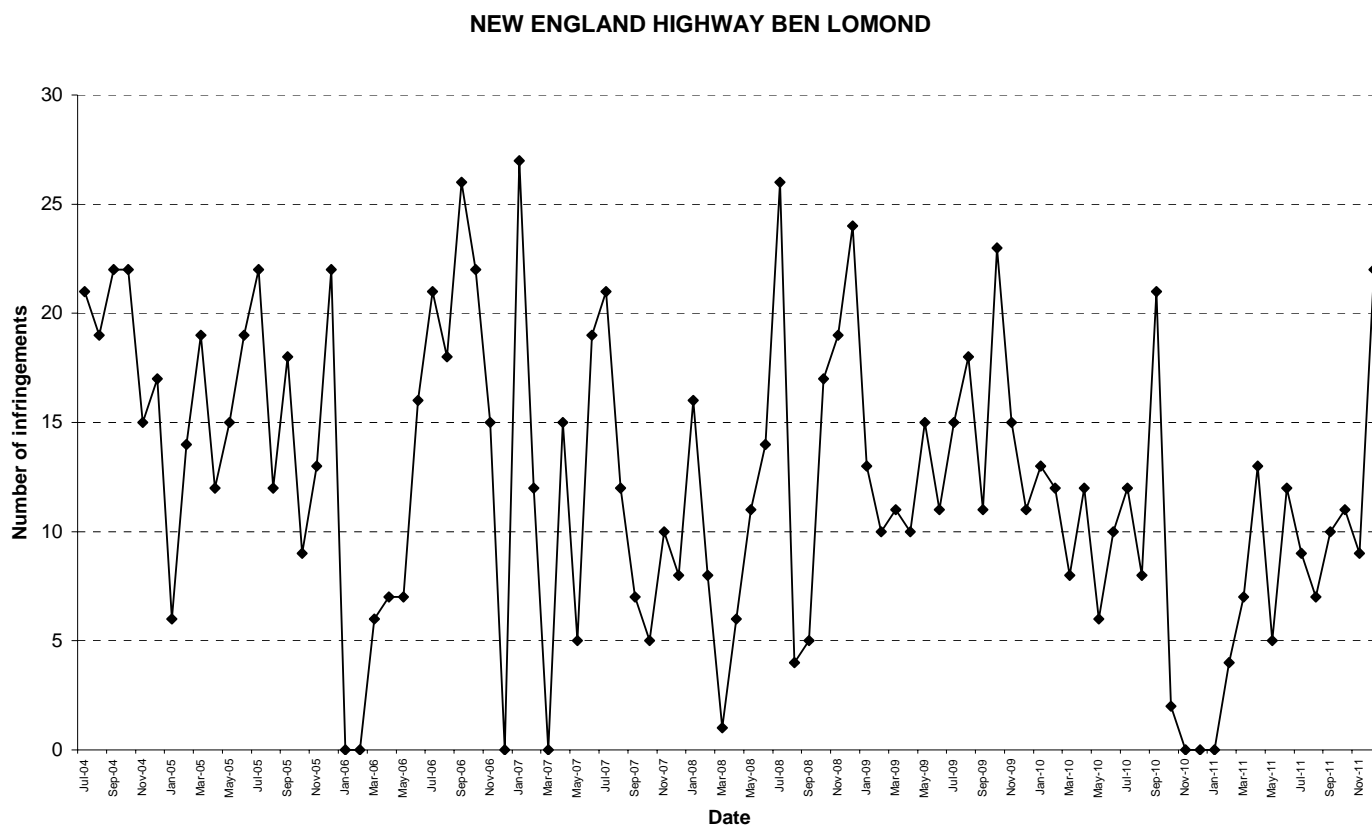
<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	04/09/2003

### Crashes at fixed speed camera location

Five years before – Jun 1998 to Jun 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	8	10	8	12.58
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	0	0	1	0



## Infringements at fixed speed camera location



### Summary

The fixed speed camera on the New England Highway, Ben Lomond was installed in September 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have reduced at this location. In the five years prior to the installation of the fixed speed camera at this location, there were eight crashes resulting in two fatalities and eight injuries. In the five year period 2006 – 2011 there was one crash resulting in zero fatalities and zero injuries. When compared to the pre installation period, this is a 88 per cent reduction in the annual average number of crashes and a 100 per cent reduction in the annual average number of casualties. This has been a saving of \$12.6 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

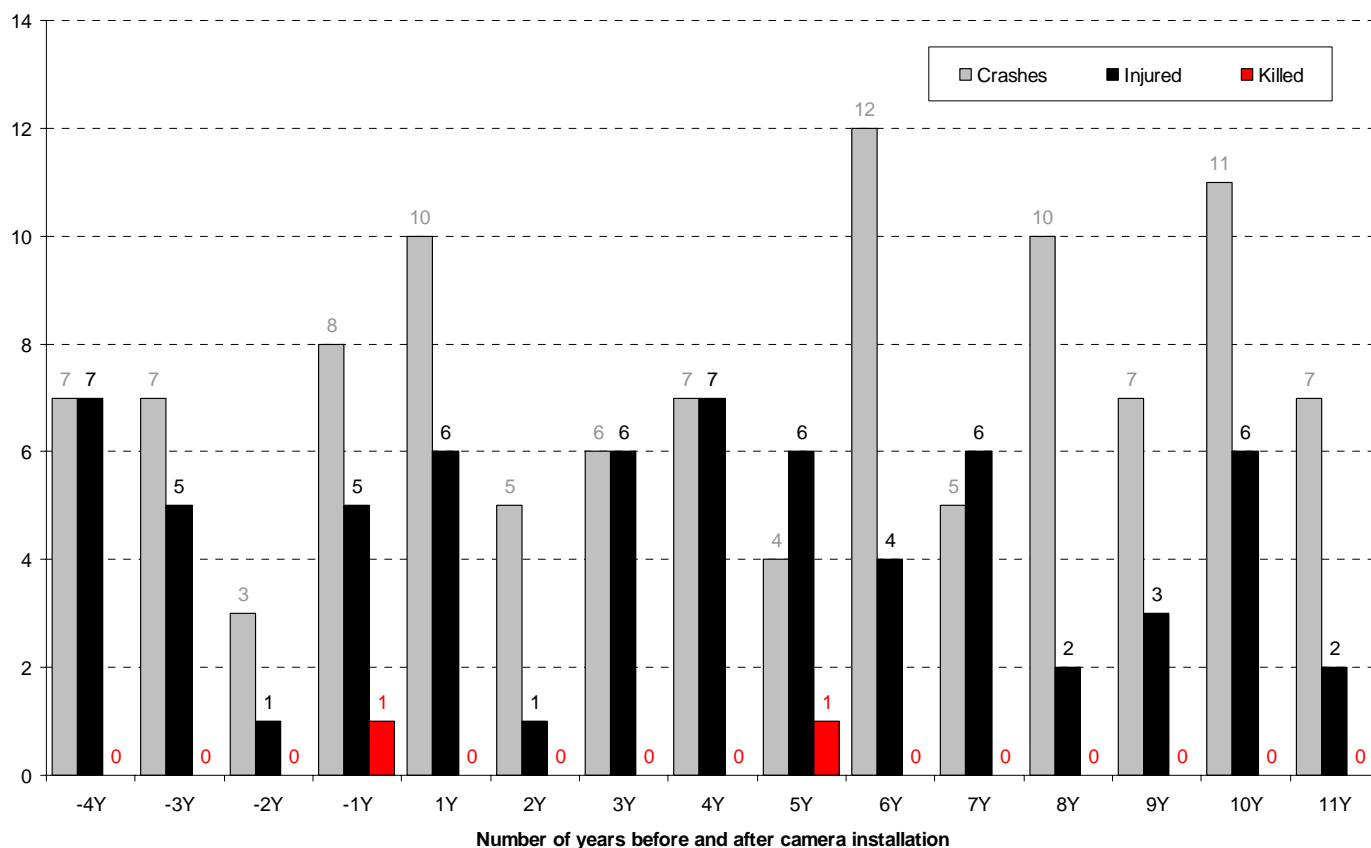
## Fixed digital speed camera – Richmond Road, Berkshire Park

Location: Richmond Road, between Llandilo Road and Sanctuary Drive, Berkshire Park.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	30/06/2000

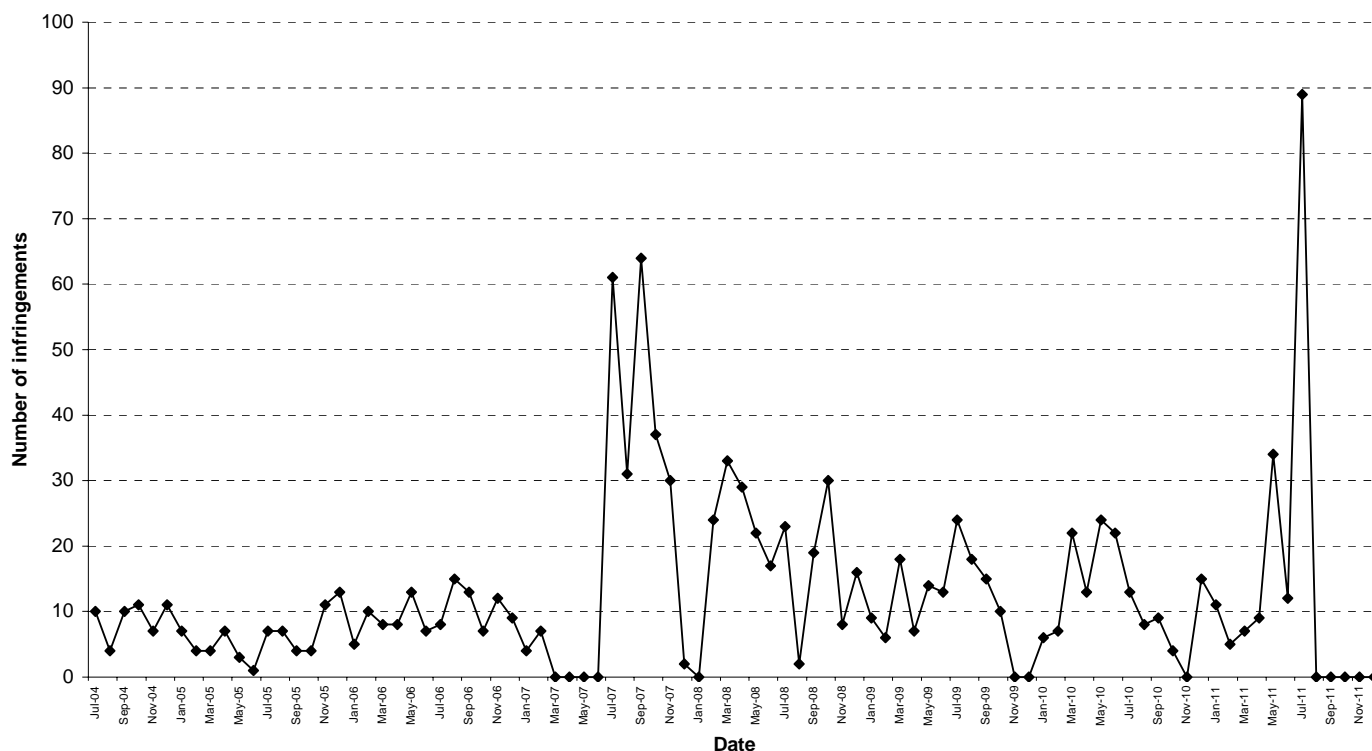
### Crashes at fixed speed camera location

Four year before – Mar 1996 to Mar 2000 (No data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	18	19	25	7.886
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	19	19	40	2.166



## Infringements at fixed speed camera location

### RICHMOND ROAD BERKSHIRE PARK



### Summary

The fixed speed camera at Richmond Road, Berkshire Park was installed in June 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have increased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 25 crashes resulting in one fatality and 18 injuries. In the five year period 2006 – 2011 there were 40 crashes resulting in zero fatalities and 19 injuries. When compared to the pre installation period, this is a 28 per cent increase in the annual average number of crashes, however more detailed analysis of the crashes at this location indicates there has been a reduction in speed-related crashes from 16 per cent to five per cent. When compared to the pre installation period, there has been a 20 per cent reduction in the annual average number of casualties. This has been a saving of \$7.7 million in costs to the community.

Provisional crash data show there were six crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements in the period from June 2007 may be attributed to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

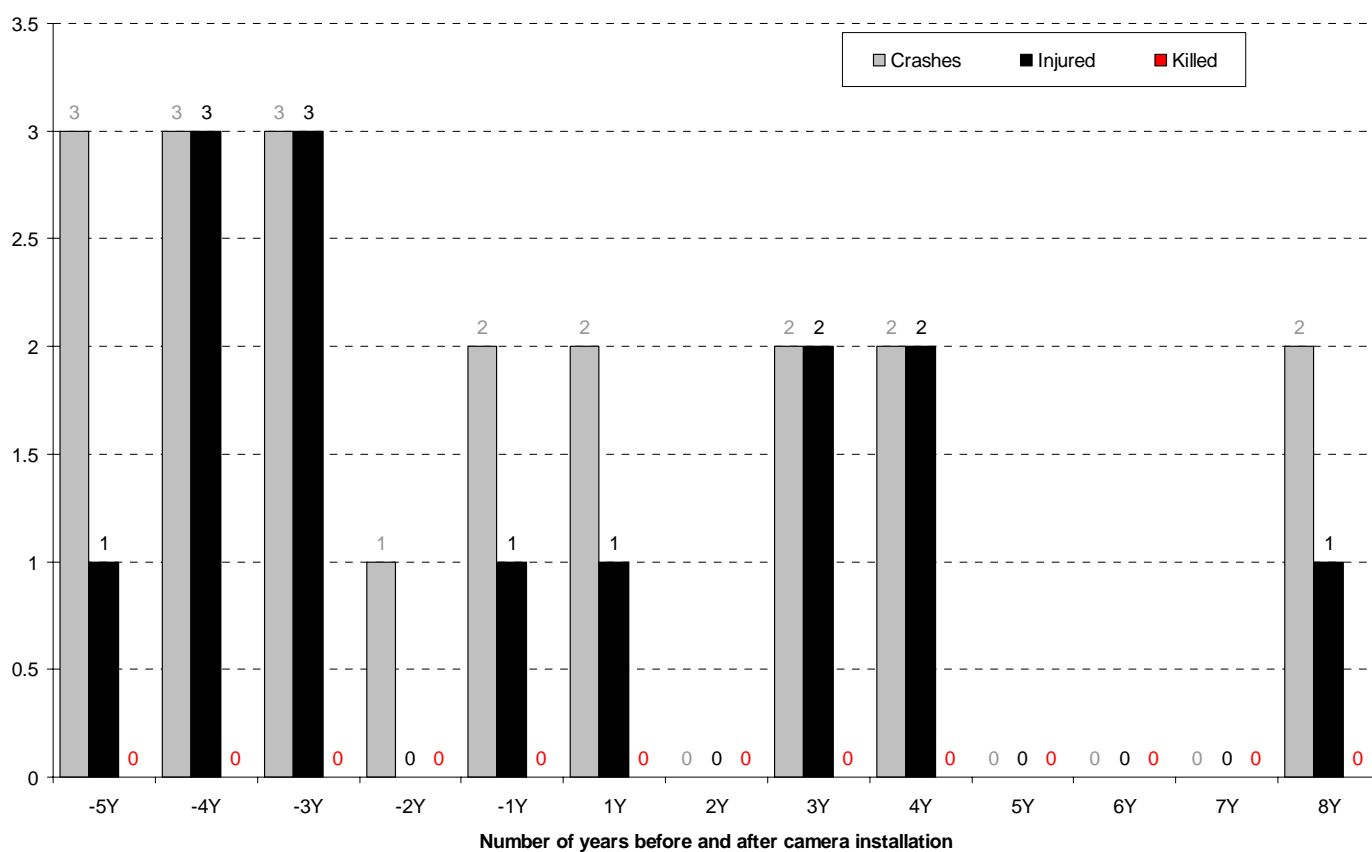
## Fixed digital speed camera – Princes Highway, Berry

Location: Princes Highway, between Kangaroo Valley Road and Victoria Street, Berry.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	28/04/2003

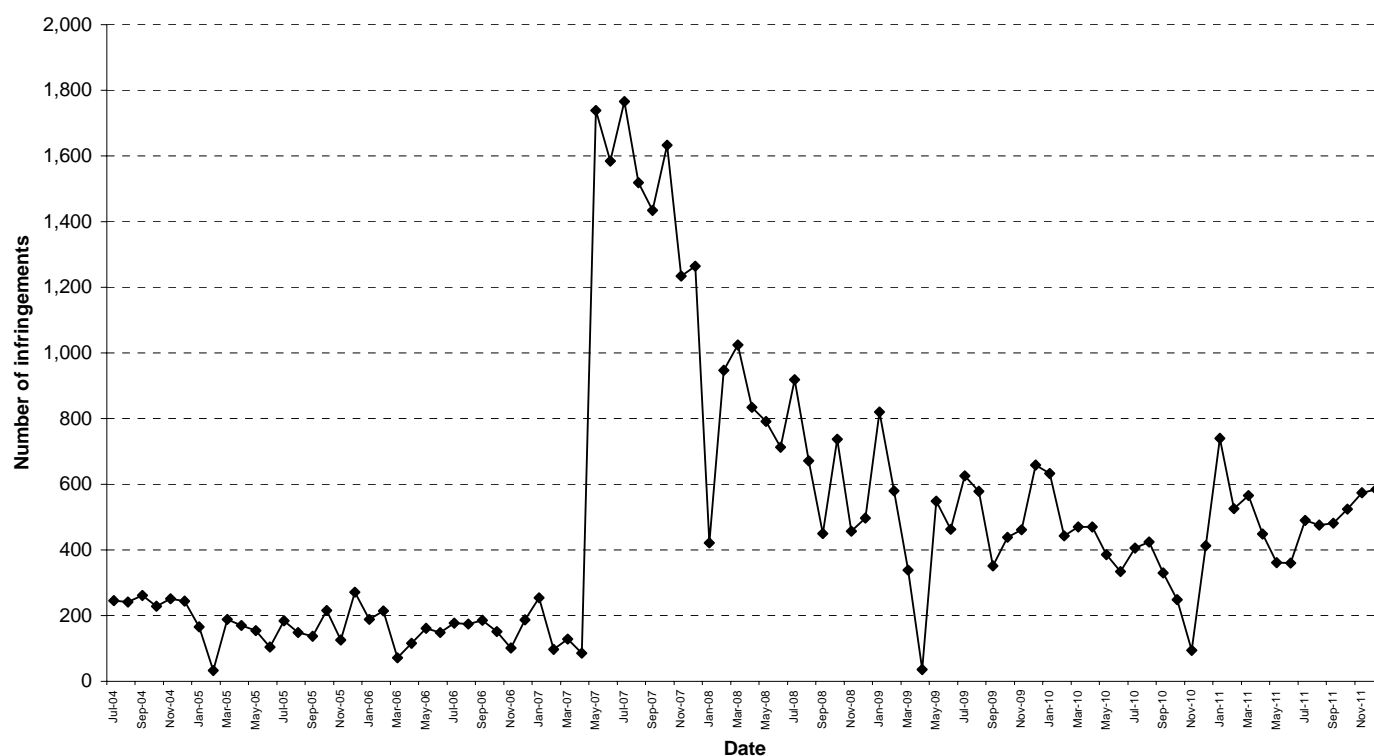
### Crashes at fixed speed camera location

Five years before – Jan 1998 to Jan 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	8	8	12	0.912
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	3	3	4	0.342



## Infringements at fixed speed camera location

### PRINCES HIGHWAY BERRY



### Summary

The fixed speed camera on the Princes Highway, Berry was installed in April 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 12 crashes resulting in zero fatalities and eight injuries. In the five year period 2006 – 2011 there were four crashes resulting in zero fatalities and three injuries. When compared to the pre installation period, this is a 67 per cent reduction in the annual average number of crashes and a 63 per cent reduction in the annual average number of casualties. This has been a saving of \$570,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. The spike in infringements from May 2007 can be attributed to the speed limit change on this road from 60 km/h to 50 km/h.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.



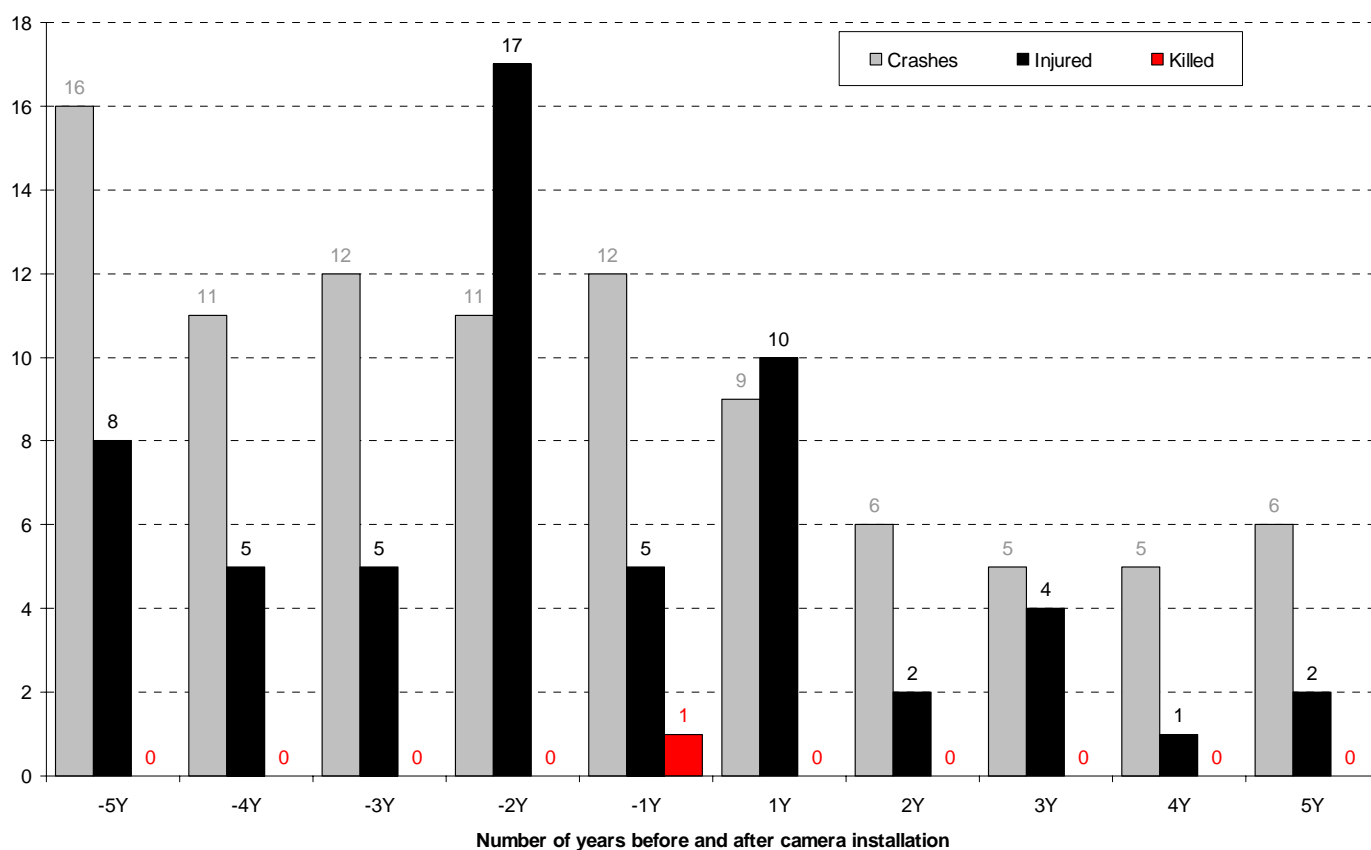
## Fixed digital speed camera – Bexley Road, Bexley North

Location: Bexley Road, between Kingsland Road North and Miller Avenue, Bexley North.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	29/05/2006

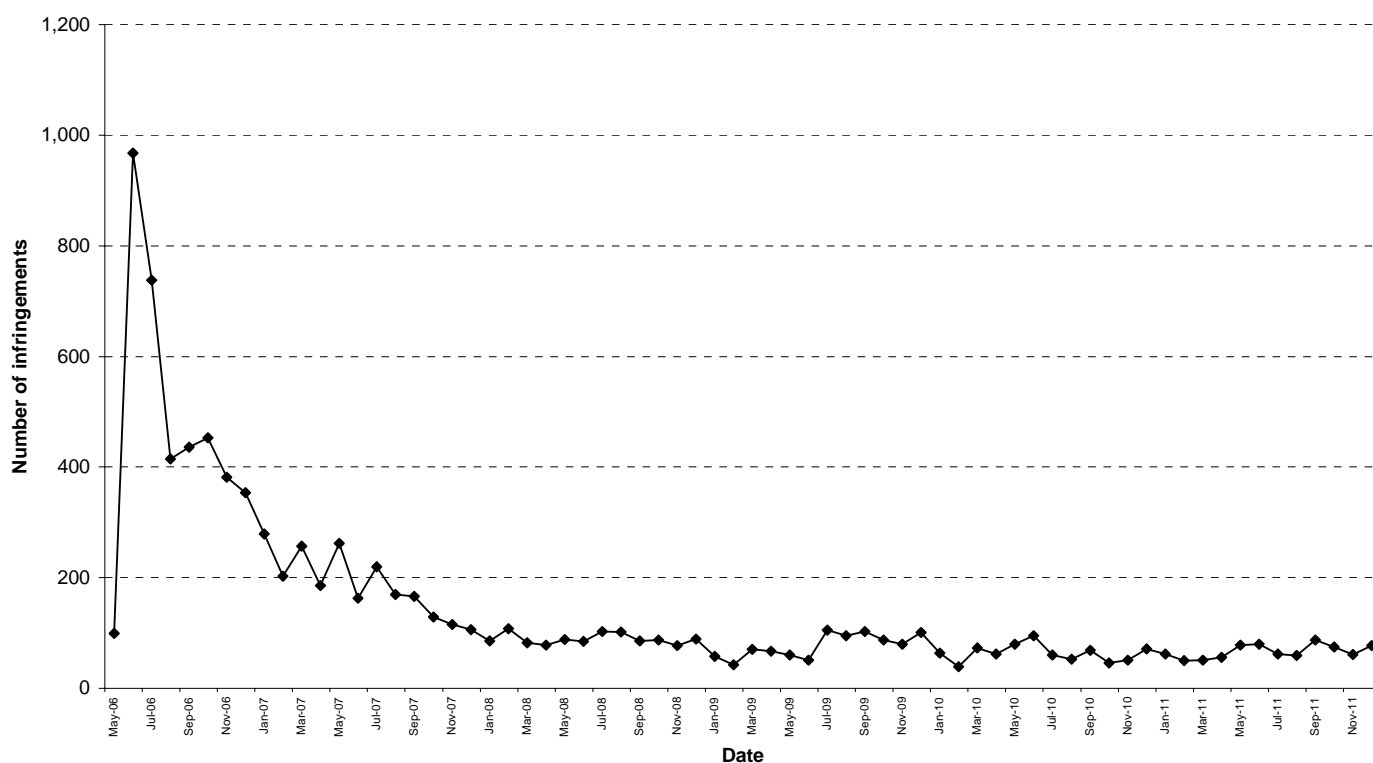
### Crashes at fixed speed camera location

Five years before – Mar 2001 to Feb 2006 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	40	41	62	10.394
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	19	19	31	2.166



## Infringements at fixed speed camera location

BEXLEY ROAD BEXLEY NORTH



### Summary

The fixed speed camera at Bexley Road, Bexley North was installed in May 2006. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 62 crashes resulting in one fatality and 40 injuries. In the five year period 2006 – 2011 there were 31 crashes resulting in zero fatalities and 19 injuries. When compared to the pre installation period, this is a 50 per cent reduction in the annual average number of crashes and a 54 per cent reduction in the annual average number of casualties. This has been a saving of \$8.2 million in costs to the community.

Provisional crash data show there were nine crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since this camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

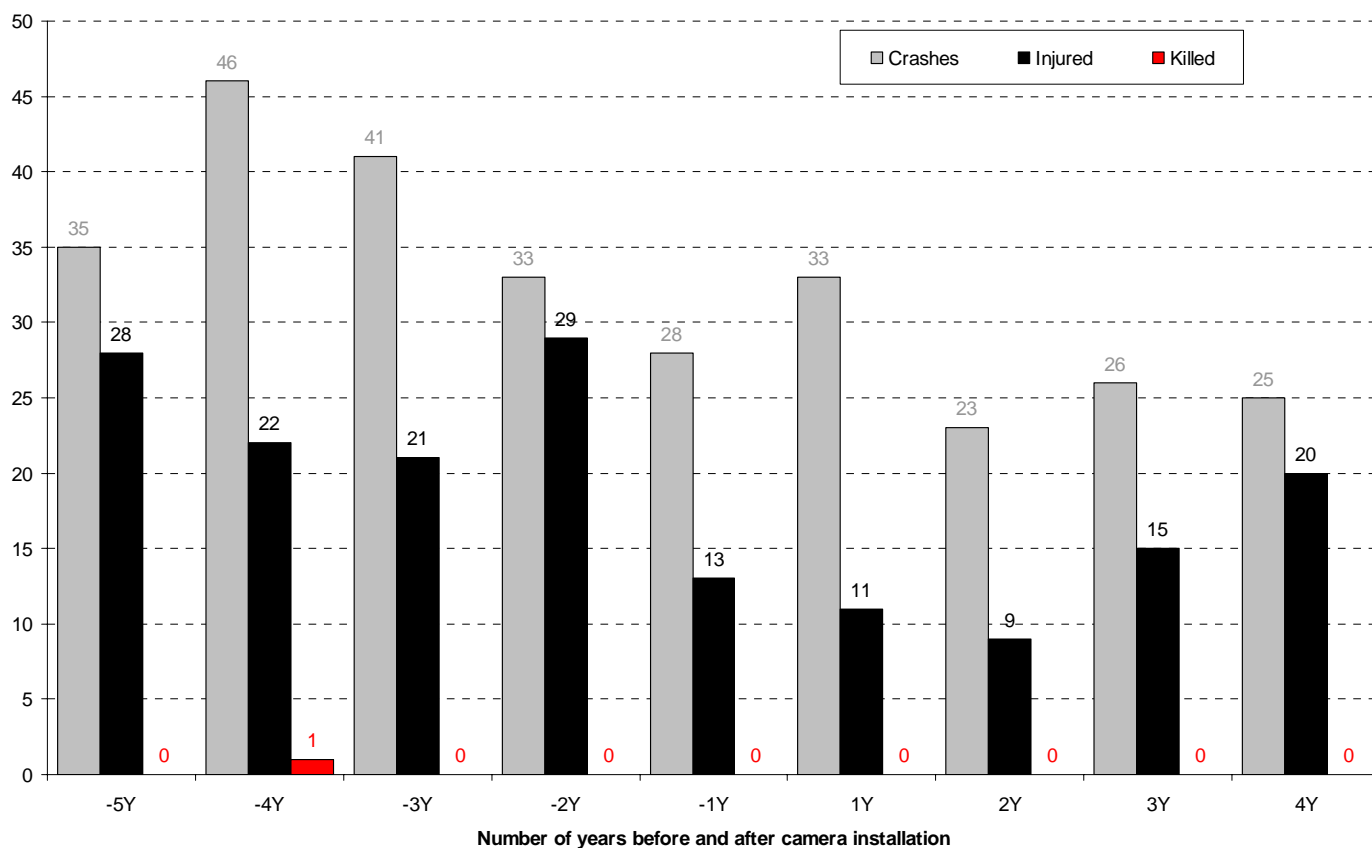
## Fixed digital speed camera – King Georges Road, Beverly Hills (school zone)

Location: King Georges Road, between Stoney Creek Road and Edgbaston Road, Beverly Hills.  
 School zone: Beverly Hills Girls High School.

<b>Length description</b>	480m south of camera to 560m north of cameras
<b>Total length (m)</b>	1040 (Patch to Patch)
<b>Started Infringing</b>	9/07/2007 (camera 1 - northbound) 20/07/2007 (camera 2 -southbound)

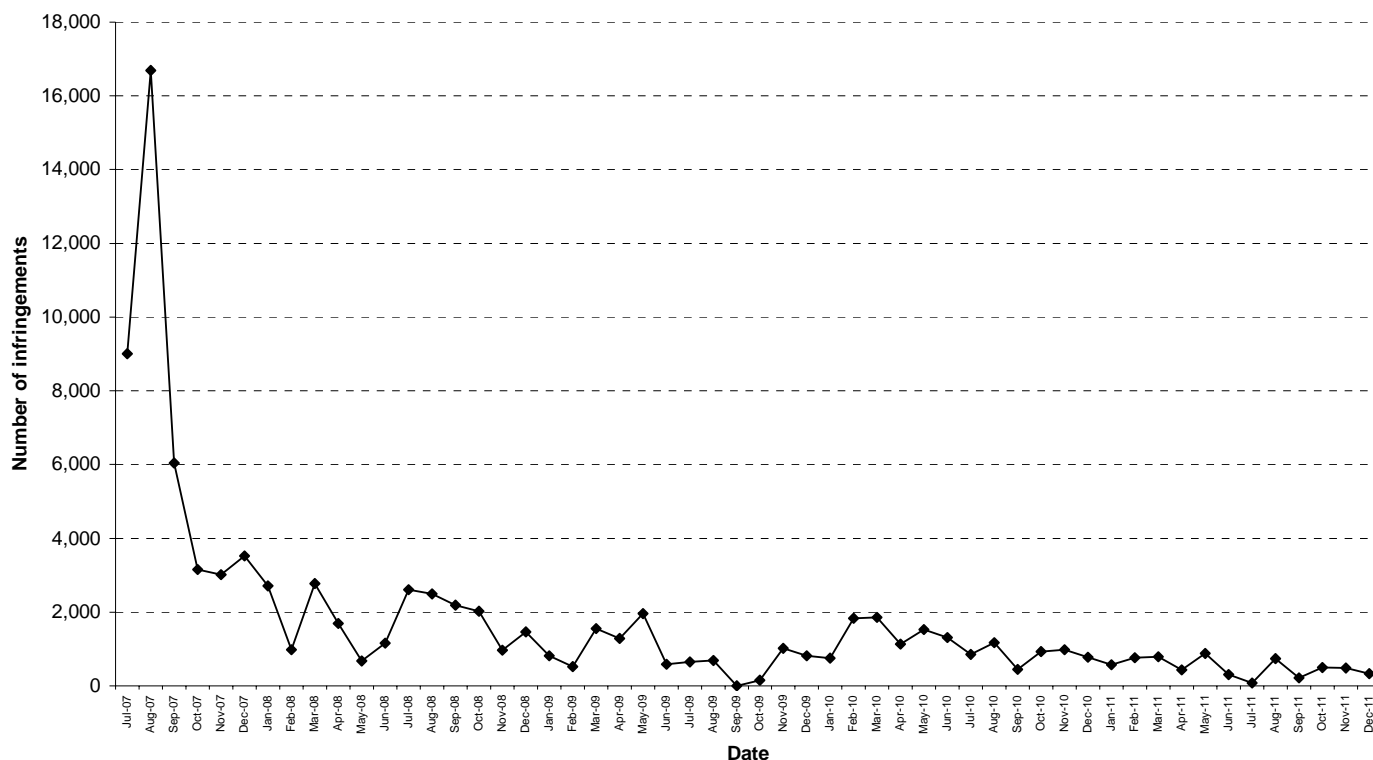
### Crashes at fixed speed camera location

Five years before – Apr 2002 to Apr 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	113	114	183	18.716
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	55	55	107	6.27



## Infringements at fixed speed camera location

KING GEORGES ROAD BEVERLY HILLS



### Summary

The school zone fixed speed cameras at King Georges Road, Beverly Hills were installed in July 2007 (northbound on 9 July; southbound on 20 July). There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed cameras at this location, there were 183 crashes resulting in one fatality and 113 injuries. In the four year period 2007 – 2011 there were 107 crashes resulting in zero fatalities and 55 injuries. When compared to the pre installation period, this is a 27 per cent reduction in the annual average number of crashes and a 40 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$8.7 million in costs to the community.

Provisional crash data show there were 13 crashes resulting in zero fatalities and 13 injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

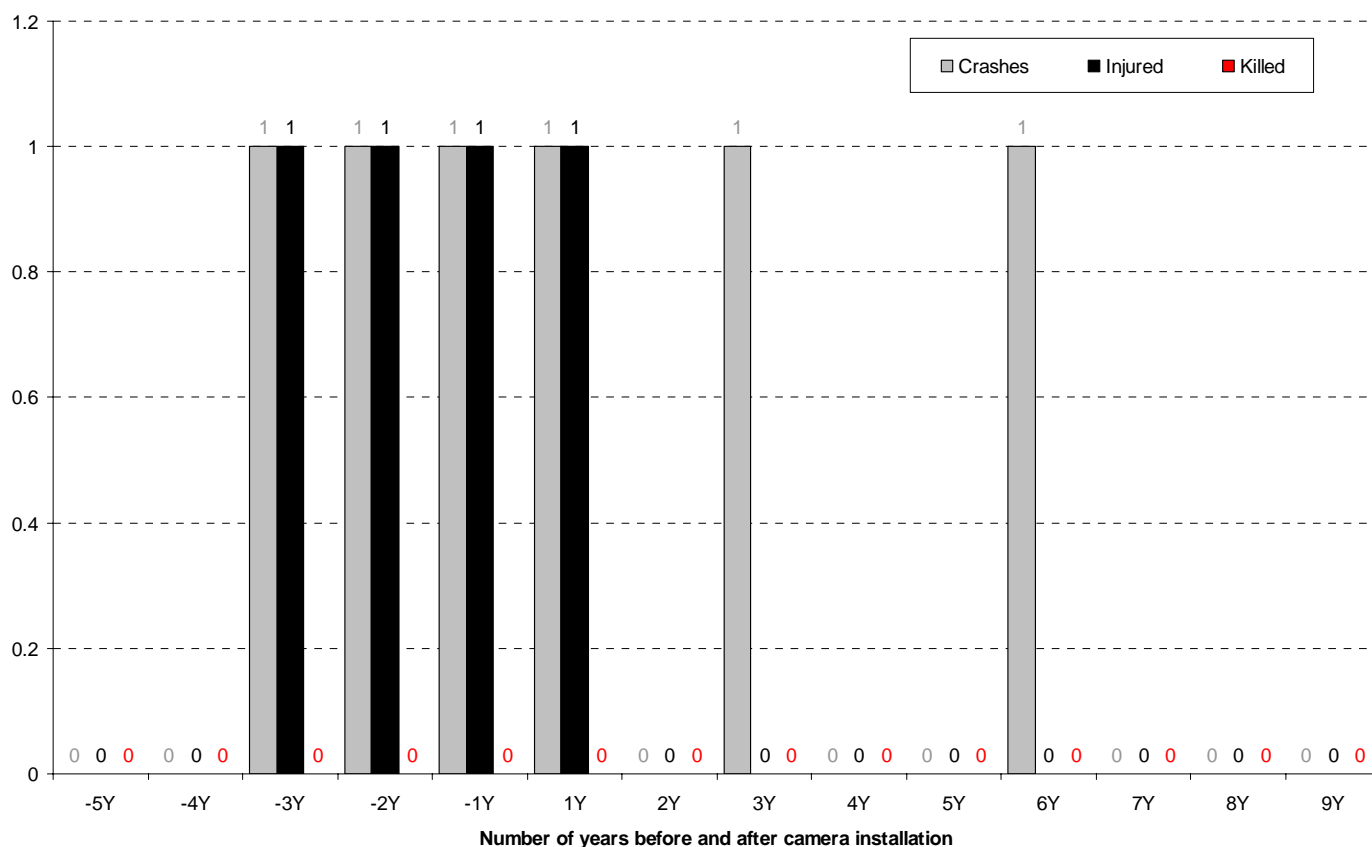
### Fixed digital speed camera – New England Highway, Blandford

Location: New England Highway, between Hayles Street and Mills Street, Blandford.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	10/04/2002

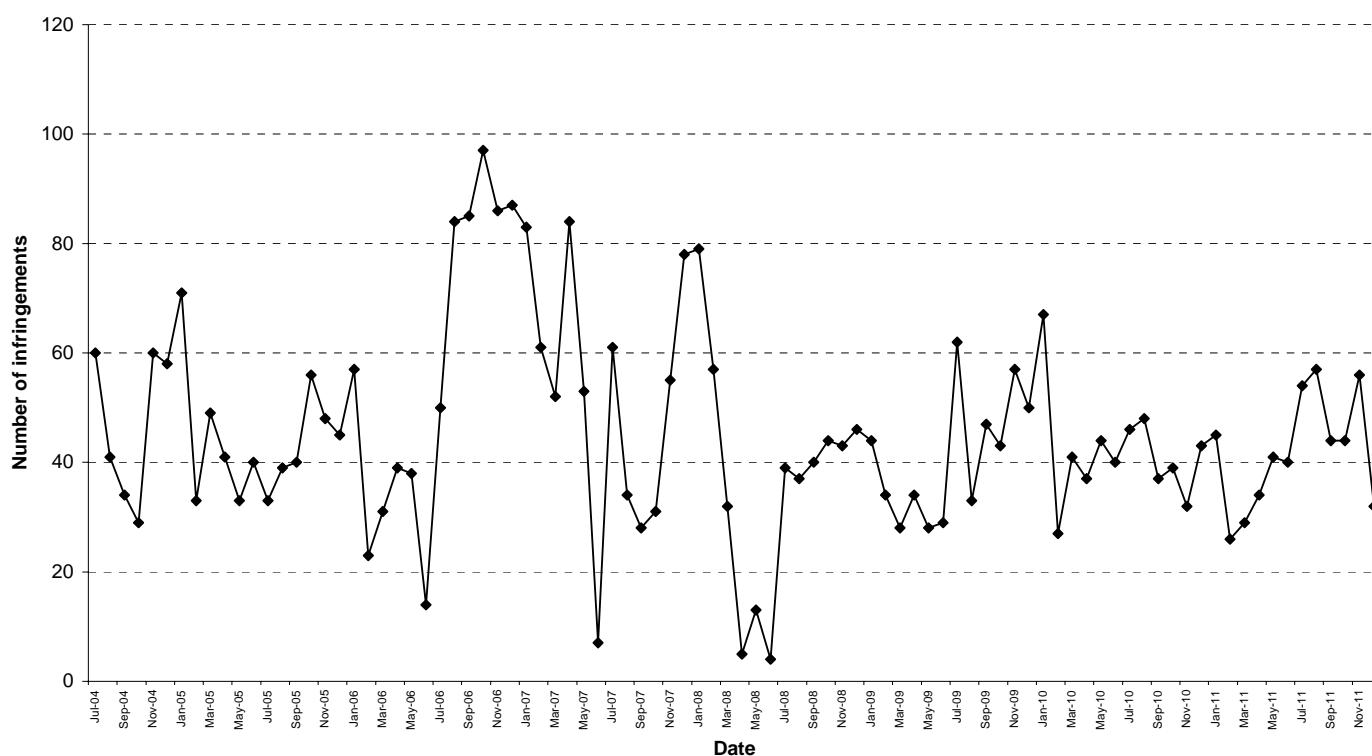
### Crashes at fixed speed camera location

Five years before – Jan 1997 to Jan 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	3	3	3	0.342
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	0	0	1	0



## Infringements at fixed speed camera location

### NEW ENGLAND HIGHWAY BLANDFORD



### Summary

The fixed speed camera on the New England Highway, Blandford was installed in April 2004. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were three crashes resulting in zero fatalities and three injuries. In the five year period 2006 – 2011 there was one crash resulting in zero fatalities and zero injuries. When compared to the pre installation period, this is a 67 per cent reduction in the annual average number of crashes and a 100 per cent reduction in the annual average number of casualties. This has been a saving of \$342,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

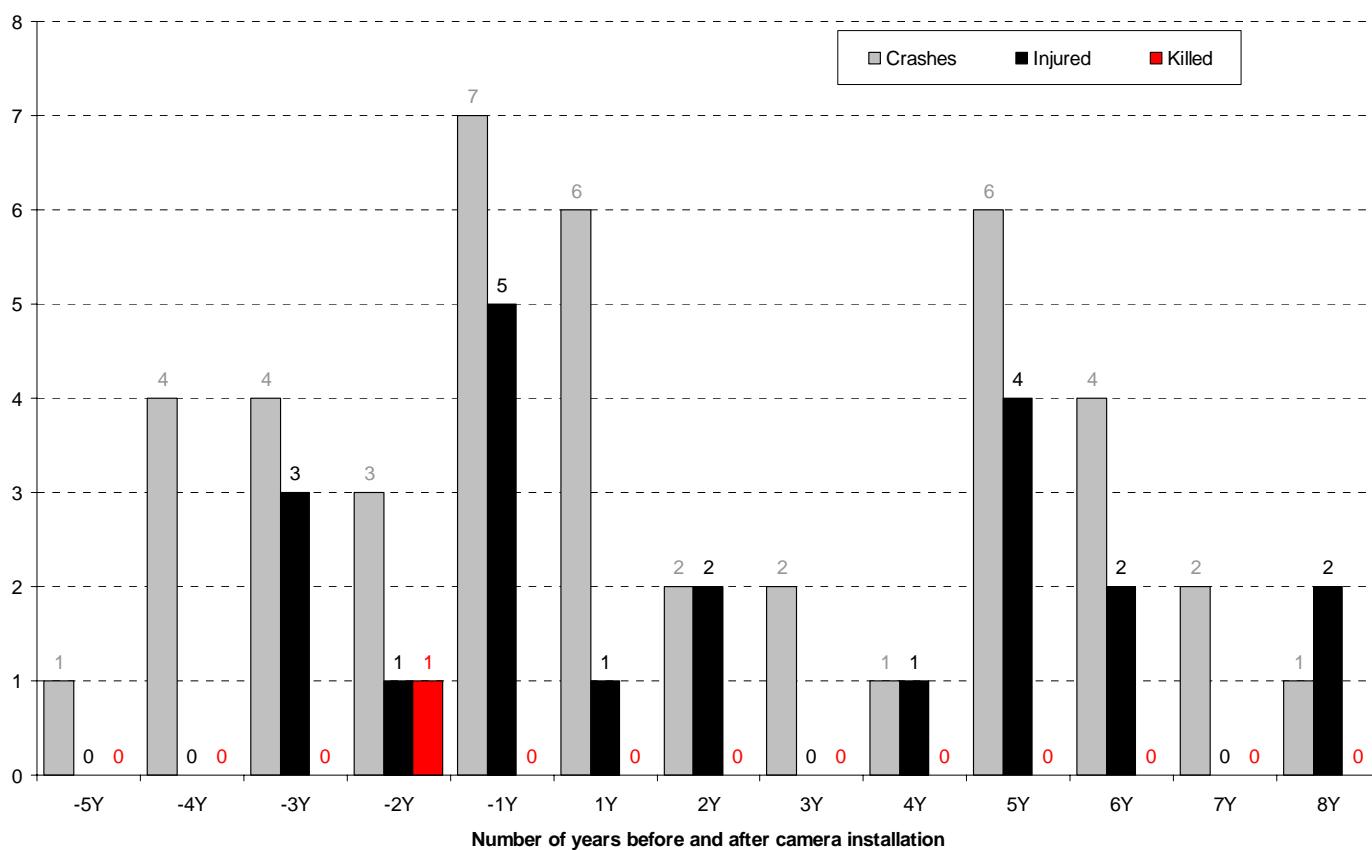
## Fixed digital speed camera – Bolong Road, Bomaderry

Location: Bolong Road, between Beinda Street and Coomea Street, Bomaderry.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	31/03/2003

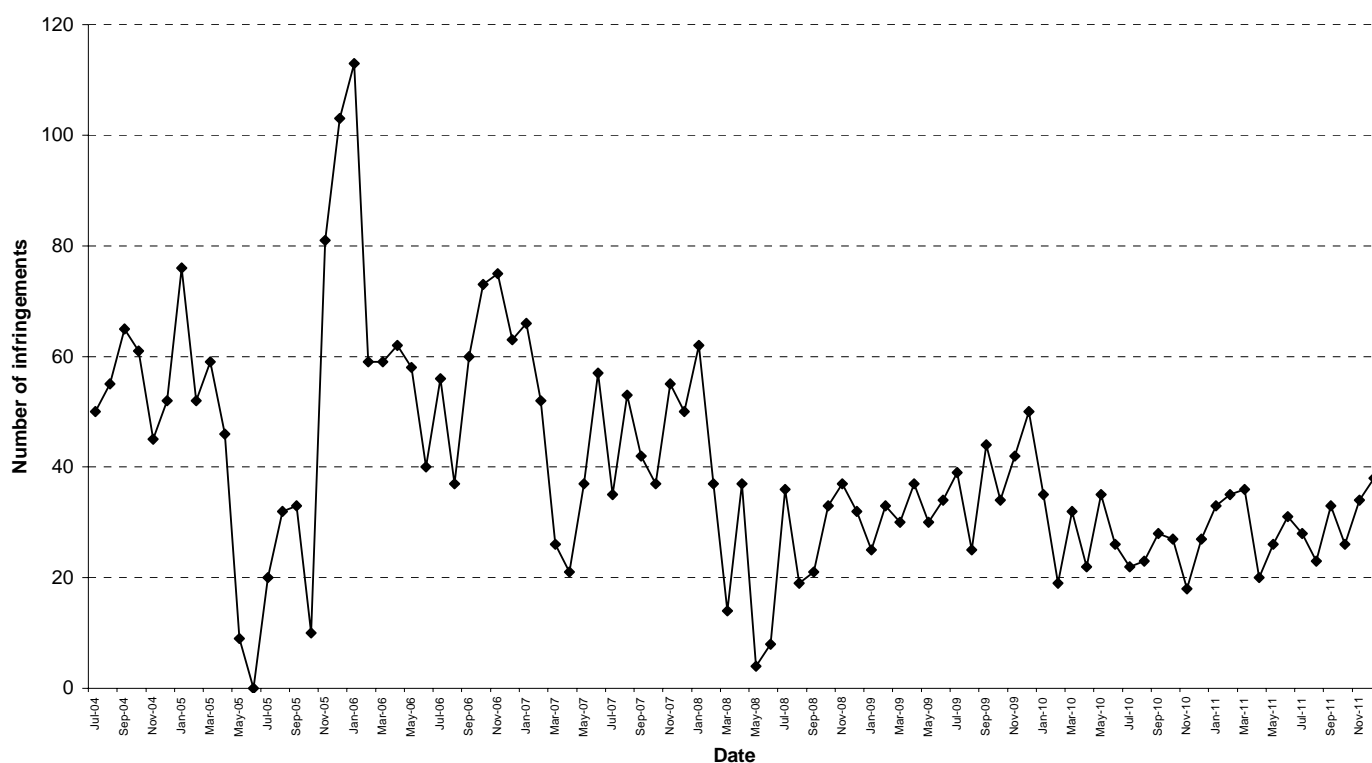
### Crashes at fixed speed camera location

Five years before – Dec 1997 to Dec 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	9	10	19	6.86
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	9	9	14	1.026



## Infringements at fixed speed camera location

BOLONG ROAD BOMADERRY



### Summary

The fixed speed camera at Bolong Road, Bomaderry was installed in March 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 19 crashes resulting in one fatality and nine injuries. In the five year period 2006 – 2011 there were 14 crashes resulting in zero fatalities and nine injuries. When compared to the pre installation period, this is a 26 per cent reduction in the annual average number of crashes and a 10 per cent reduction in the annual average number of casualties. This has been a saving of \$5.8 million in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.



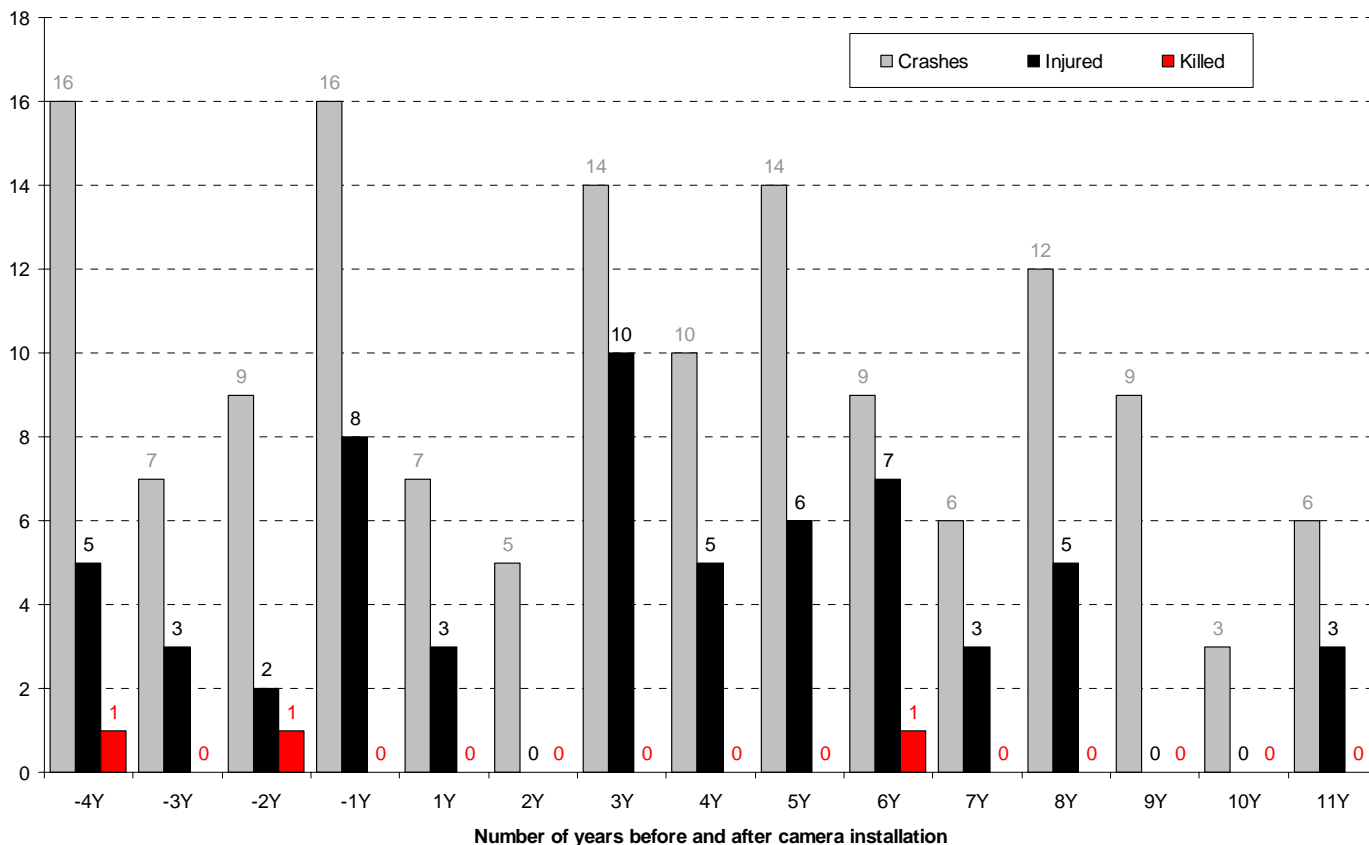
## Fixed digital speed camera – Elizabeth Drive, Bonnyrigg

Location: Elizabeth Drive, between Brown Road and Humphries Road, Bonnyrigg.

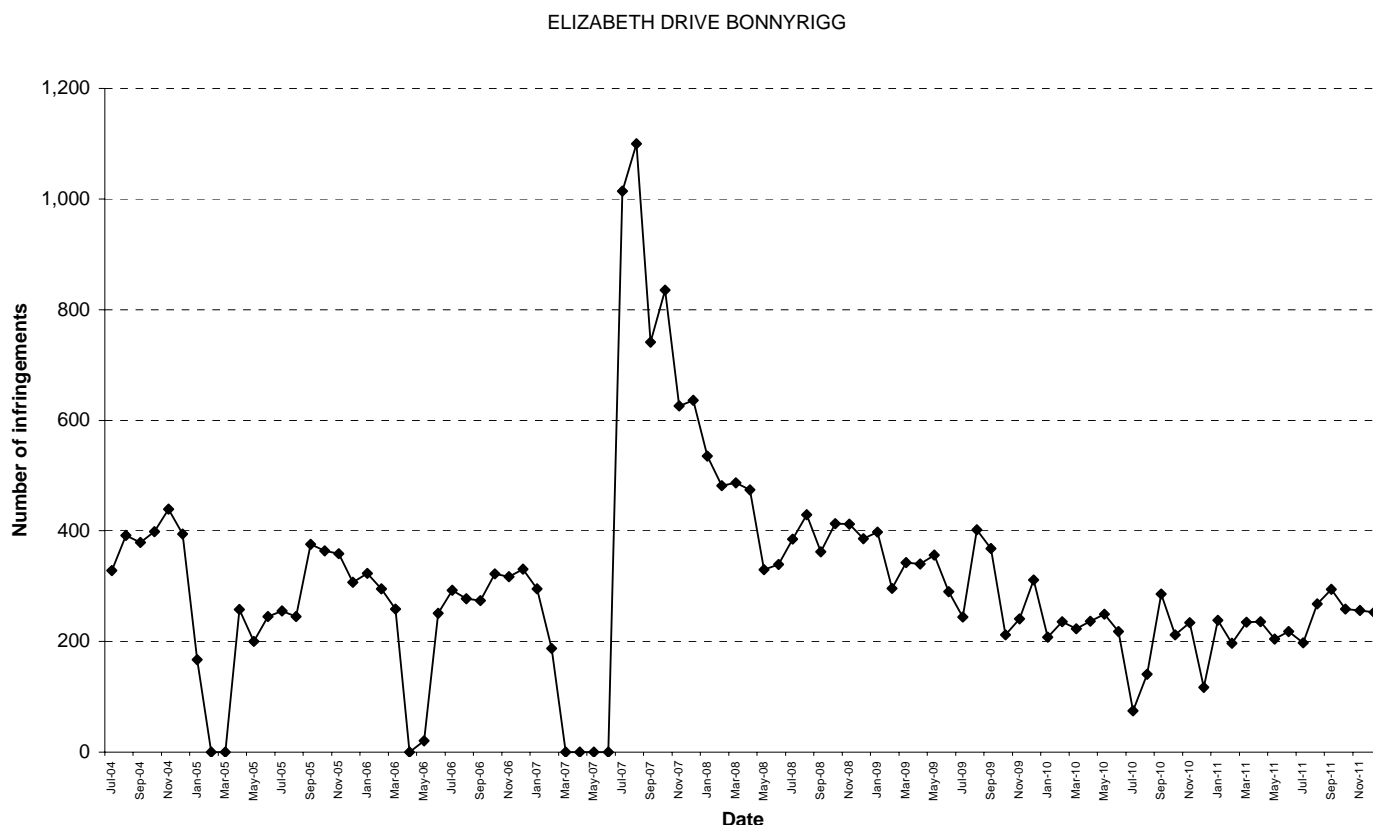
<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	07/07/2000

### Crashes at fixed speed camera location

Four year before – Apr 1996 to Apr 2000 (No data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	18	20	48	13.72
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	11	11	36	1.254



## Infringements at fixed speed camera location



### Summary

The fixed speed camera on Elizabeth Drive, Bonnyrigg was installed in July 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 48 crashes resulting in two fatalities and 18 injuries. In the five year period 2006 – 2011 there were 36 crashes resulting in zero fatalities and 11 injuries. When compared to the pre installation period, this is a 40 per cent reduction in the annual average number of crashes and a 56 per cent reduction in the annual average number of casualties. This has been a saving of \$15.9 million in costs to the community.

Provisional crash data show there were 10 crashes resulting in zero fatalities and 10 injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements from July 2007 may be attributed to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

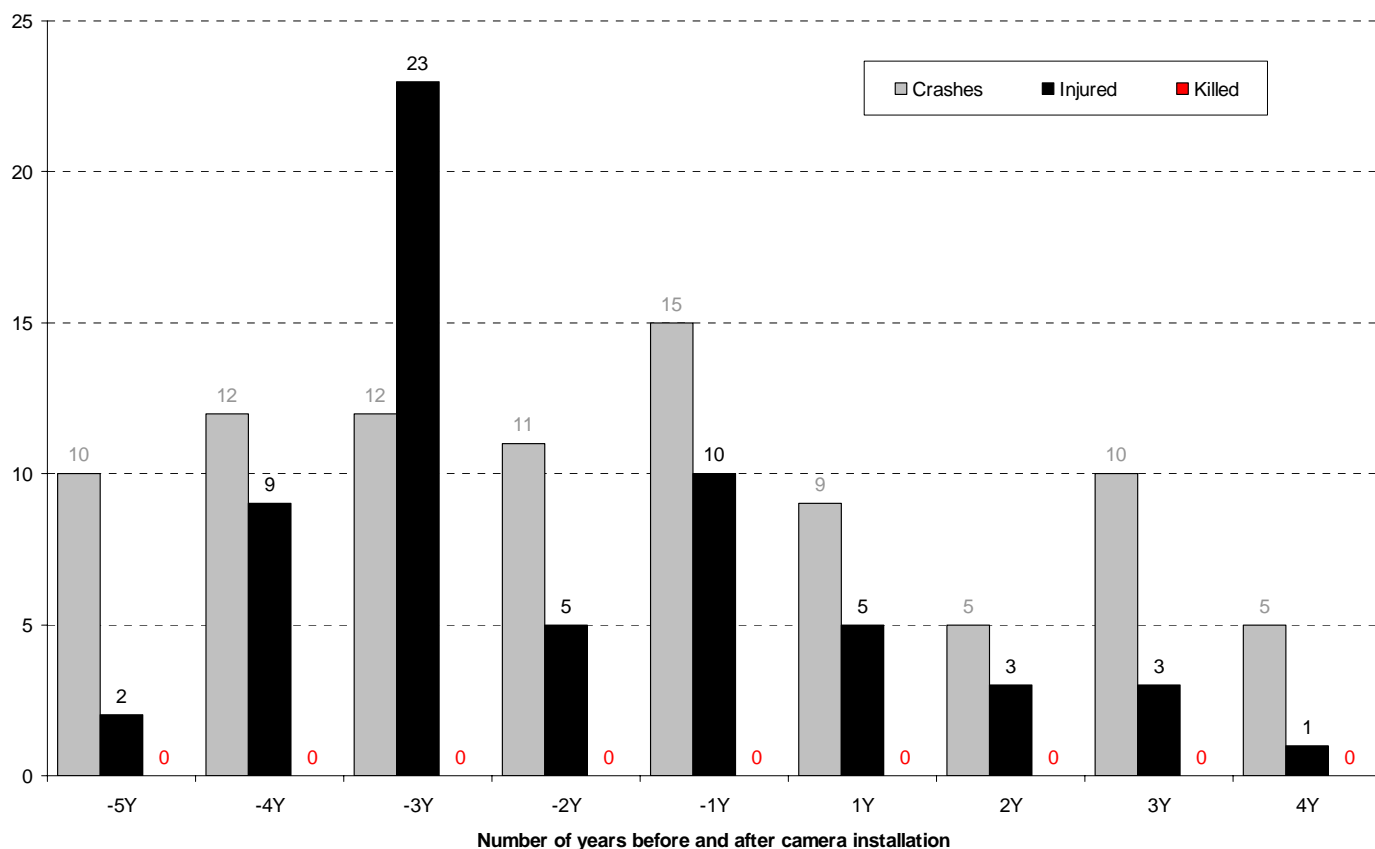
## Fixed digital speed camera – Cabramatta Road, Bonnyrigg (school zone)

Location: Cabramatta Road, between Katinka Street and Tarlington Parade, Bonnyrigg.  
 School zone: Bonnyrigg High School and Our Lady of Mt Carmel Primary School.

<b>Length description</b>	470m east of camera to 530m west of camera
<b>Total length (m)</b>	1000 (Patch 470m east of camera)
<b>Started Infringing</b>	17/10/2007

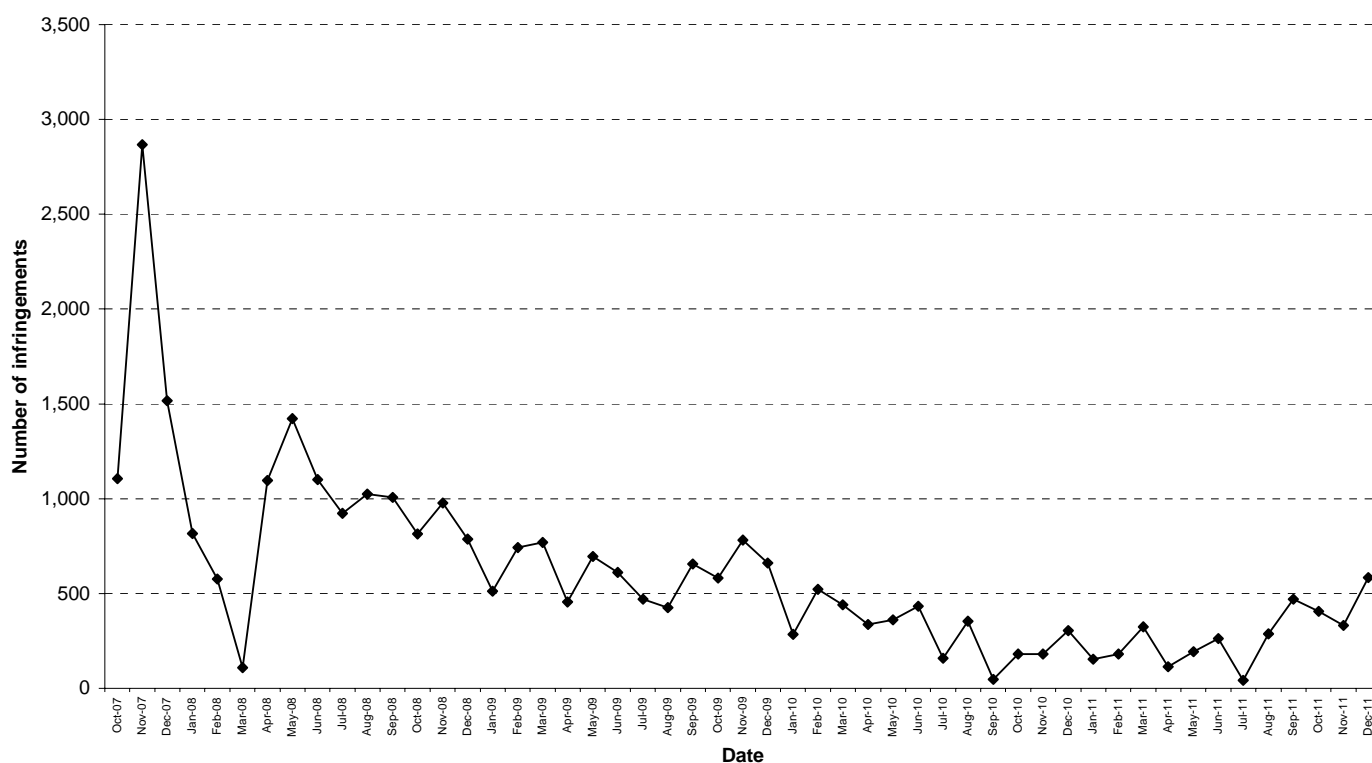
### Crashes at fixed speed camera location

Five years before – Aug 2002 to Aug 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	49	49	60	5.586
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	12	12	29	1.368



## Infringements at fixed speed camera location

CABRAMATTA ROAD BONNYRIGG



### Summary

The school zone fixed speed camera at Cabramatta Road, Bonnyrigg was installed in October 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 60 crashes resulting in zero fatalities and 49 injuries. In the four year period 2007 – 2011 there were 29 crashes resulting in zero fatalities and 12 injuries. When compared to the pre installation period, this is a 40 per cent reduction in the annual average number of crashes and a 69 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$3.1 million in costs to the community.

Provisional crash data show there were eight crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

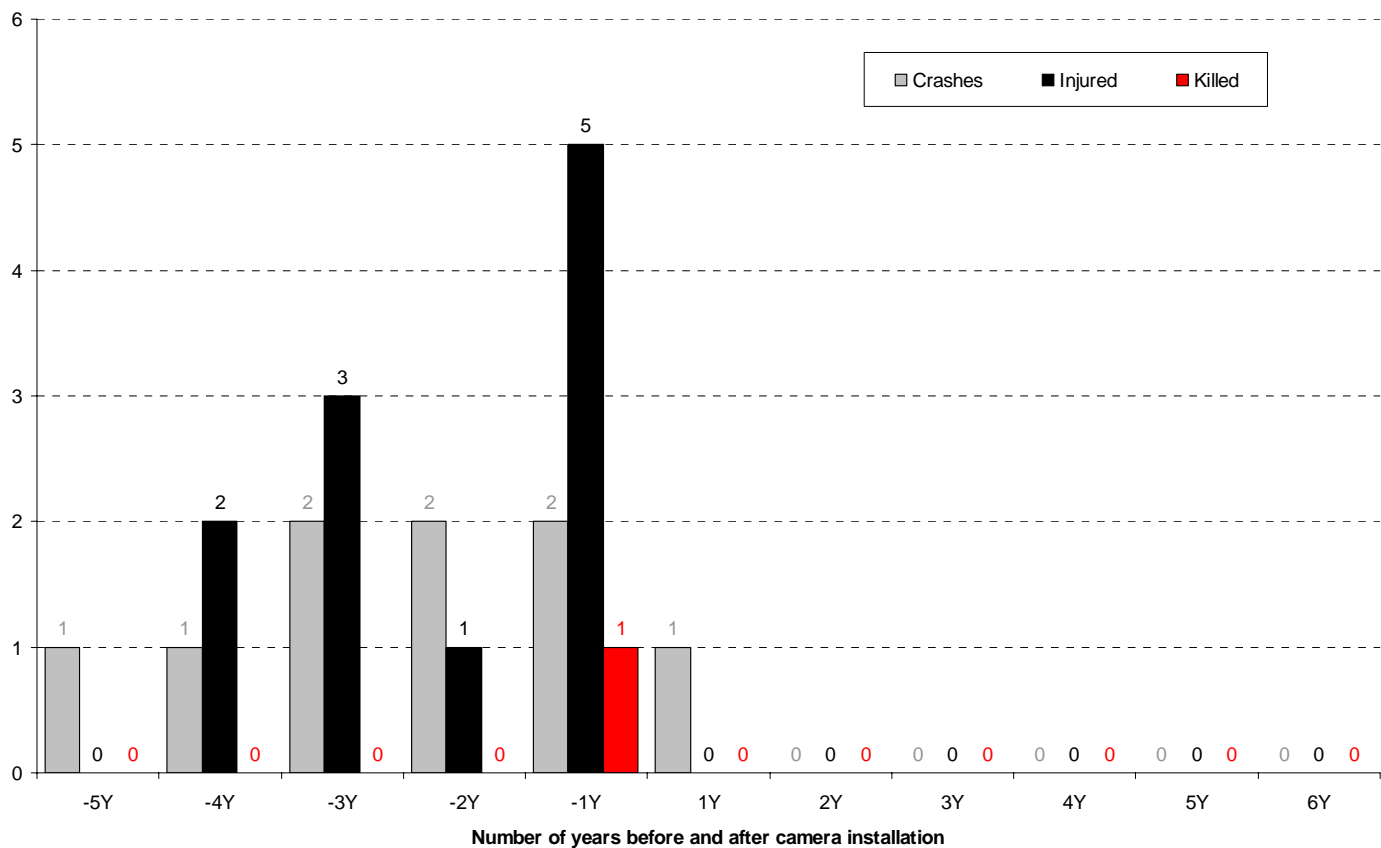
### Fixed digital speed camera – Pine Creek Way, Bonville

Location: Pine Creek Way, between Bonville Creek and Bonville Station Road, Bonville.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	16/12/2005

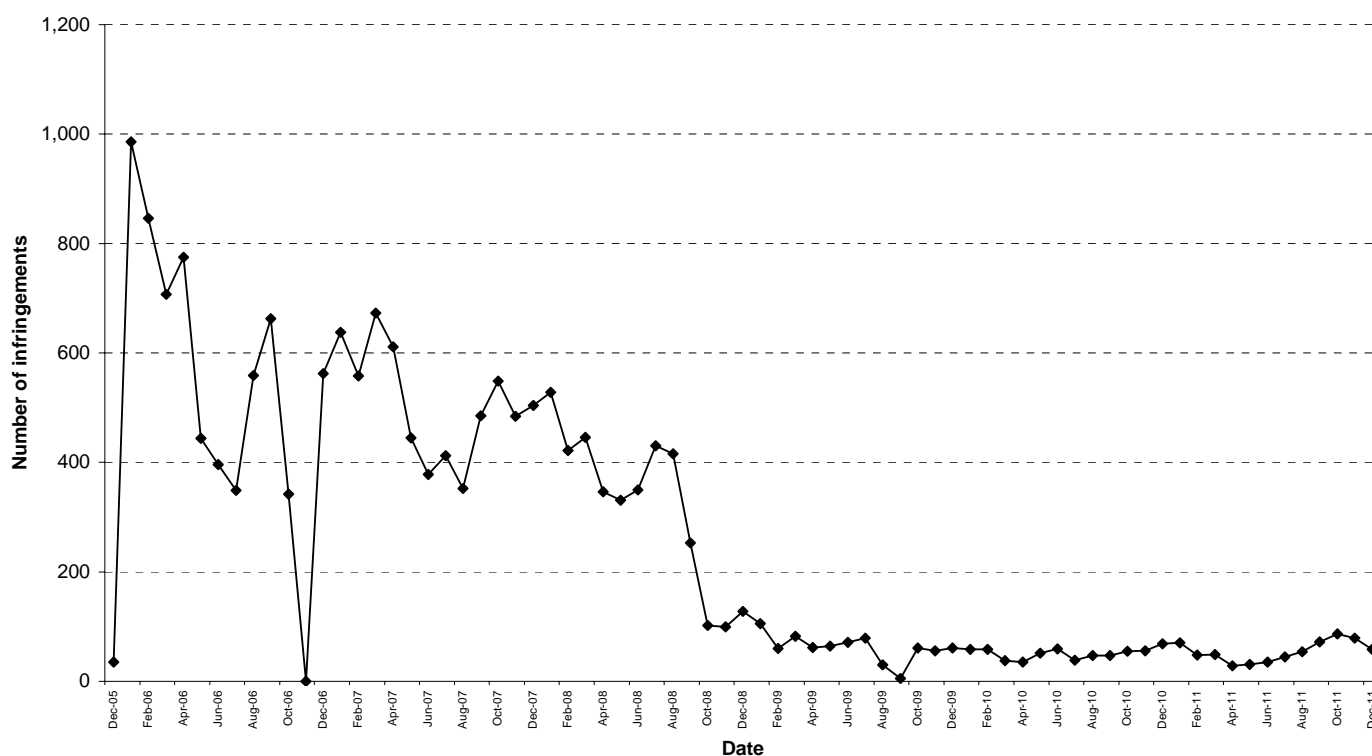
### Crashes at fixed speed camera location

Five years before – Sep 2000 to Sep 2005 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	11	12	8	7.088
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	0	0	0	0



## Infringements at fixed speed camera location

PINE CREEK WAY BONVILLE



### Summary

The fixed speed camera on Pine Creek Way, Bonville was installed in December 2005. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were eight crashes resulting in one fatality and 11 injuries. In the five year period 2006 – 2011 there were zero crashes resulting in zero casualties. When compared to the pre installation period, this is a 100 per cent reduction in the annual average number of crashes and a 100 per cent reduction in the annual average number of casualties. This has been a saving of \$7.1 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

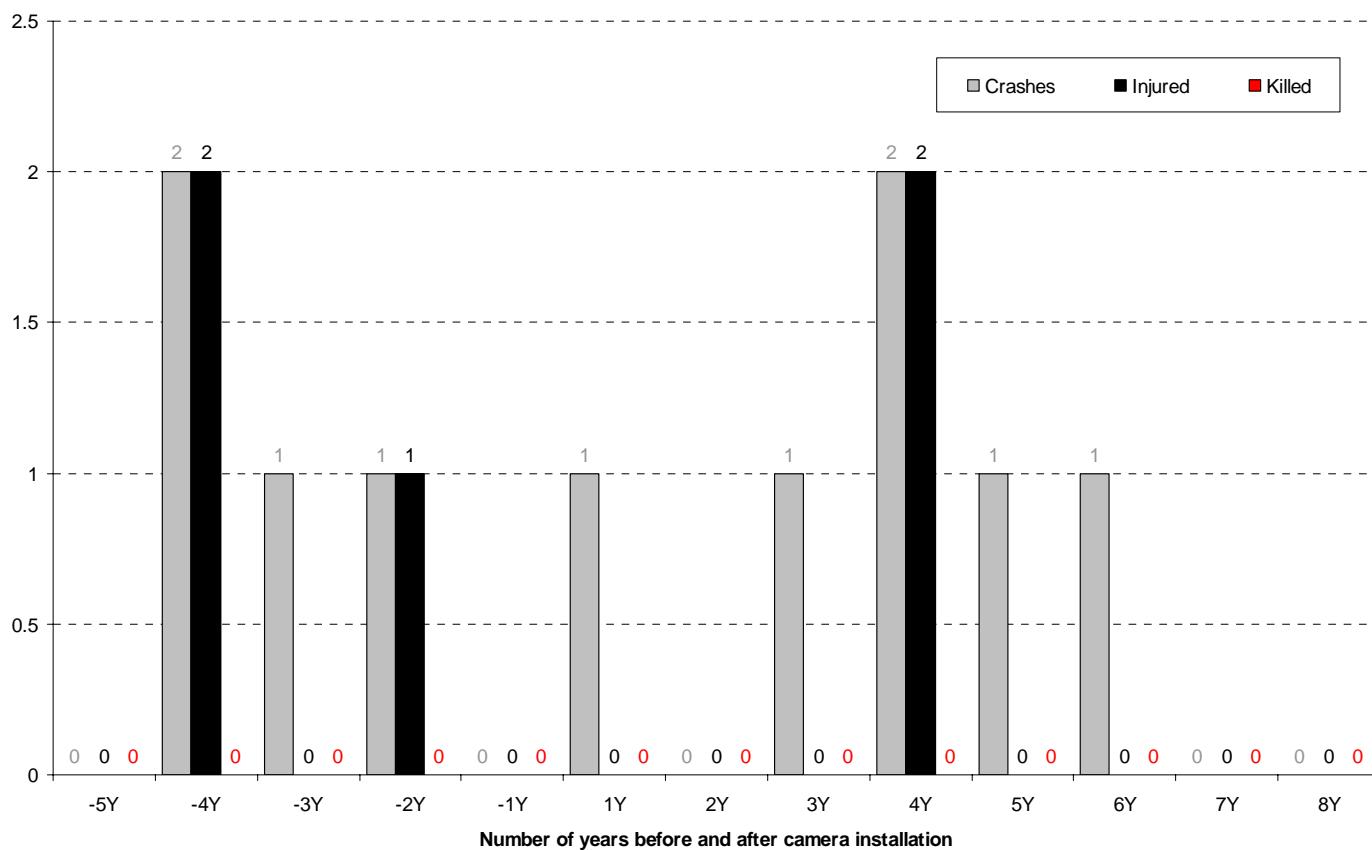
## Fixed digital speed camera – Princes Highway, Brogo

Location: Princes Highway, between Pioneer Close and Brogo River, Brogo.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	02/05/2003

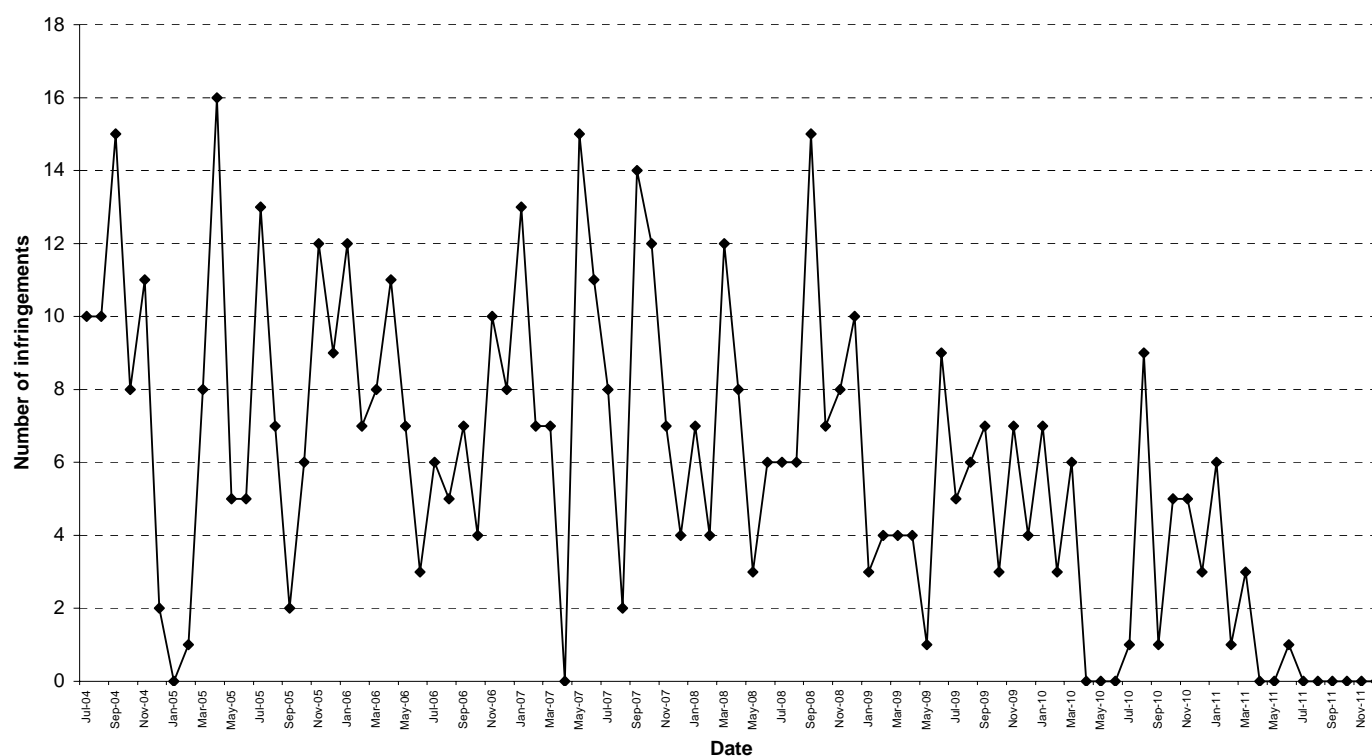
### Crashes at fixed speed camera location

Five years before – Feb 1998 to Feb 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	3	3	4	0.342
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	2	2	4	0.228



## Infringements at fixed speed camera location

### PRINCES HIGHWAY BROGO



### Summary

The fixed speed camera on the Princes Highway, Brogo was installed in May 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that although the number of crashes remain constant, there has been a reduction in casualties at this location. In the five years prior to the installation of the fixed speed camera at this location, there were four crashes resulting in zero fatalities and three injuries. In the five year period 2006 – 2011 there were four crashes resulting in zero fatalities and two injuries. When compared to the pre installation period, there is no reduction in the annual average number of crashes, however there is a 33 per cent reduction in the annual average number of casualties. This has been a saving of \$114,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.



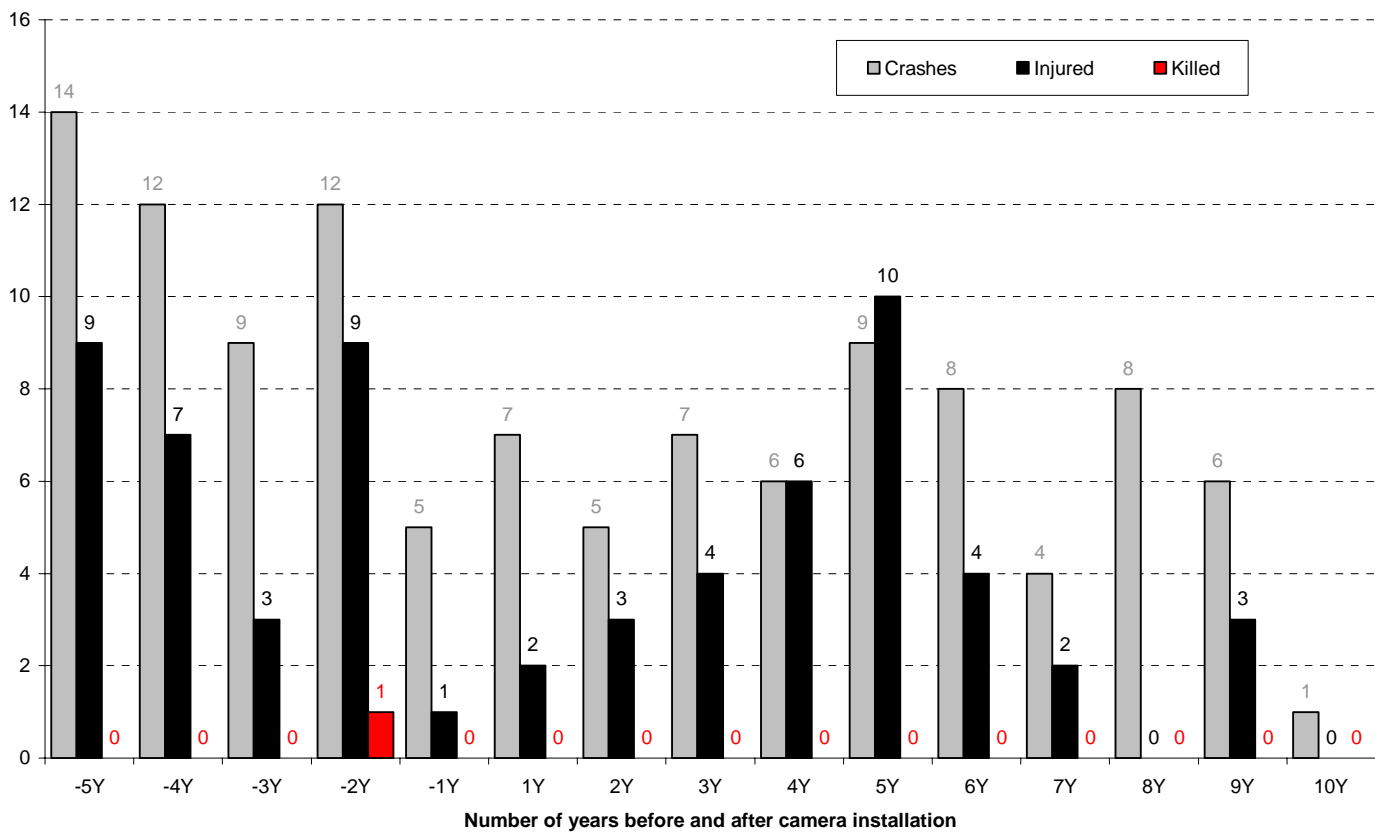
### Fixed digital speed camera – Princes Highway, Bulli.

Location: Princes Highway, between Grevillea Park Road and Black Diamond Place, Bulli.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	04/12/2001

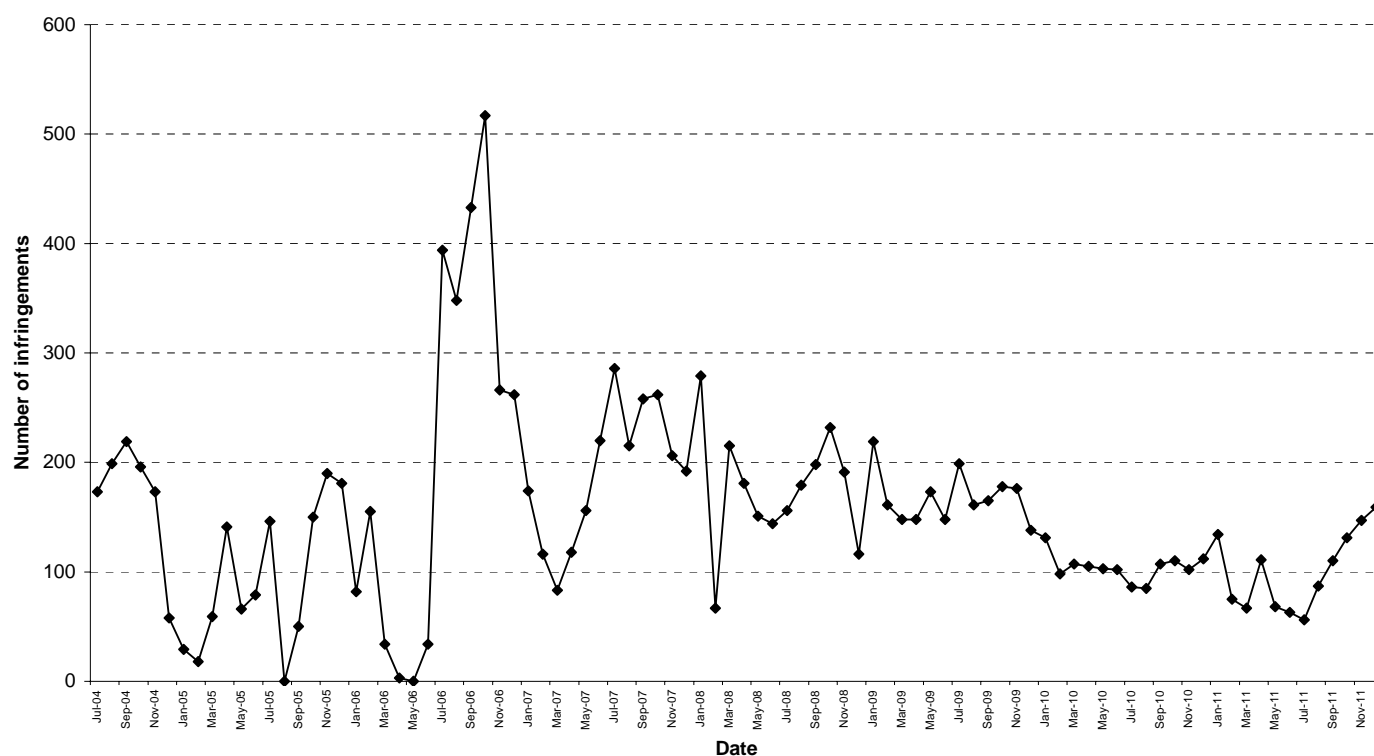
### Crashes at fixed speed camera location

Five years before – Sep 1996 to Sep 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	29	30	52	9.14
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	9	9	27	1.026



## Infringements at fixed speed camera location

### PRINCES HIGHWAY BULLI



### Summary

The fixed speed camera on the Princes Highway, Bulli was installed in December 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 52 crashes resulting in one fatality and 29 injuries. In the five year period 2006 – 2011 there were 27 crashes resulting in zero fatalities and nine injuries. When compared to the pre installation period, this is a 48 per cent reduction in the annual average number of crashes and a 70 per cent reduction in the annual average number of casualties. This has been a saving of \$8.1 million in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. The spike in infringements in the period July to October 2006 may be attributed to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

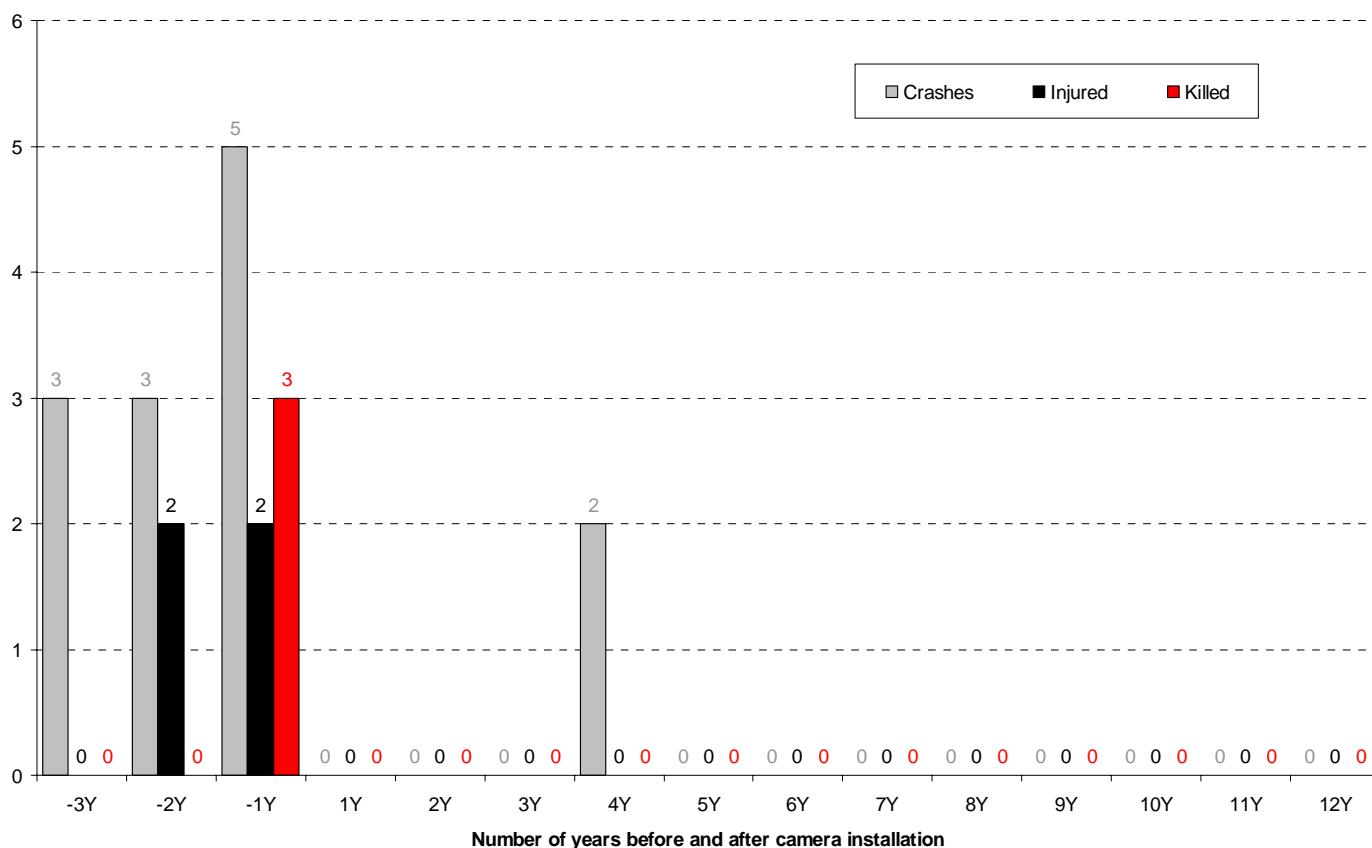
## Fixed digital speed camera – Tweed Valley Way, Burringbar

Location: Tweed Valley Way, between Blakeney Road and Cooradilla Road, Burringbar.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	02/04/1999

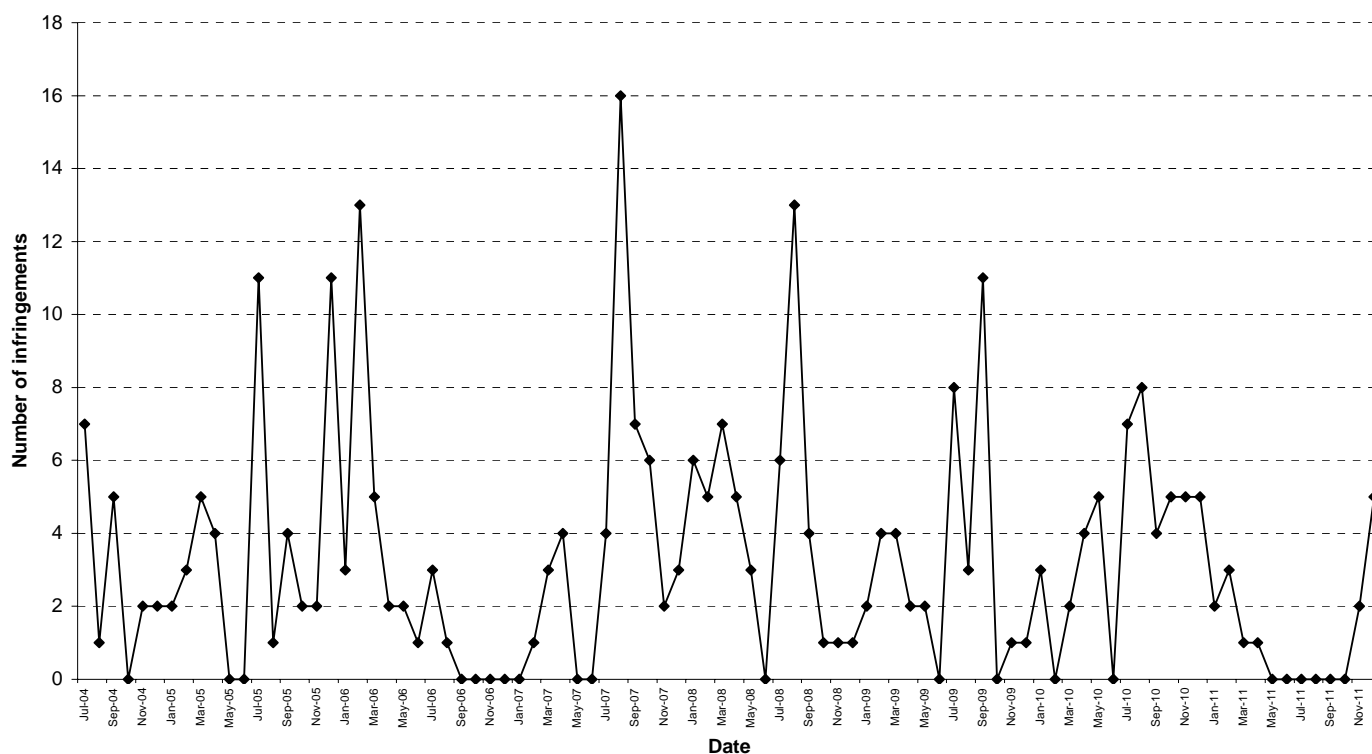
### Crashes at fixed speed camera location

Three years before – Jan 1996 to Jan 1999 (no data available for 1994 and 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
3	4	7	11	17.958
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	0	0	0	0



## Infringements at fixed speed camera location

### TWEED VALLEY WAY BRRRINGBAR



## Summary

The fixed speed camera on Tweed Valley Way, Burringbar was installed in April 1999. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the three years prior to the installation of the fixed speed camera at this location, there were 11 crashes resulting in three fatalities and four injuries. In the five year period 2006 – 2011 there were zero crashes. When compared to the pre installation period, this is a 100 per cent reduction in the annual average number of crashes and a 100 per cent reduction in the annual average number of casualties. This has been a saving of \$29.9 million in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

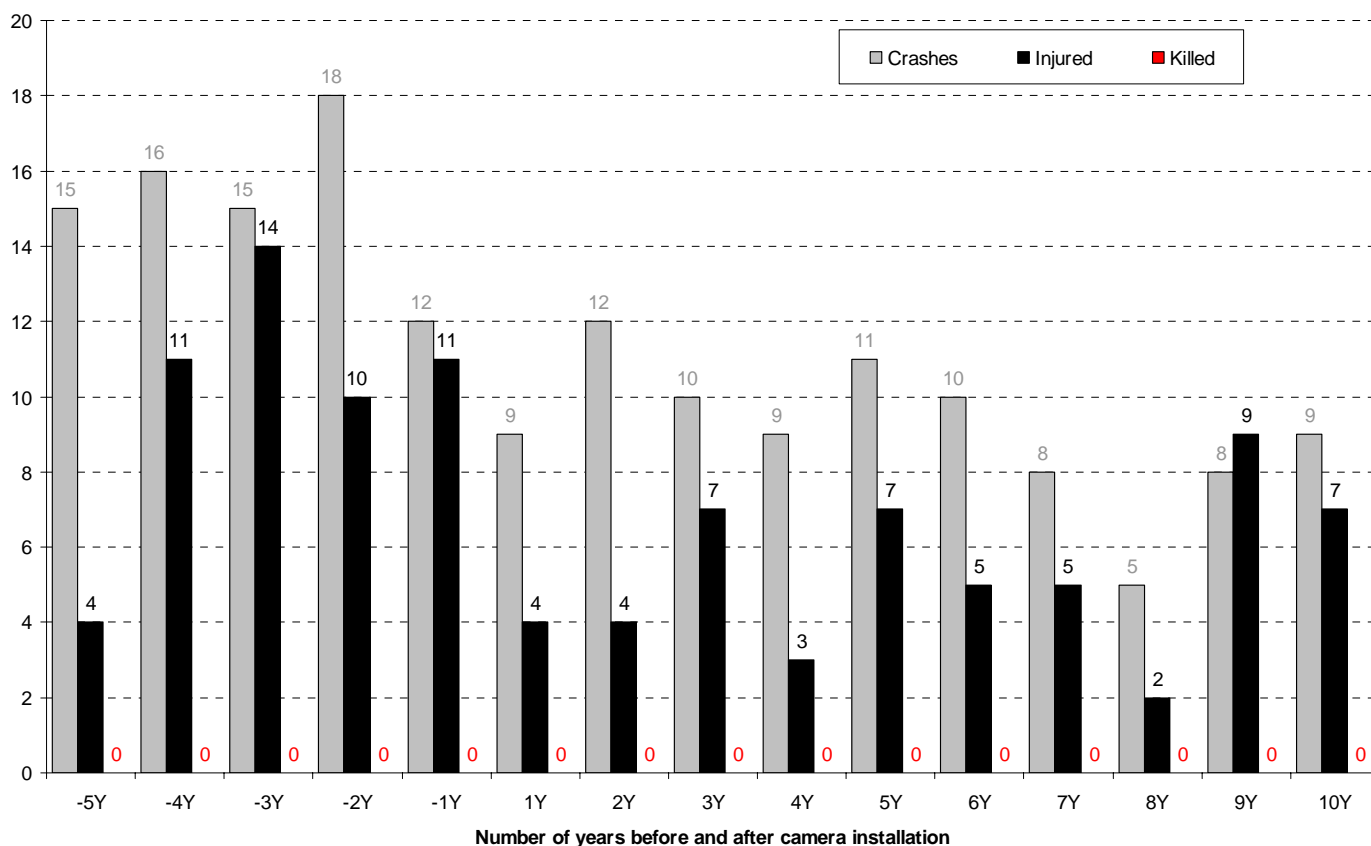
## Fixed digital speed camera – Hume Highway, Burwood Heights

Location: Hume Highway, between Kelso Street and Appian Way, Burwood Heights.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	05/12/2001

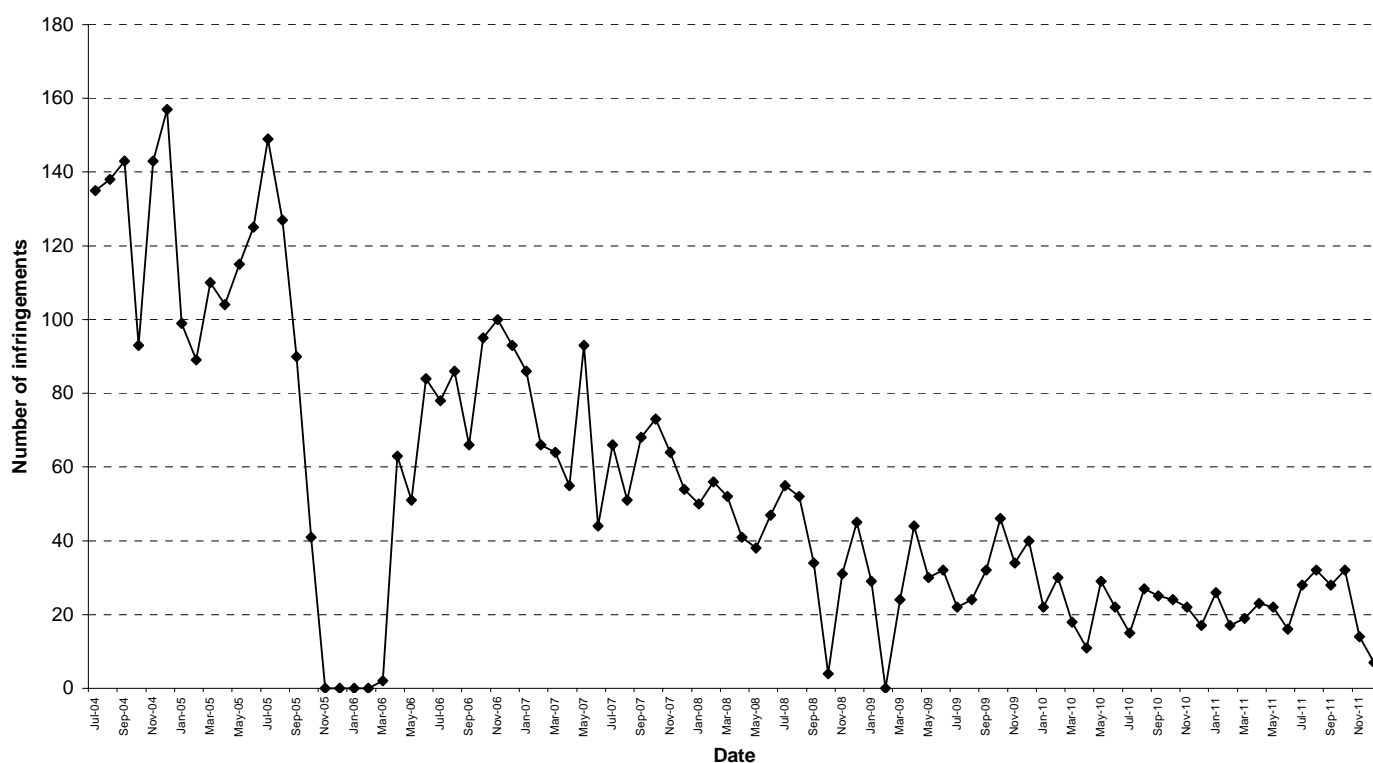
### Crashes at fixed speed camera location

Five years before – Sep 1996 to Sep 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	50	50	76	5.7
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	28	28	40	3.192



## Infringements at fixed speed camera location

HUME HIGHWAY BURWOOD HEIGHTS



### Summary

The fixed speed camera on the Hume Highway, Burwood Heights was installed in December 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 76 crashes resulting in zero fatalities and 50 injuries. In the five year period 2006 – 2011 there were 40 crashes resulting in zero fatalities and 28 injuries. When compared to the pre installation period, this is a 47 per cent reduction in the annual average number of crashes and a 44 per cent reduction in the annual average number of casualties. This has been a saving of \$2.5 million in costs to the community.

Provisional crash data show there were 10 crashes resulting in zero fatalities and five injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

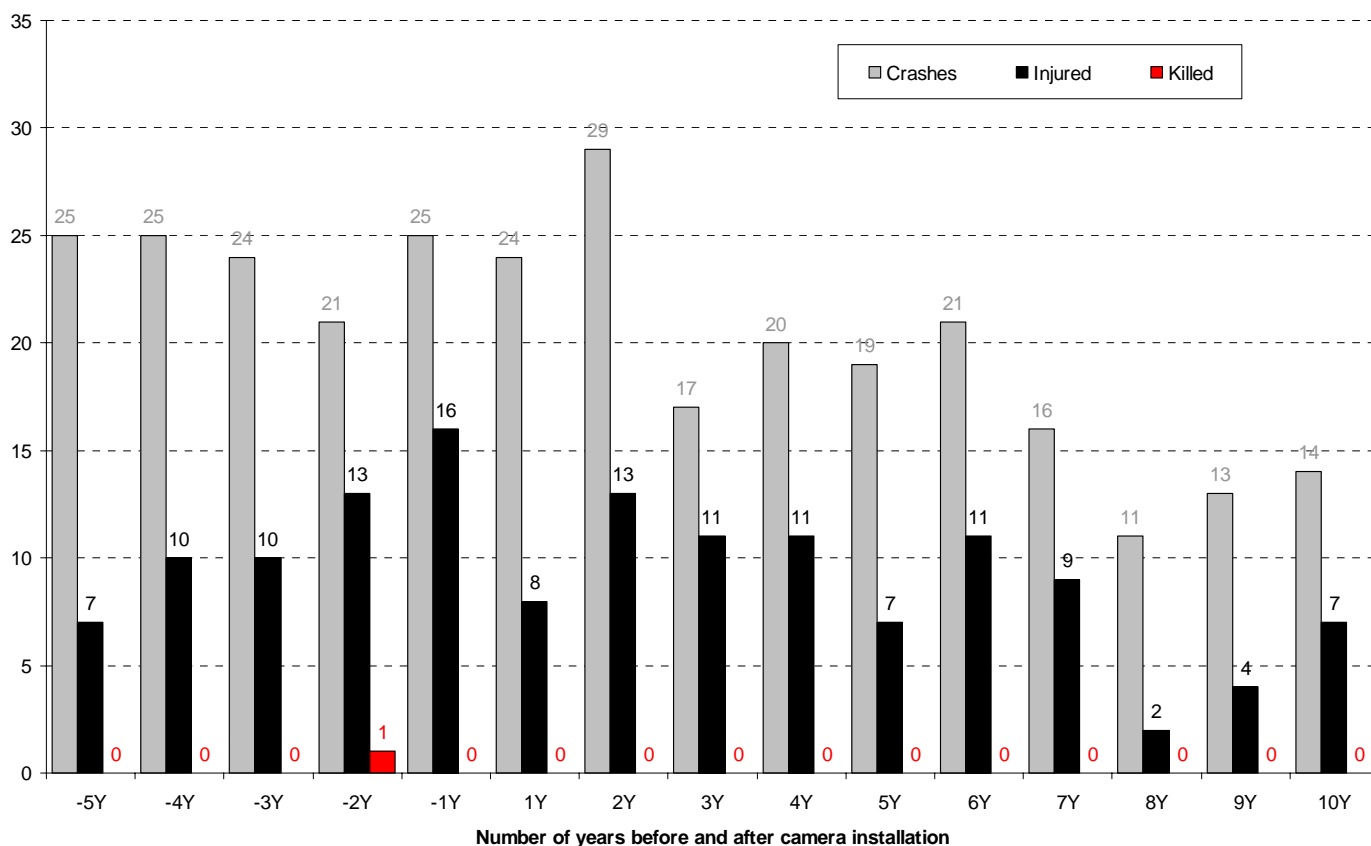
## Fixed digital speed camera – James Ruse Drive, Camellia

Location: James Ruse Drive, between Victoria Road and Grand Avenue North, Camellia.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	06/12/2001

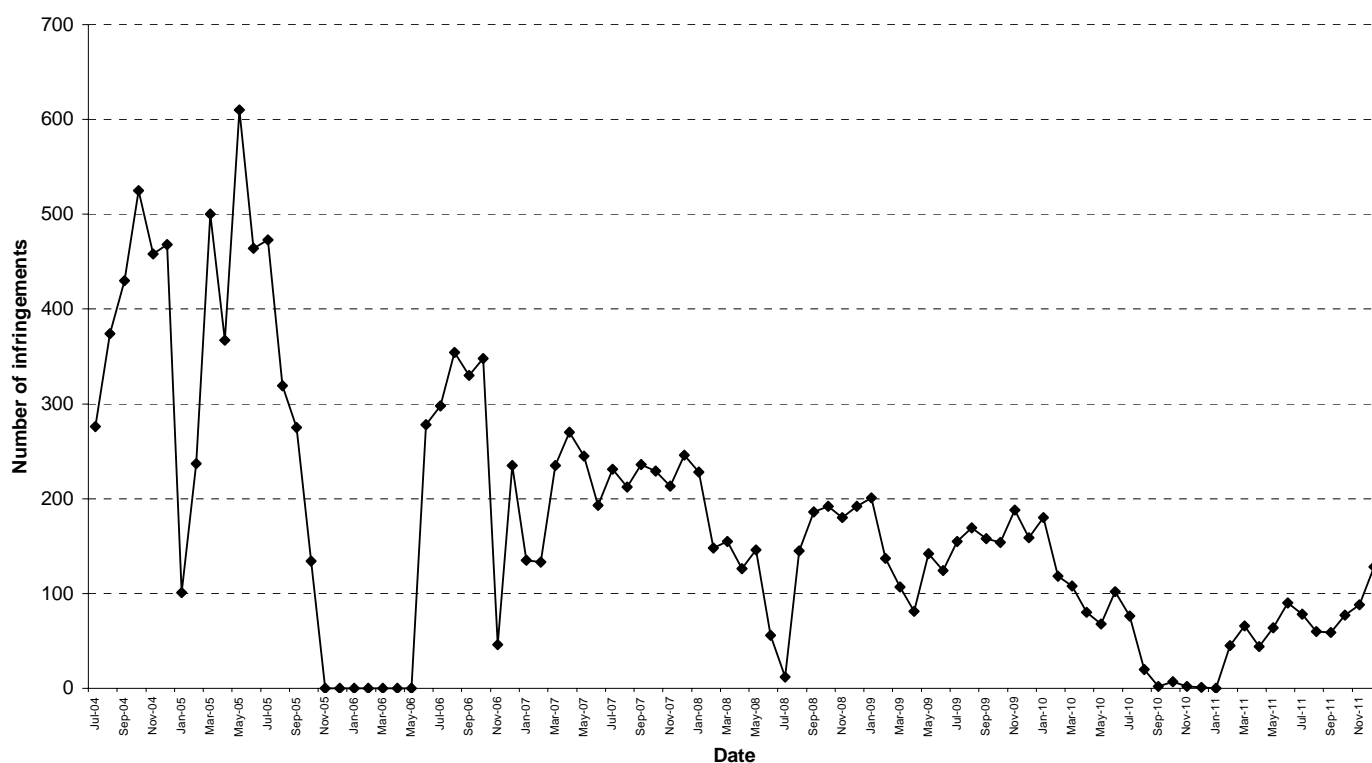
### Crashes at fixed speed camera location

Five years before – Sep 1996 to Sep 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	56	57	120	12.218
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	33	33	75	3.762



## Infringements at fixed speed camera location

JAMES RUSE DRIVE CAMELLIA



### Summary

The fixed speed camera at James Ruse Drive, Camellia was installed in December 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 120 crashes resulting in one fatality and 56 injuries. In the five year period 2006 – 2011 there were 75 crashes resulting in zero fatalities and 33 injuries. When compared to the pre installation period, this is a 38 per cent reduction in the annual average number of crashes and a 42 per cent reduction in the annual average number of casualties. This has been a saving of \$8.5 million in costs to the community.

Provisional crash data show there were 15 crashes resulting in zero fatalities and seven injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.



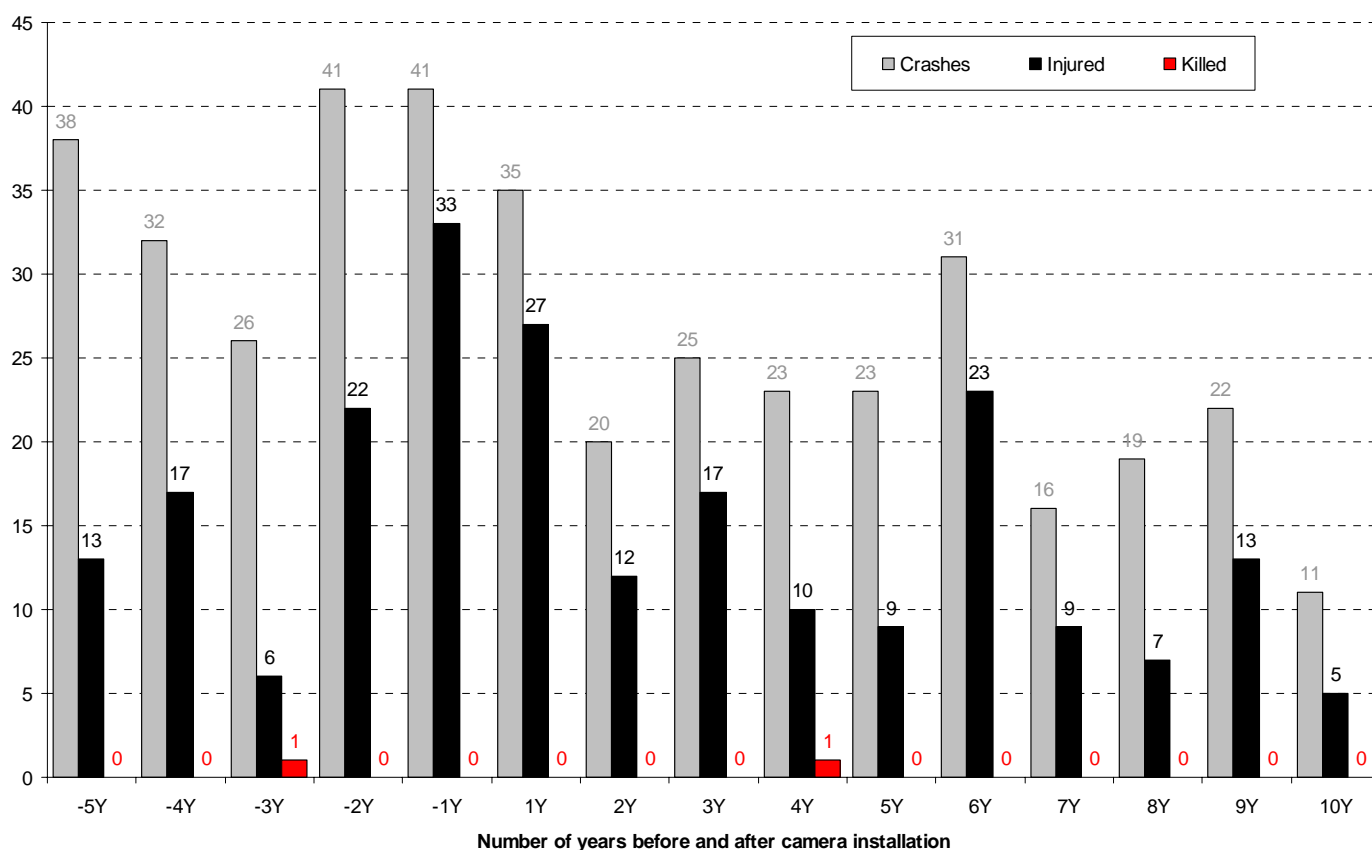
## Fixed digital speed camera – Canterbury Road, Canterbury

Location: Canterbury Road, between Gould Street and Jeffrey Street, Canterbury.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	19/04/2001

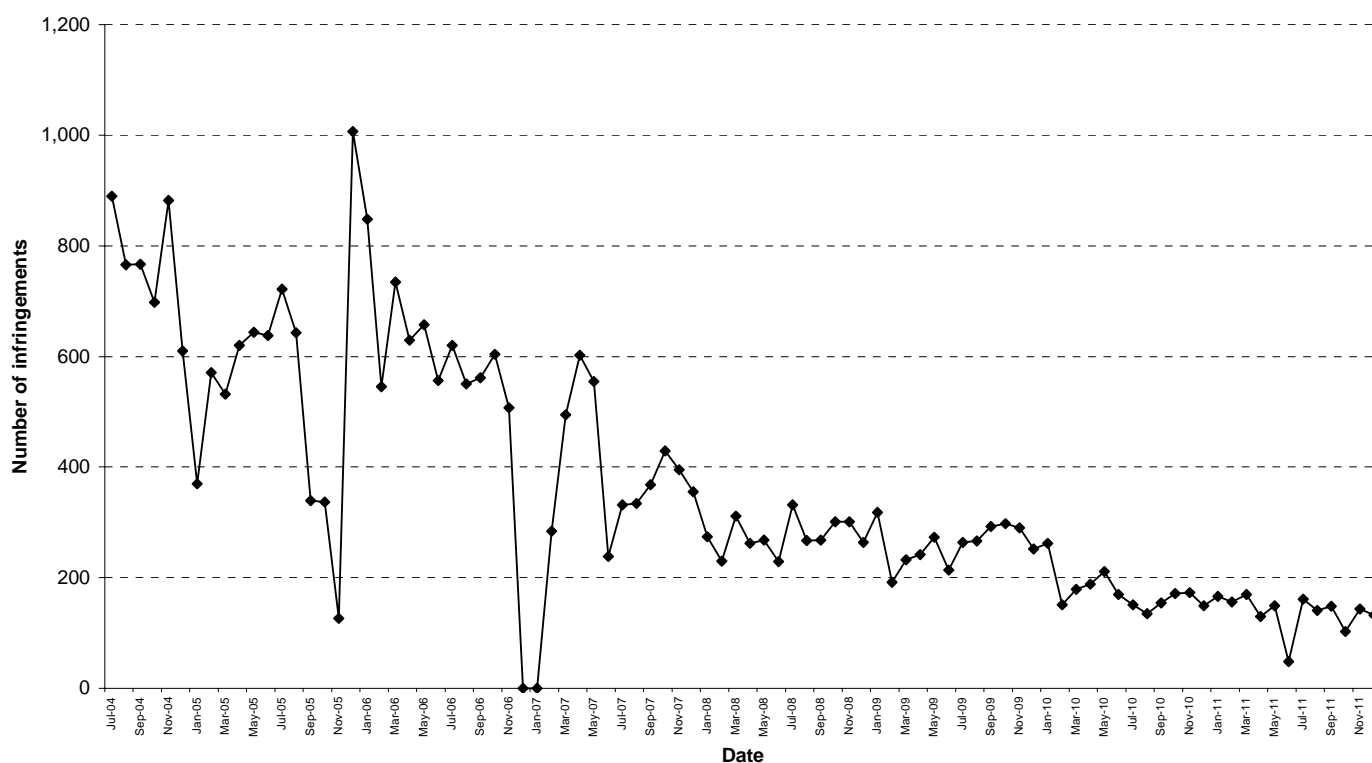
### Crashes at fixed speed camera location

Five years before – Jan 1996 to Jan 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	91	92	178	16.208
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	57	57	99	6.498



## Infringements at fixed speed camera location

CANTERBURY ROAD CANTERBURY



### Summary

The fixed speed camera at Canterbury Road, Canterbury was installed in April 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 178 crashes resulting in one fatality and 91 injuries. In the five year period 2006 – 2011 there were 99 crashes resulting in zero fatalities and 57 injuries. When compared to the pre installation period, this is a 44 per cent reduction in the annual average number of crashes and a 38 per cent reduction in the annual average number of casualties. This has been a saving of \$9.7 million in costs to the community.

Provisional crash data show there were 11 crashes resulting in zero fatalities and seven injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

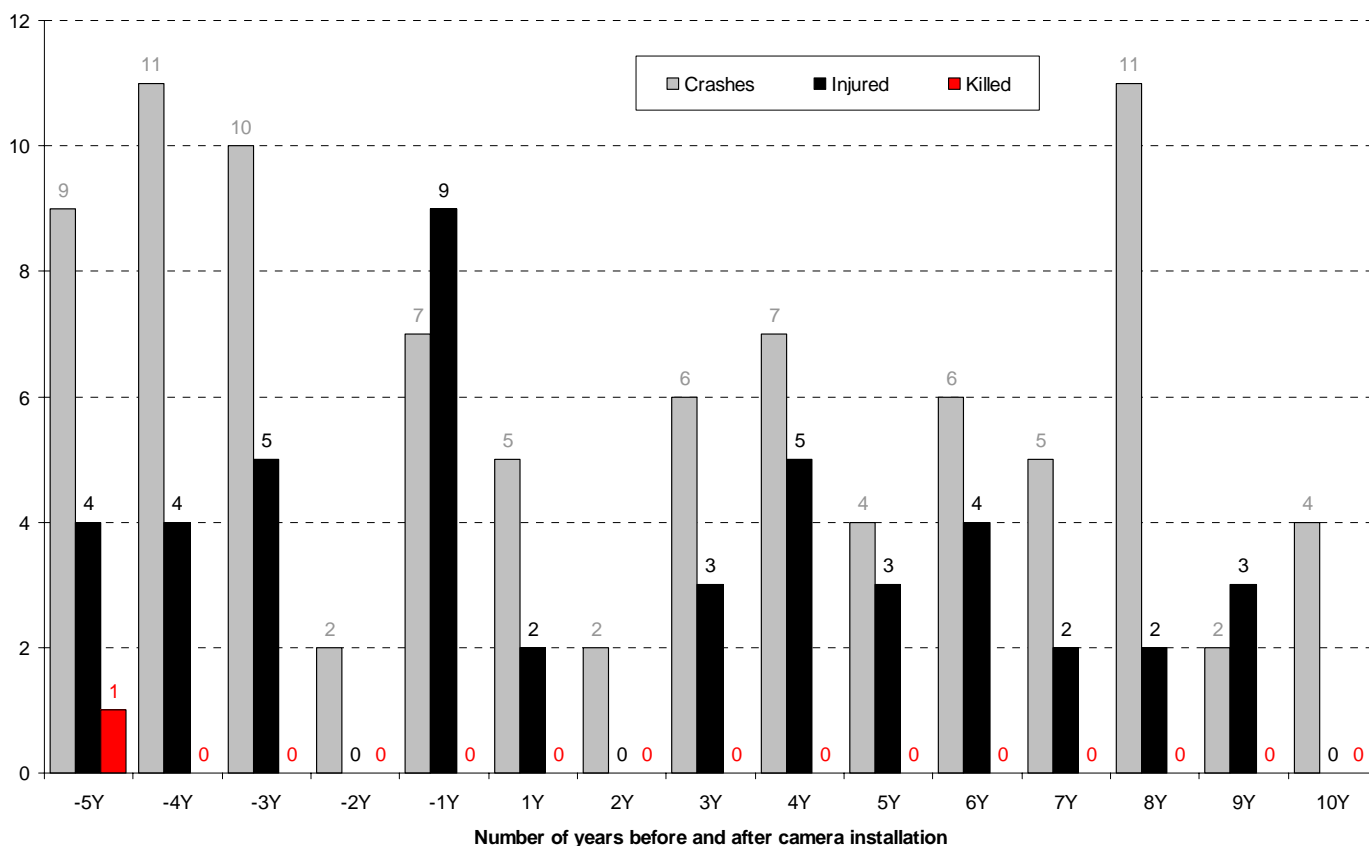
## Fixed digital speed camera – Captain Cook Drive, Caringbah

Location: Captain Cook Drive, between Cawarra Road and Gannons Road, Caringbah.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	12/04/2001

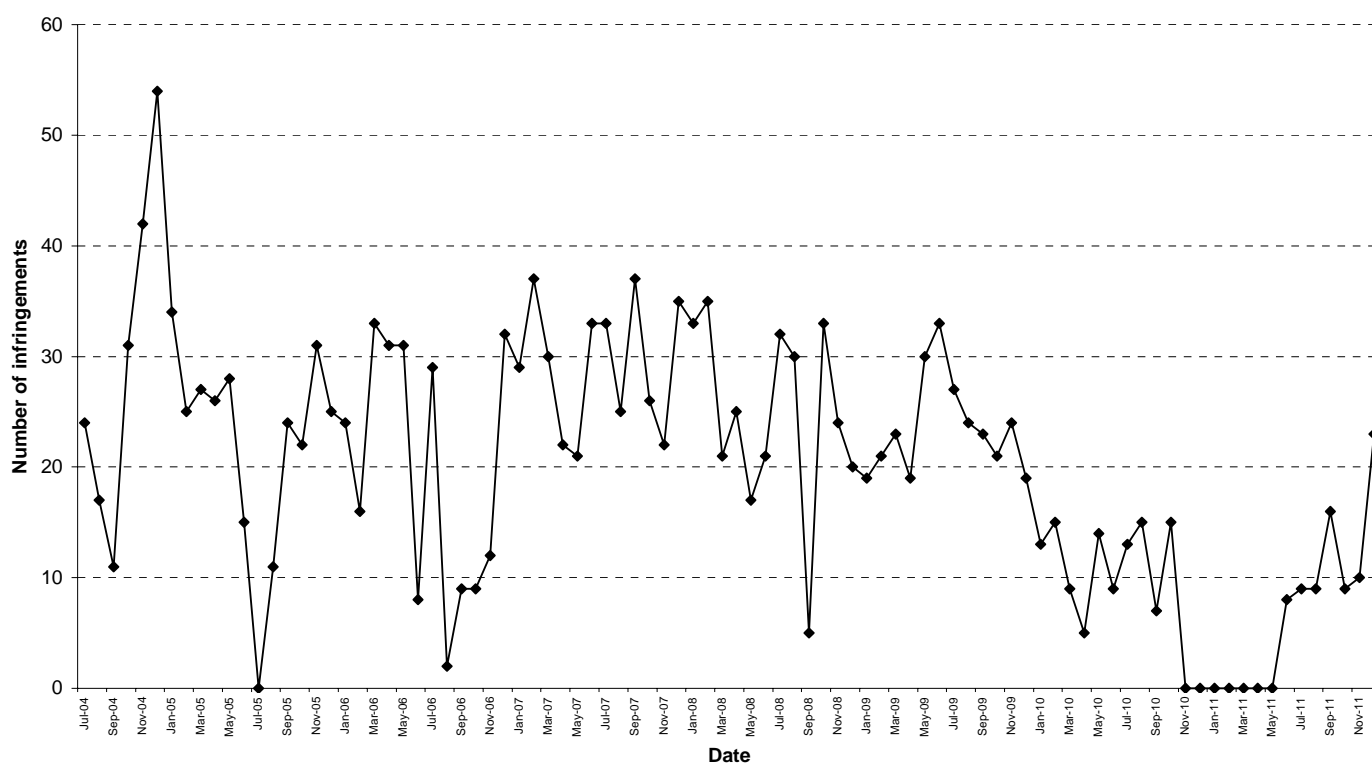
### Crashes at fixed speed camera location

Five years before – Jan 1996 to Jan 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	22	23	39	8.342
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	11	11	28	1.254



## Infringements at fixed speed camera location

CAPTAIN COOK DRIVE CARINGBAH



### Summary

The fixed speed camera at Captain Cook Drive, Caringbah was installed in April 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 39 crashes resulting in one fatality and 23 injuries. In the five year period 2006 – 2011 there were 28 crashes resulting in zero fatalities and 11 injuries. When compared to the pre installation period, this is a 28 per cent reduction in the annual average number of crashes and a 52 per cent reduction in the annual average number of casualties. This has been a saving of \$7.1 million in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. No infringements were recorded at this location from November 2010 to May 2011 as a replacement camera was installed.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

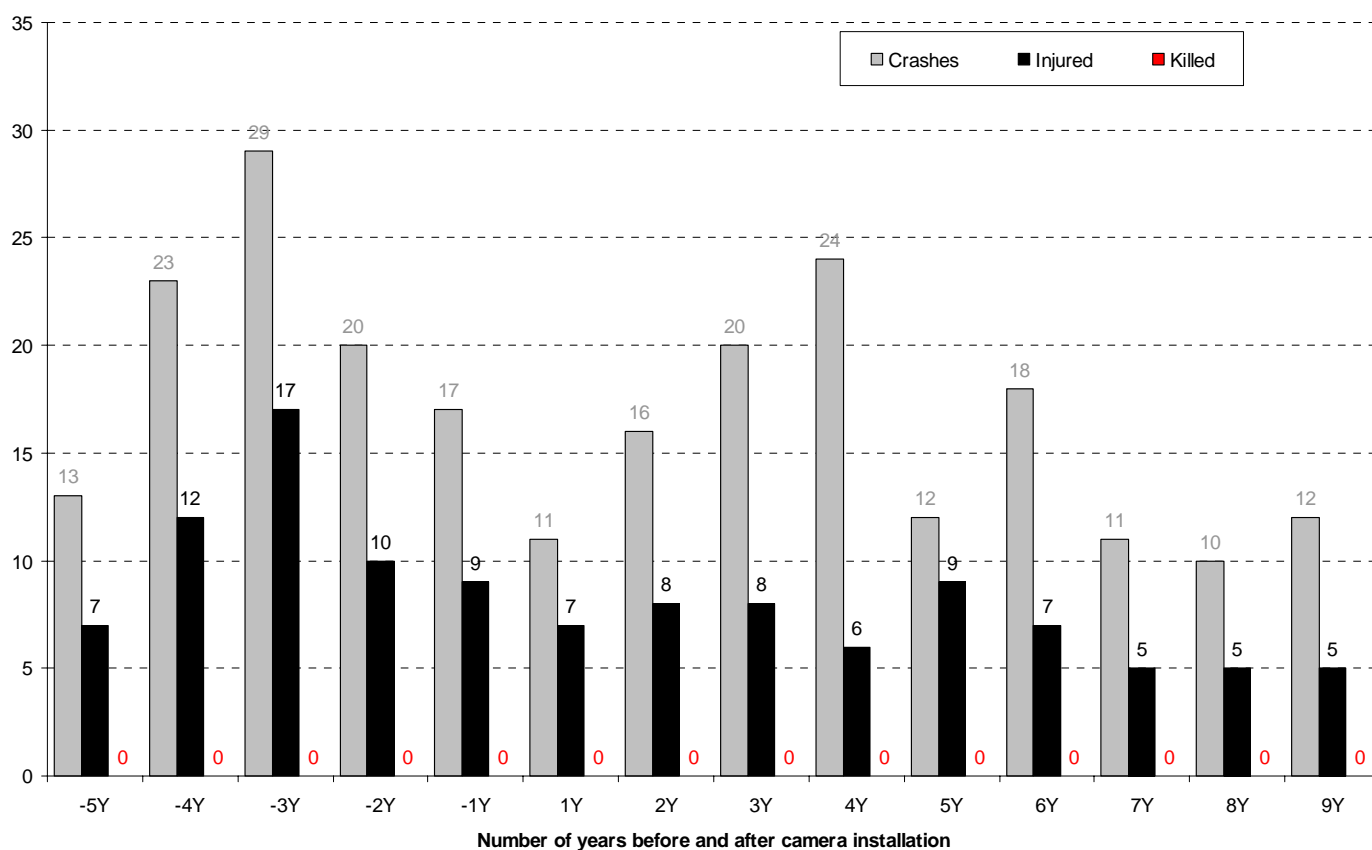
## Fixed digital speed camera – Pennant Hills Road, Carlingford

Location: Pennant Hills Road, between Evans Road and Coleman Avenue, Carlingford.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	16/08/2002

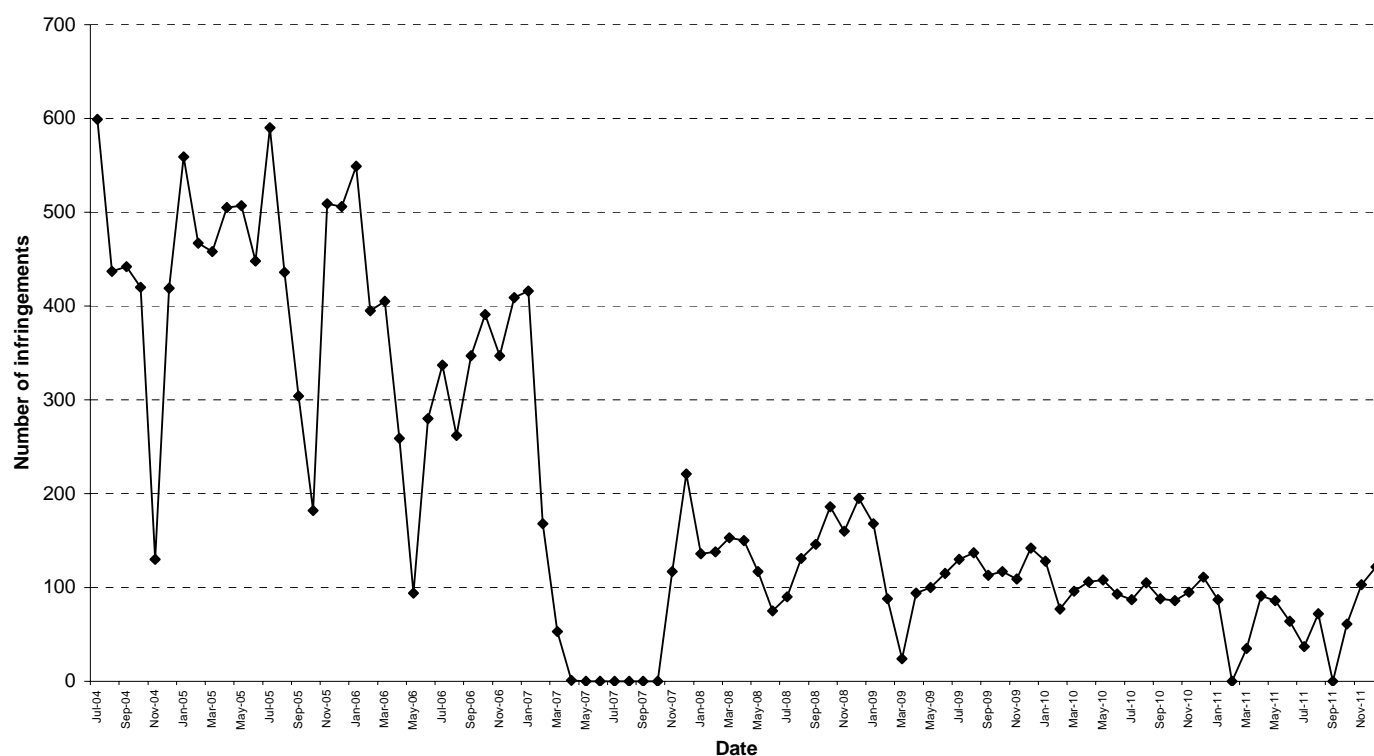
### Crashes at fixed speed camera location

Five years before – May 1997 to May 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	55	55	102	6.27
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	31	31	63	3.534



## Infringements at fixed speed camera location

PENNANT HILLS ROAD CARLINGFORD



### Summary

The fixed speed camera at Pennant Hills Road, Carlingford was installed in August 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 102 crashes resulting in zero fatalities and 55 injuries. In the five year period 2006 – 2011 there were 63 crashes resulting in zero fatalities and 31 injuries. When compared to the pre installation period, this is a 38 per cent reduction in the annual average number of crashes and a 44 per cent reduction in the annual average number of casualties. This has been a saving of \$2.7 million in costs to the community.

Provisional crash data show there were 12 crashes resulting in zero fatalities and eight injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Old Northern Road, Castle Hill (school zone)

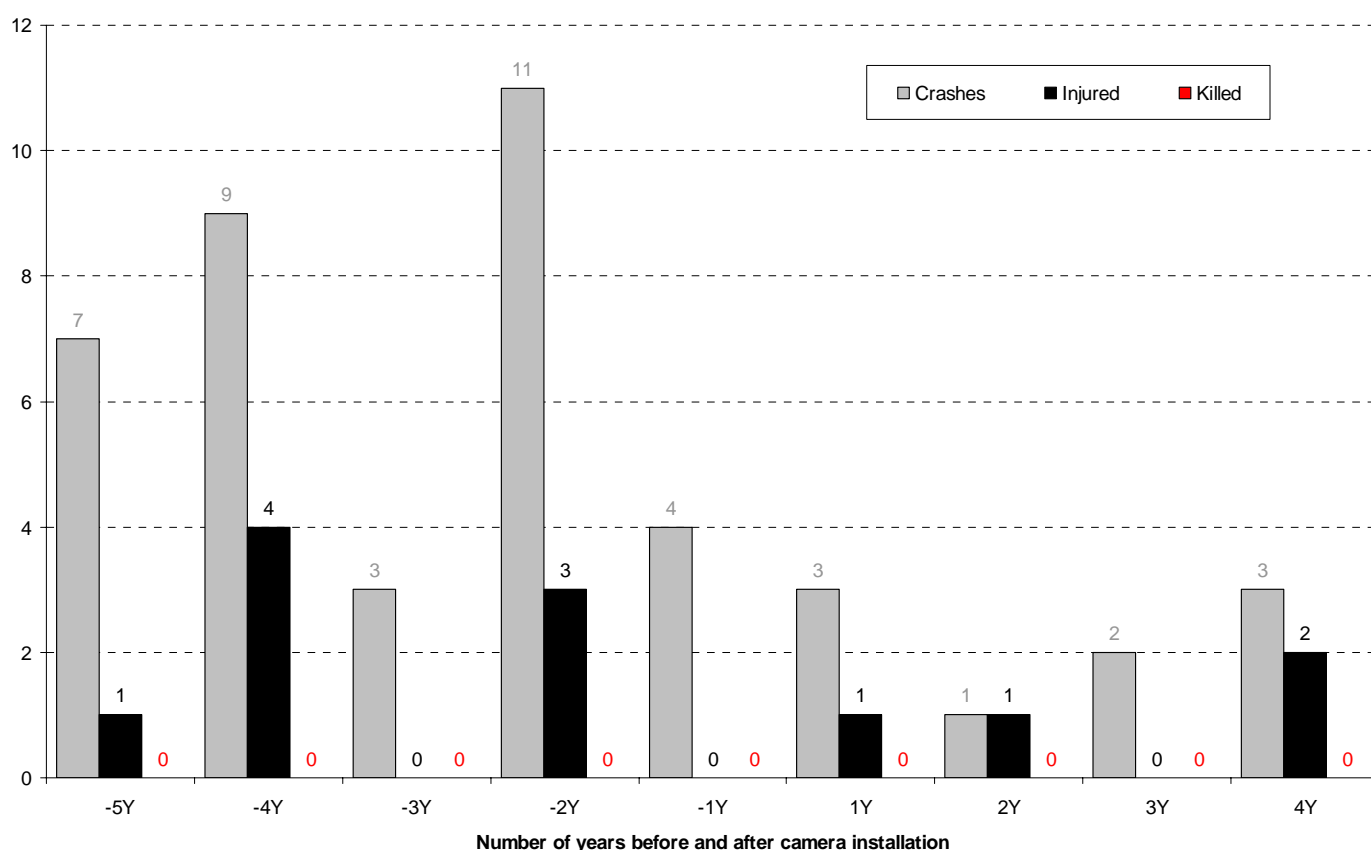
Location: Old Northern Road, between Telfer Road and Brisbane Road, Castle Hill.

School zone: St Bernadette's Primary School

<b>Length description</b>	150m east of camera to 280m west of camera
<b>Total length (m)</b>	430 (Patch to Patch)
<b>Started Infringing</b>	18/05/2007

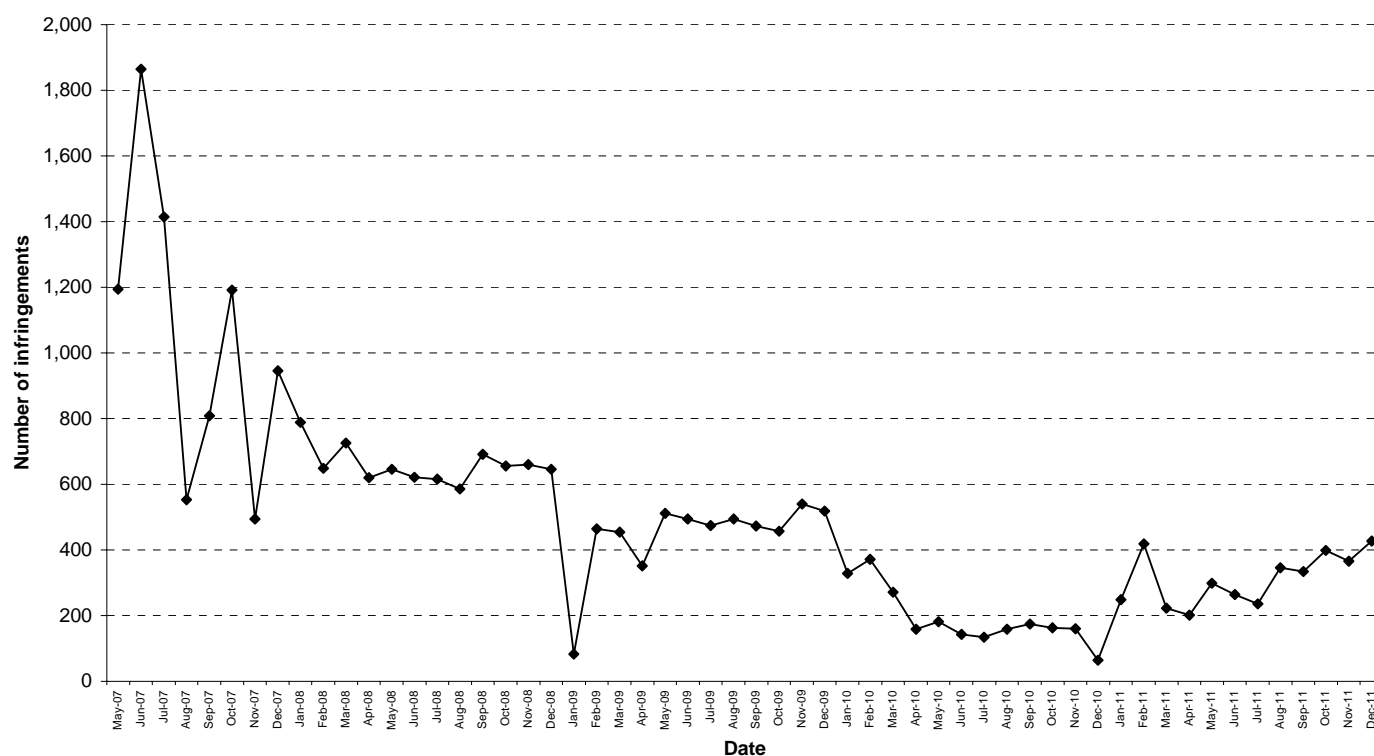
### Crashes at fixed speed camera location

Five years before – Feb 2002 to Feb 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	8	8	34	0.912
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	4	4	9	0.456



## Infringements at fixed speed camera location

OLD NORTHERN ROAD CASTLE HILL



### Summary

The school zone fixed speed camera at Old Northern Road, Castle Hill was installed in May 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 34 crashes resulting in zero fatalities and eight injuries. In the four year period 2007 – 2011 there were nine crashes resulting in zero fatalities and four injuries. When compared to the pre installation period, this is a 67 per cent reduction in the annual average number of crashes and a 38 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$273,600 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.



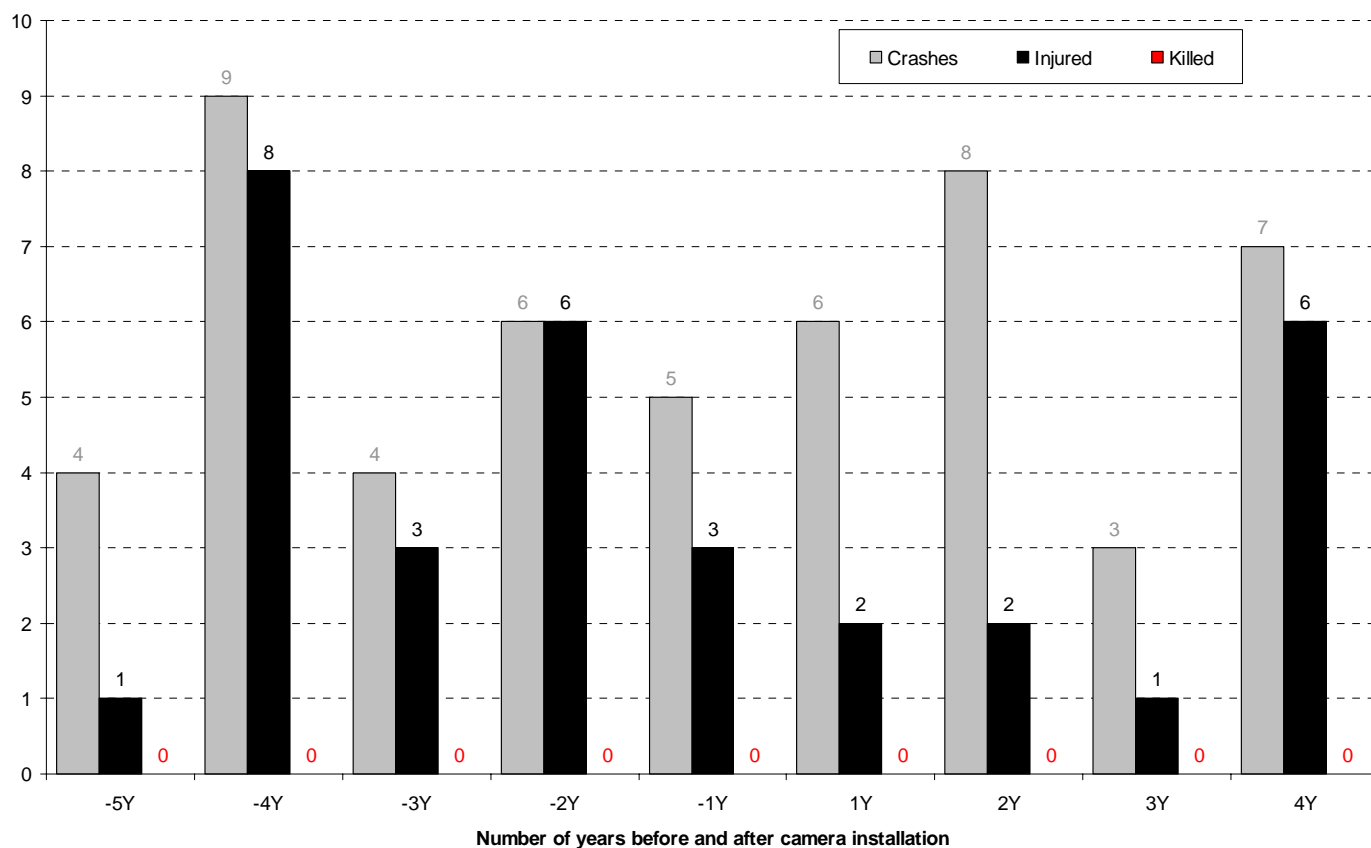
## Fixed digital speed camera – Pacific Highway, Charmhaven

Location: Pacific Highway, between Wallarah Creek and Lowana Avenue, Charmhaven.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	10/04/2007

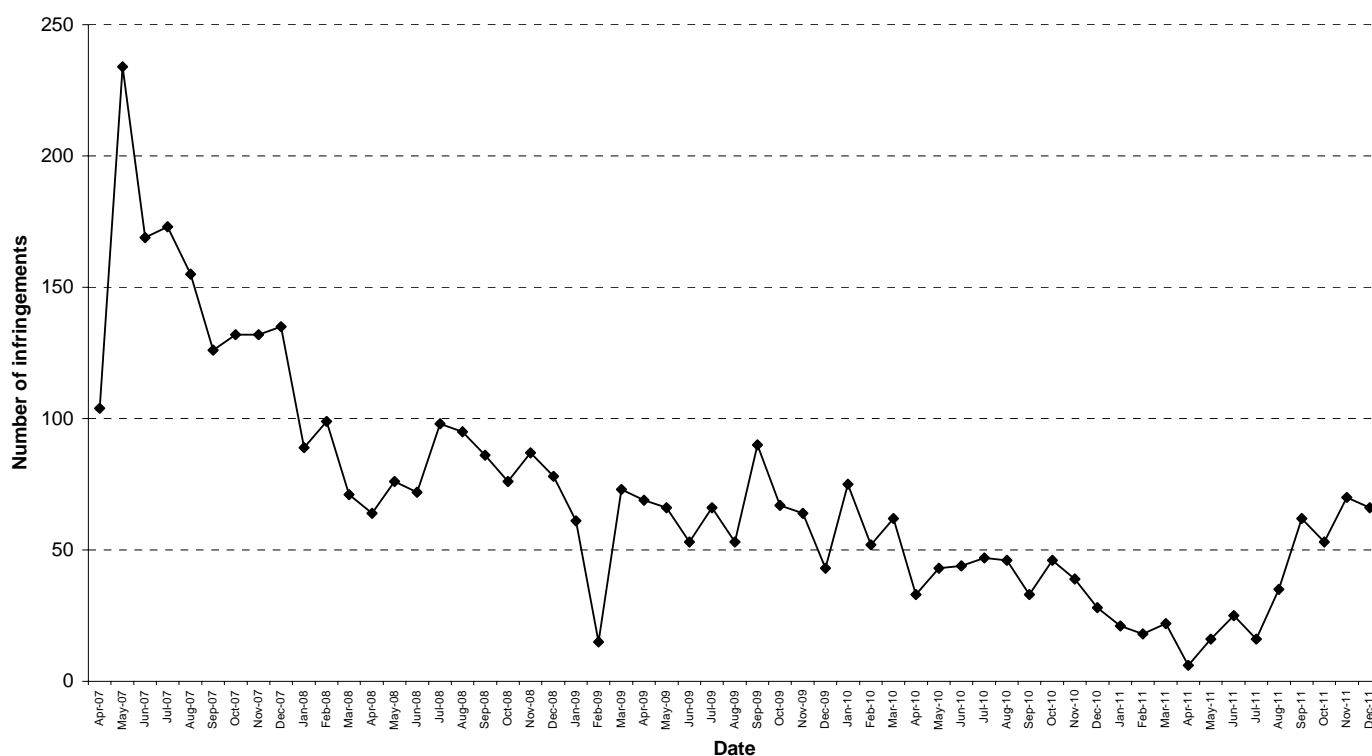
### Crashes at fixed speed camera location

Five years before – Jan 2002 to Jan 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	21	21	28	2.394
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	11	11	24	1.254



## Infringements at fixed speed camera location

### PACIFIC HIGHWAY CHARMHAVEN



## Summary

The fixed speed camera on the Pacific Highway, Charmhaven was installed in April 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that although crashes have not decreased at this location in the four years since installation, casualties have reduced over this period. In the five years prior to the installation of the fixed speed camera at this location, there were 28 crashes resulting in zero fatalities and 21 injuries. In the four year period 2007 – 2011 there were 24 crashes resulting in zero fatalities and 11 injuries. When compared to the pre installation period, this is a seven per cent increase in the annual average number of crashes. However, over the same period there is a 35 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$661,200 in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

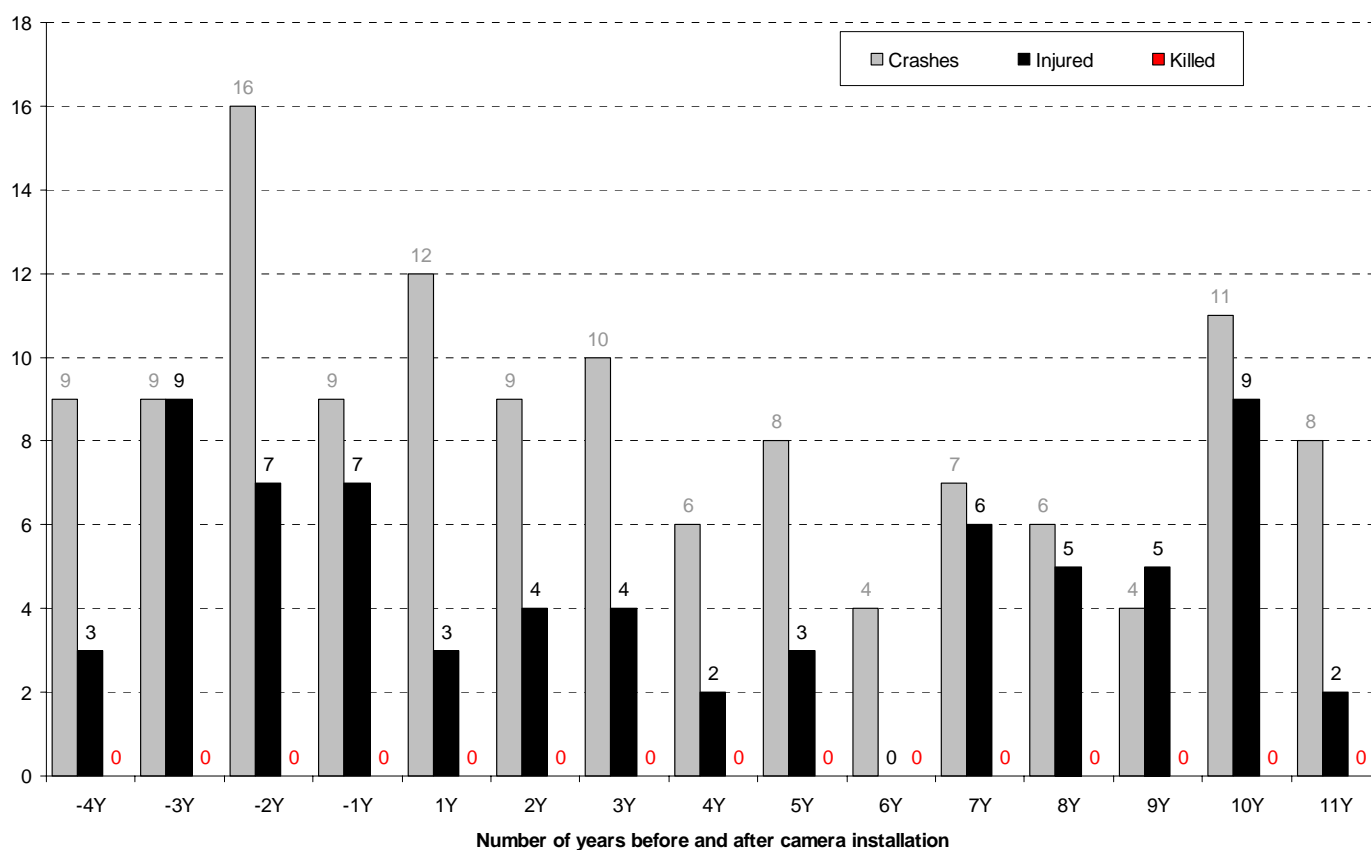
## Fixed digital speed camera – Concord Road, Concord West

Location: Concord Road, between Nirranda Street and Mepunga Street, Concord West.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	24/07/2000

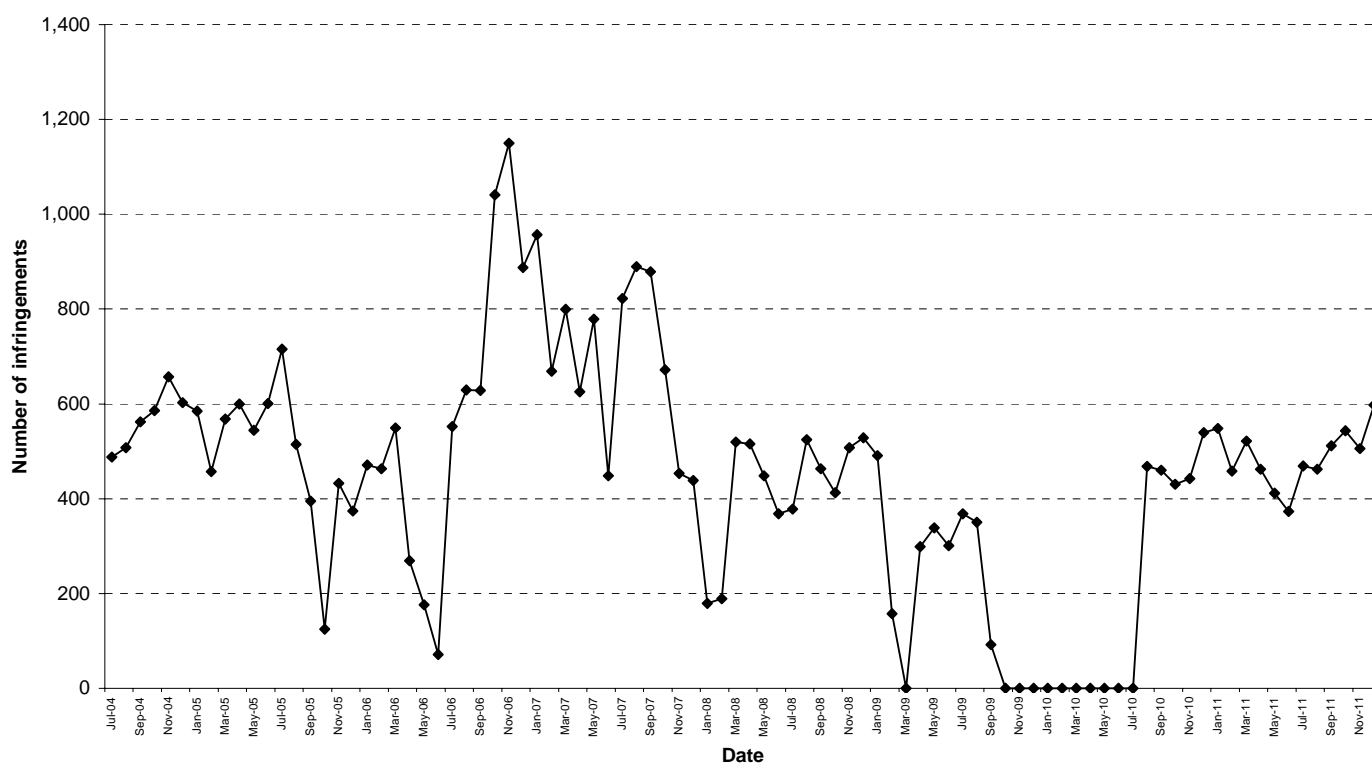
### Crashes at fixed speed camera location

Four years before – Apr 1995 to Apr 2000 (no data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	26	26	43	2.964
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	27	27	36	3.078



## Infringements at fixed speed camera location

CONCORD ROAD CONCORD WEST



### Summary

The fixed speed camera on Concord Road, Concord West was installed in July 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 43 crashes resulting in zero fatalities and 26 injuries. In the five year period 2006 – 2011 there were 36 crashes resulting in zero fatalities and 27 injuries. When compared to the pre installation period, this is a 33 per cent reduction in the annual average number of crashes and a 17 per cent reduction in the annual average number of casualties. This has been a saving of \$627,000 in costs to the community.

Provisional crash data show there were five crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The extended period of camera downtime at this location from October 2009 – July 2010 was due to extensive road resurfacing works.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

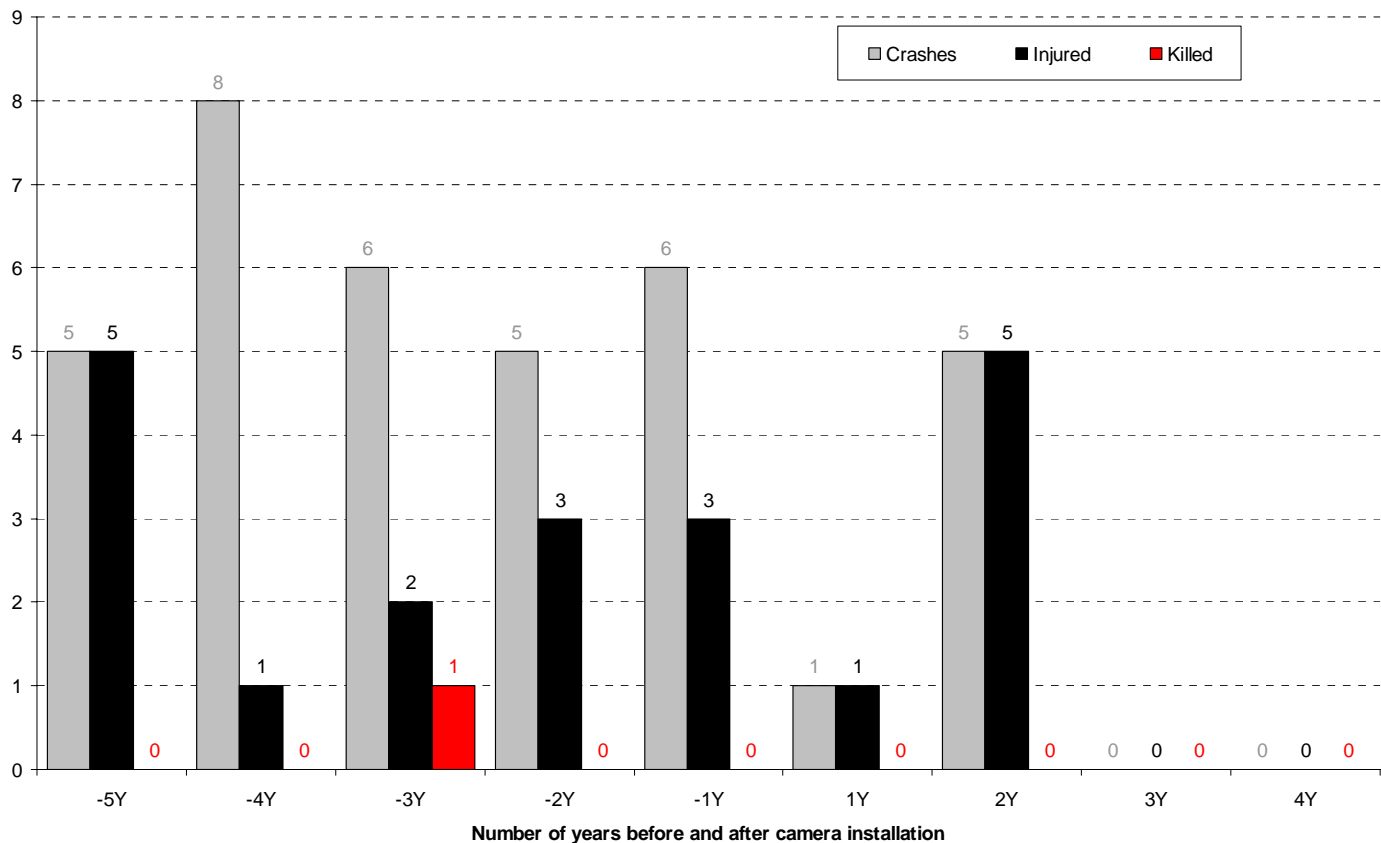
### Fixed digital speed camera – Edgar Street, Condell Park (school zone)

Location: Edgar Street, between Augusta Street and Upper Railway Parade, Condell Park.  
 School zone: Condell Park Primary School.

<b>Length description</b>	150m south of camera to 90m north of camera
<b>Total length (m)</b>	240 (Patch to Patch)
<b>Started Infringing</b>	24/10/2007

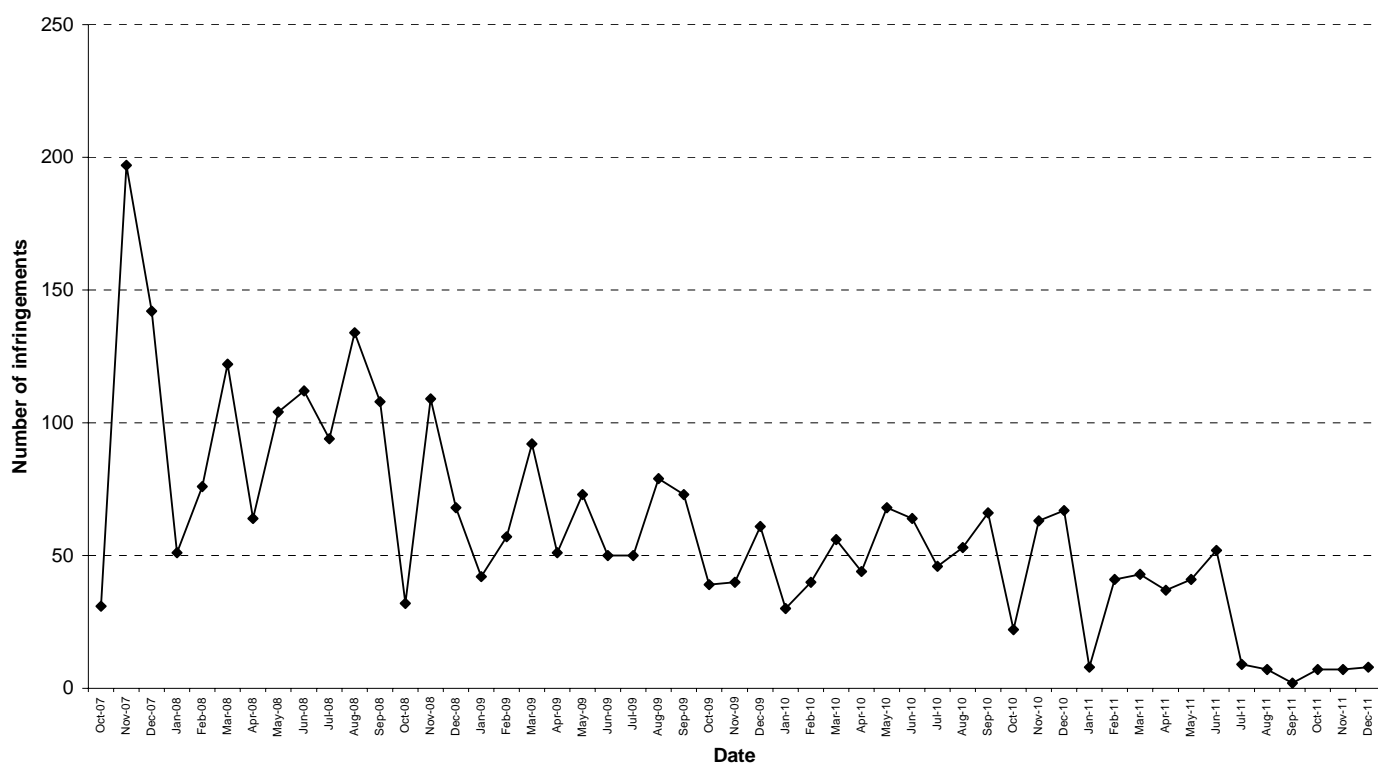
### Crashes at fixed speed camera location

Five years before – Jul 2002 to Jul 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	14	15	30	7.43
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	6	0.684



## Infringements at fixed speed camera location

EDGAR STREET CONDELL PARK



### Summary

The school zone fixed speed camera on Edgar Street, Condell Park was installed in October 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 30 crashes resulting in one fatality and 14 injuries. In the four year period 2007 – 2011 there were six crashes resulting in zero fatalities and six injuries. When compared to the pre installation period, this is a 75 per cent reduction in the annual average number of crashes and a 50 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$5.3 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

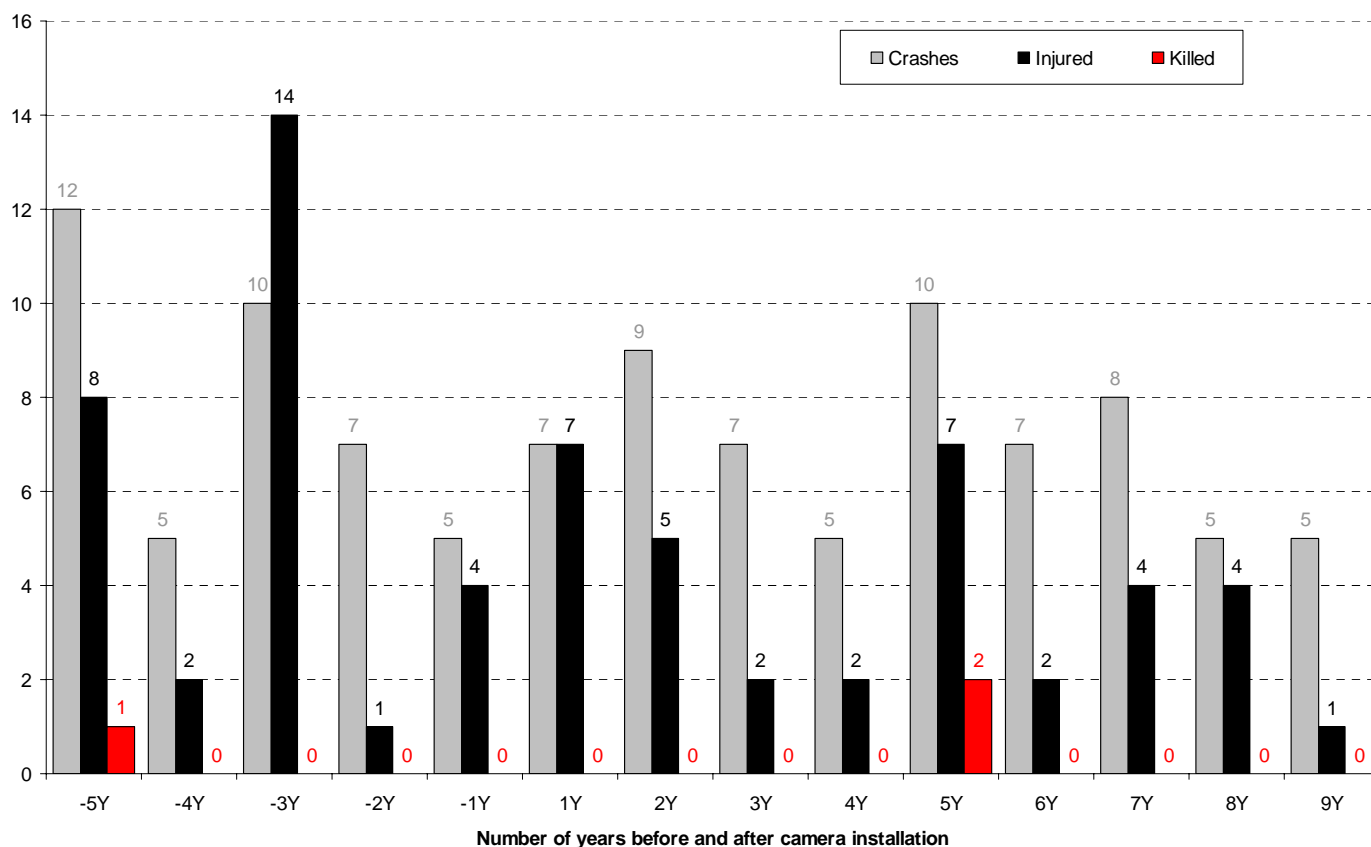
## Fixed digital speed camera – Northern Distributor, Corrimal

Location: Northern Distributor, between Towradgi Road and Railway Street, Corrimal.

<b>Length description</b>	500m south of camera to 500m north of cameras
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	11/07/2002 (camera 1 - northbound) 25/07/2002 (camera 2 - southbound)

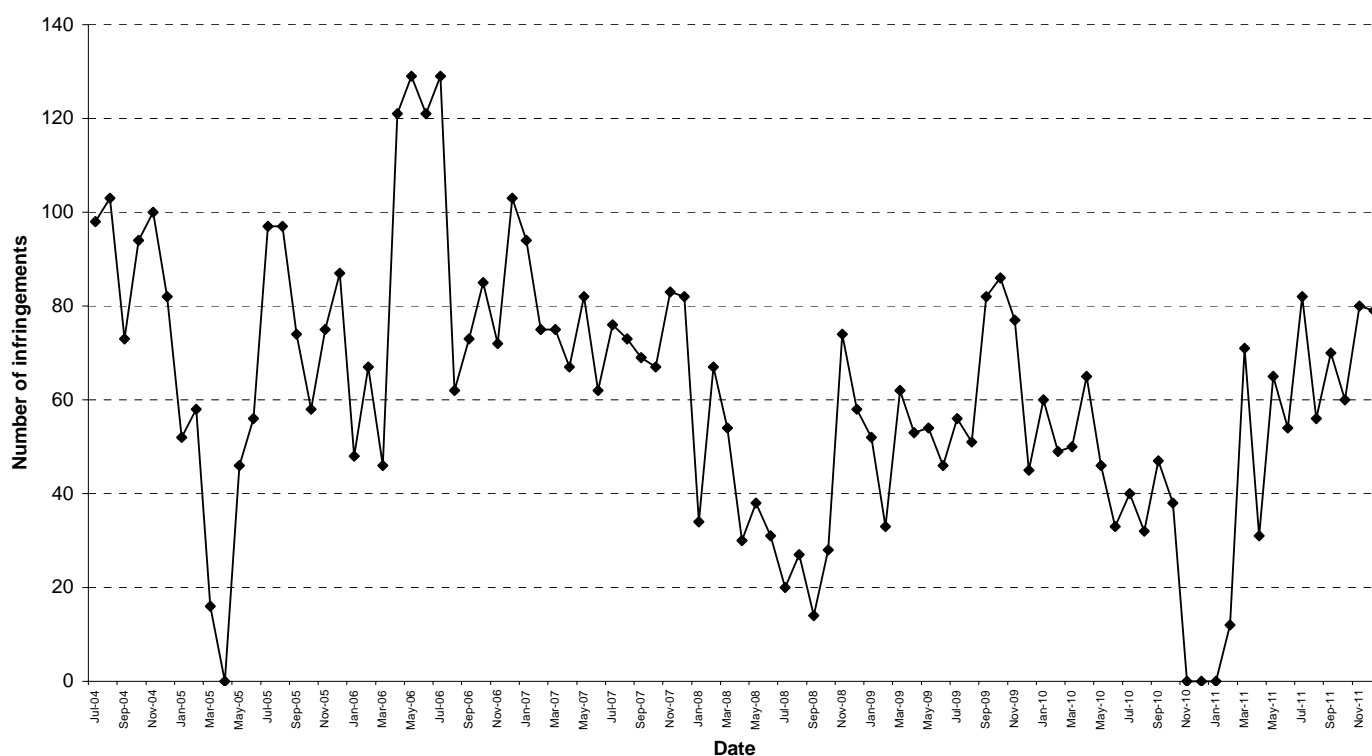
### Crashes at fixed speed camera location

Five years before – Jul 2002 to Jul 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	29	30	39	9.14
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	18	20	35	13.72



## Infringements at fixed speed camera location

NORTHERN DISTRIBUTOR CORRIMAL



### Summary

The fixed speed cameras on the Northern Distributor, Corrimal were installed in July 2002. There are two cameras installed at this location.

In the five years prior to the installation of the fixed speed cameras at this location, there were 39 crashes resulting in one fatality and 29 injuries. In the five year period 2006 – 2011 there were 35 crashes resulting in two fatalities and 18 injuries.

When comparing the annual average number of crashes and casualties before and after camera installation, crashes have decreased by 10 per cent at this location, casualties have decreased by 33 per cent, and fatalities have increased from one to two.

Provisional crash data show there were three crashes resulting in one fatality and four injuries at this fixed speed camera location in 2011.

Based on the assessment criteria the fixed speed cameras on the Northern Distributor, Corrimal were identified for review. Two fatalities (one fatal crash) occurred during the five year analysis period and a further fatality is recorded in provisional 2011 crash data. The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data indicate a consistent level of speeding has been recorded at this location over time.

Based on the additional information, it is recommended that this speed camera location be reviewed.



## Fixed digital speed camera – Eastern Distributor, Darlinghurst

Location: Eastern Distributor , between Oxford Street and William Street, Darlinghurst.

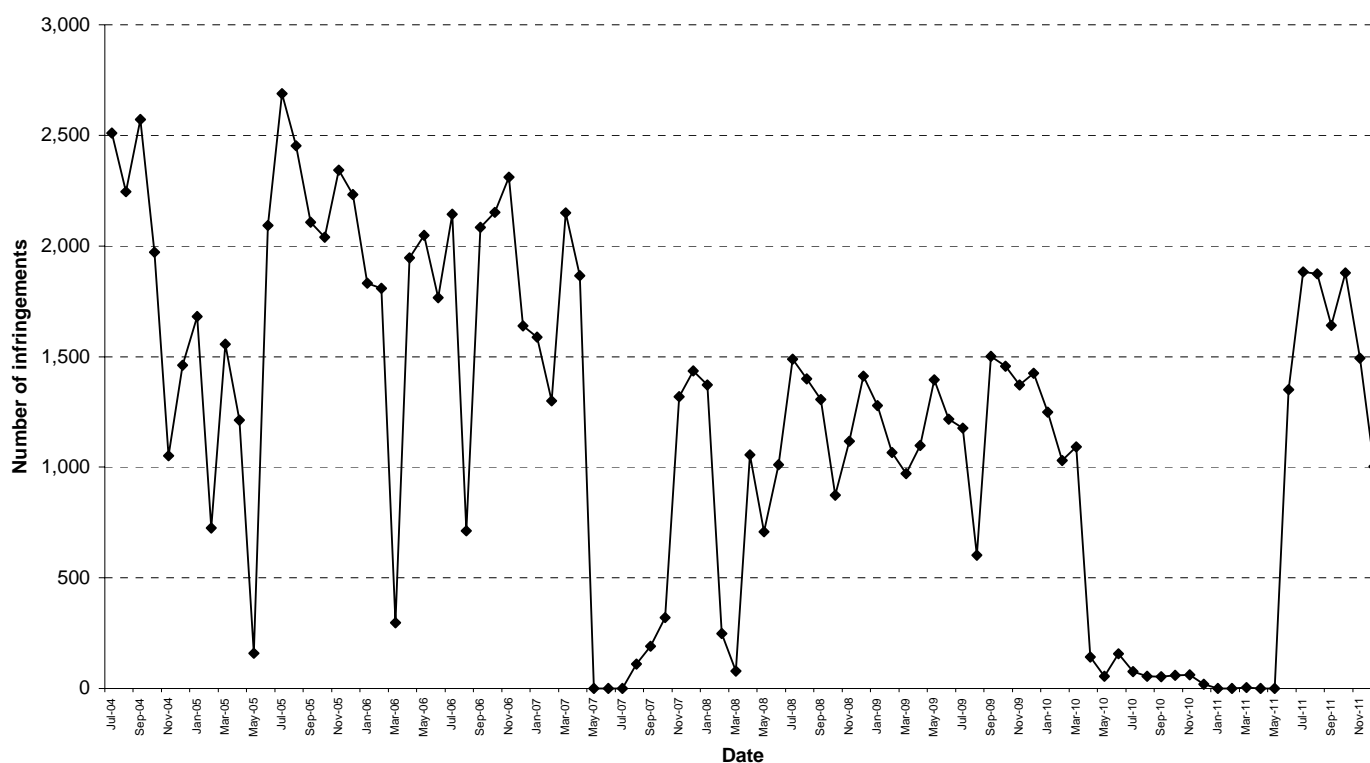
<b>Length description</b>	450m north of camera to 1195m south of camera (southbound)
	450m north of camera to 1195m south of camera (northbound)
<b>Total length (m)</b>	1645
<b>Started Infringing</b>	06/06/2000 (camera 1 - southbound) 30/11/2000 (camera 2 – northbound)

## High risk fixed speed camera location – Provisional crash data calendar year 2011

Southbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	2	1	3	0	3	3
Northbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	4	3	7	0	6	6

## Infringements at fixed speed camera location

EASTERN DISTRIBUTOR DARLINGHURST



## Summary

The fixed speed cameras in the Eastern Distributor, Darlinghurst were installed in June 2000 (southbound) and November 2000 (northbound). There are two speed camera installed at this location.

This location is appropriate for fixed speed camera enforcement as it is a high risk location that is difficult for the NSW Police Force to enforce using traditional methods. Provisional crash data show there were 10 crashes resulting in zero fatalities and nine injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available.. Roadworks and camera maintenance may influence the number of infringements issued.

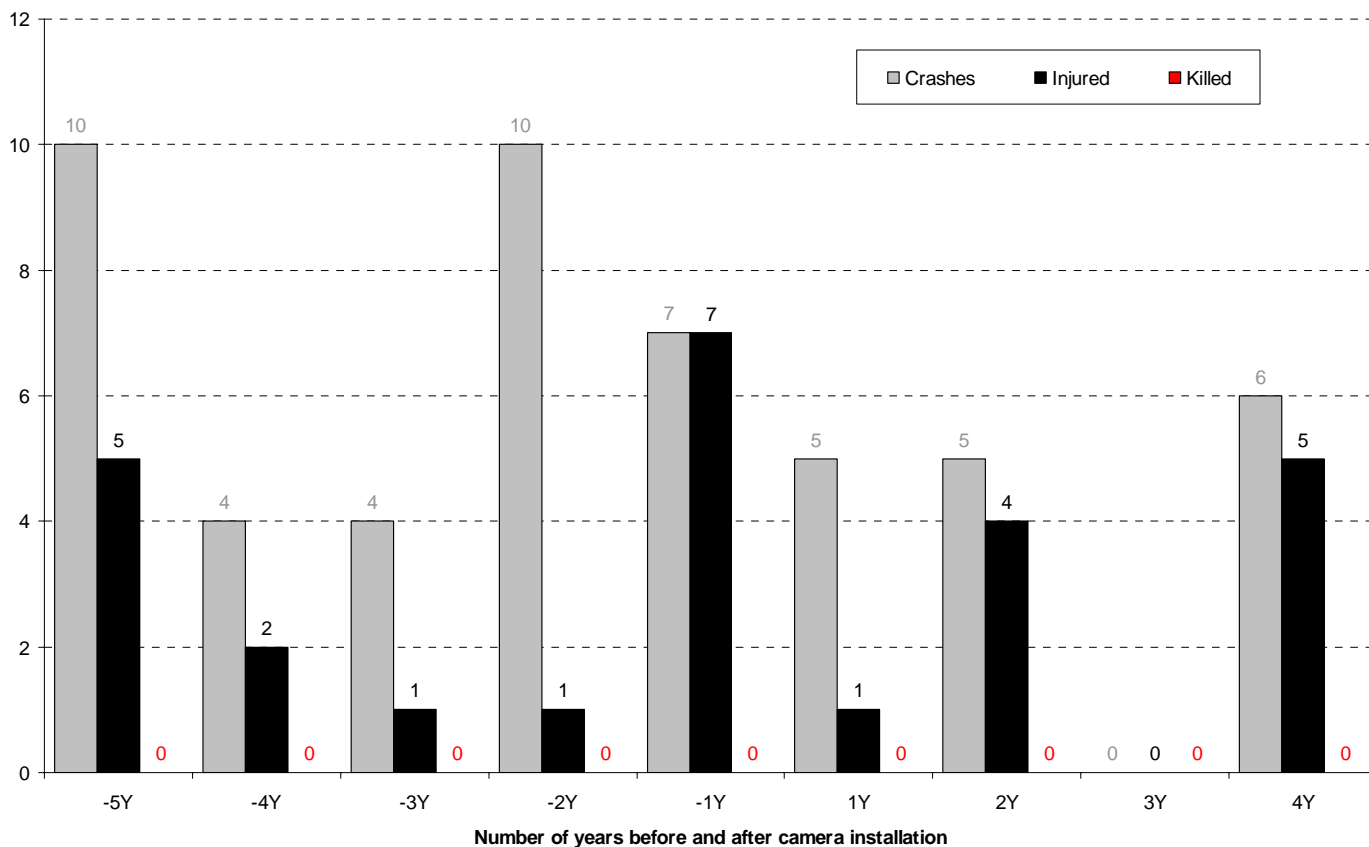
## Fixed digital speed camera – Bunnerong Road, East Gardens/ Maroubra (school zone)

Location: Bunnerong Road, between Fitzgerald Avenue and Smith Street, East Gardens / Maroubra. School zone: Marist College Pagewood.

<b>Length description</b>	220m south of camera to 150m north of cameras
<b>Total length (m)</b>	370 (Patch to Patch)
<b>Started Infringing</b>	20/06/2007

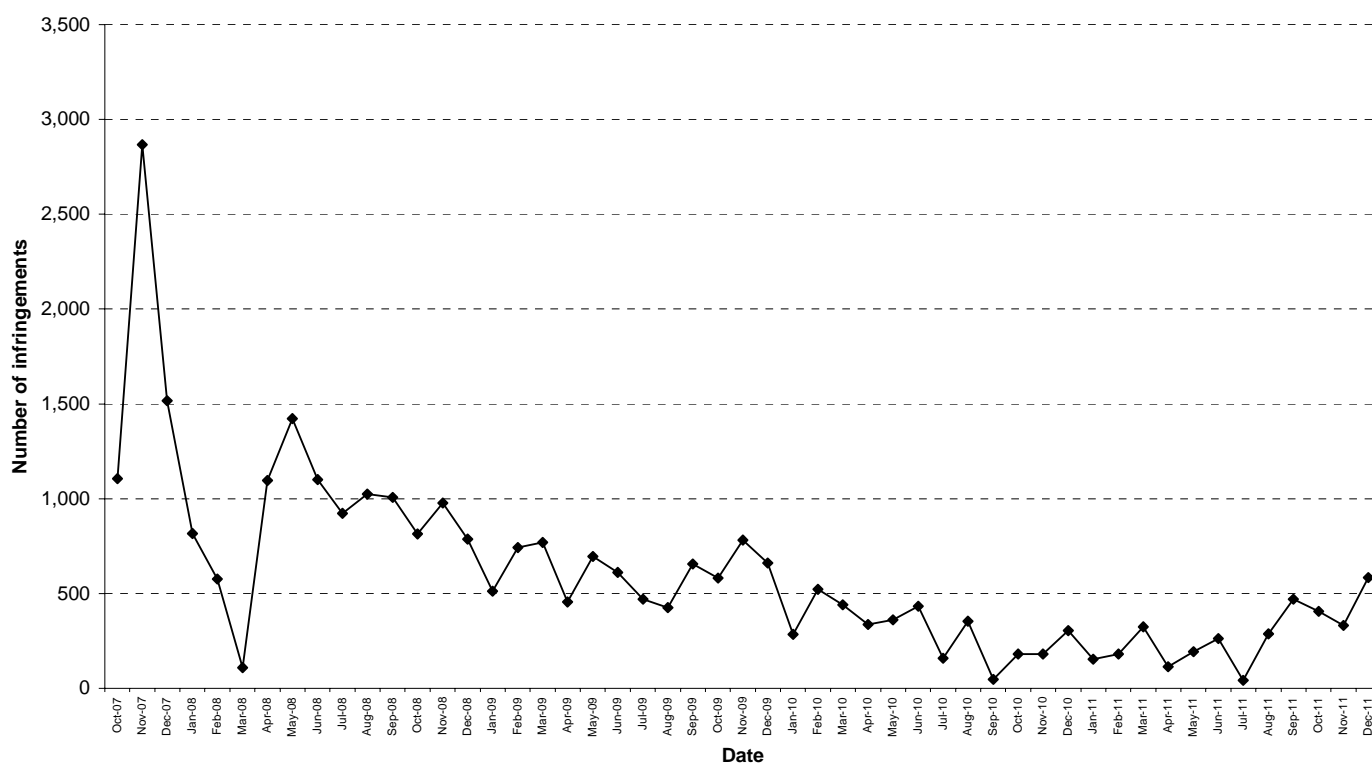
### Crashes at fixed speed camera location

Five years before – Mar 2002 to Mar 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	16	16	35	1.824
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	10	10	16	1.14



## Infringements at fixed speed camera location

BUNNERONG ROAD EASTGARDENS/MAROUBRA



### Summary

The school zone fixed speed cameras on Bunnerong Road, East Gardens/ Maroubra were installed in June 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed cameras at this location, there were 35 crashes resulting in zero fatalities and 16 injuries. In the four year period 2007 – 2011 there were 16 crashes resulting in zero fatalities and 10 injuries. When compared to the pre installation period, this is a 43 per cent reduction in the annual average number of crashes and a 22 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$319,200 in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

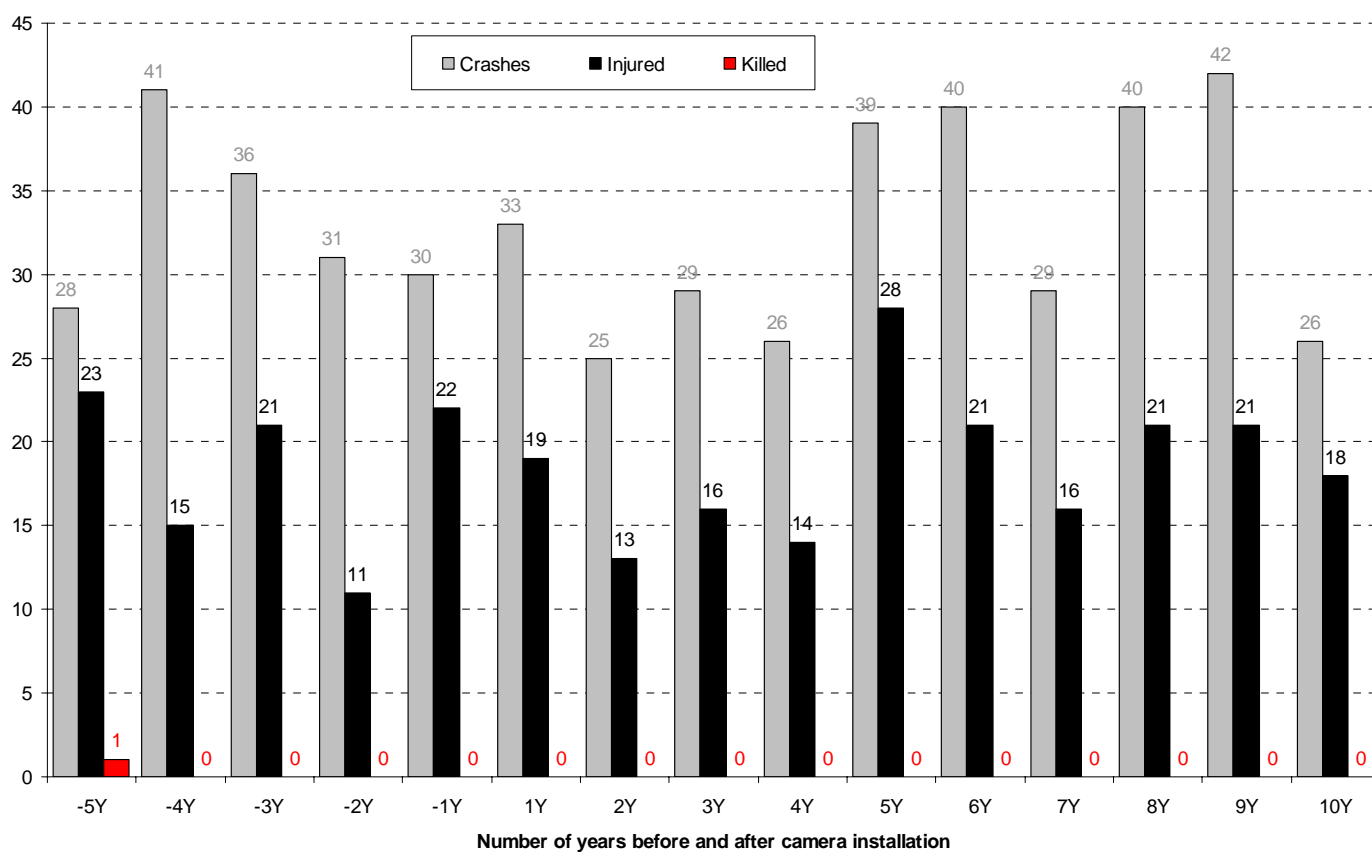
## Fixed digital speed camera – New South Head Road, Edgecliff

Location: New South Head Road, between Waratah Street and New Beach Road, Edgecliff.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	07/12/2001

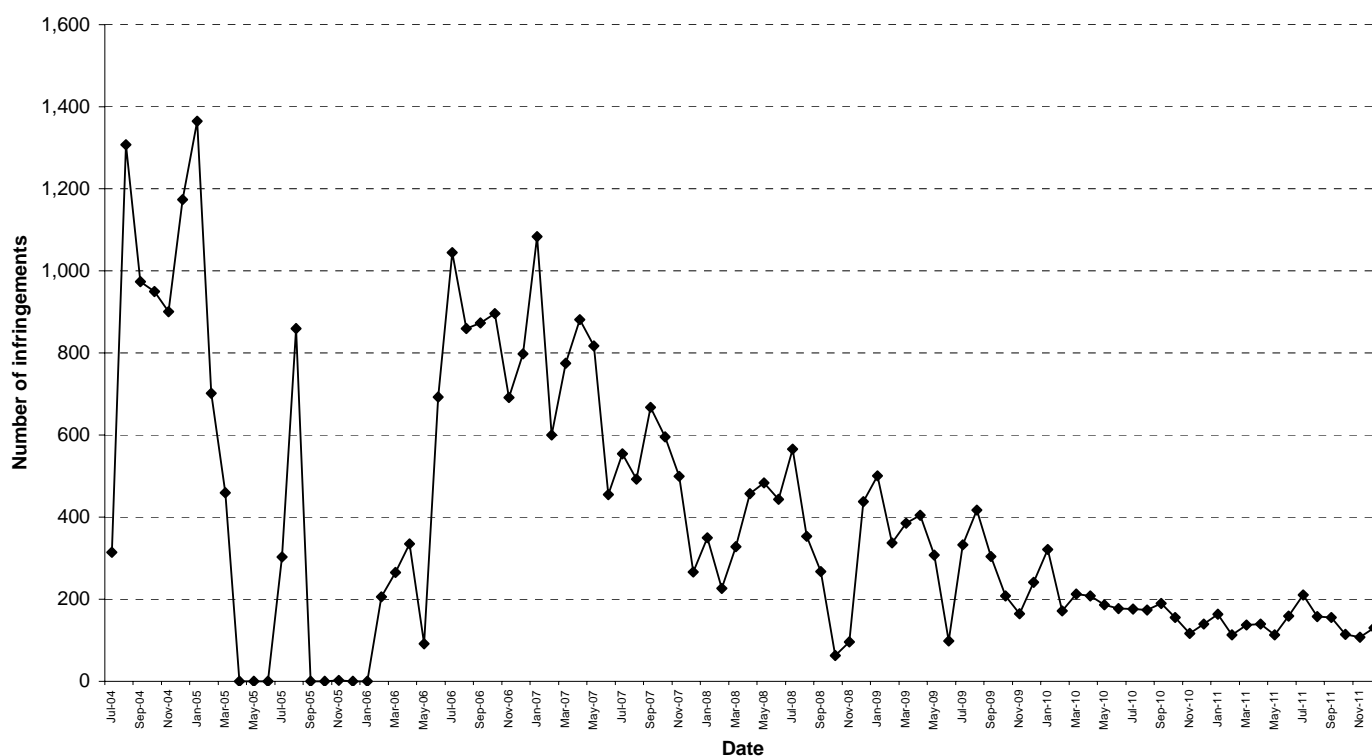
### Crashes at fixed speed camera location

Five years before – Sep 1996 to Sep 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	92	93	166	16.322
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	97	97	177	11.058



## Infringements at fixed speed camera location

### NEW SOUTH HEAD ROAD EDGECLIFF



## Summary

The fixed speed camera at New South Head Road, Edgecliff was installed in December 2001. There is one camera installed at this location.

Crashes and casualties at this location have increased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 166 crashes resulting in one fatality and 92 injuries. In the five year period 2006 – 2011 there were 177 crashes resulting in zero fatalities and 97 injuries. When compared to the pre installation period, this is a seven per cent increase in the annual average number of crashes and a five per cent increase in the annual average number of casualties.

Based on the assessment criteria the speed camera at New South Head Road, Edgecliff was identified for review. A detailed analysis of the five year before and current five year period indicates that speed-related crashes have reduced, the number of non-intersection crashes has reduced and the number of intersection crashes has increased.

Based on the additional information, it is recommended that this speed camera location be reviewed.

Provisional crash data show there were 26 crashes resulting in zero fatalities and 19 injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

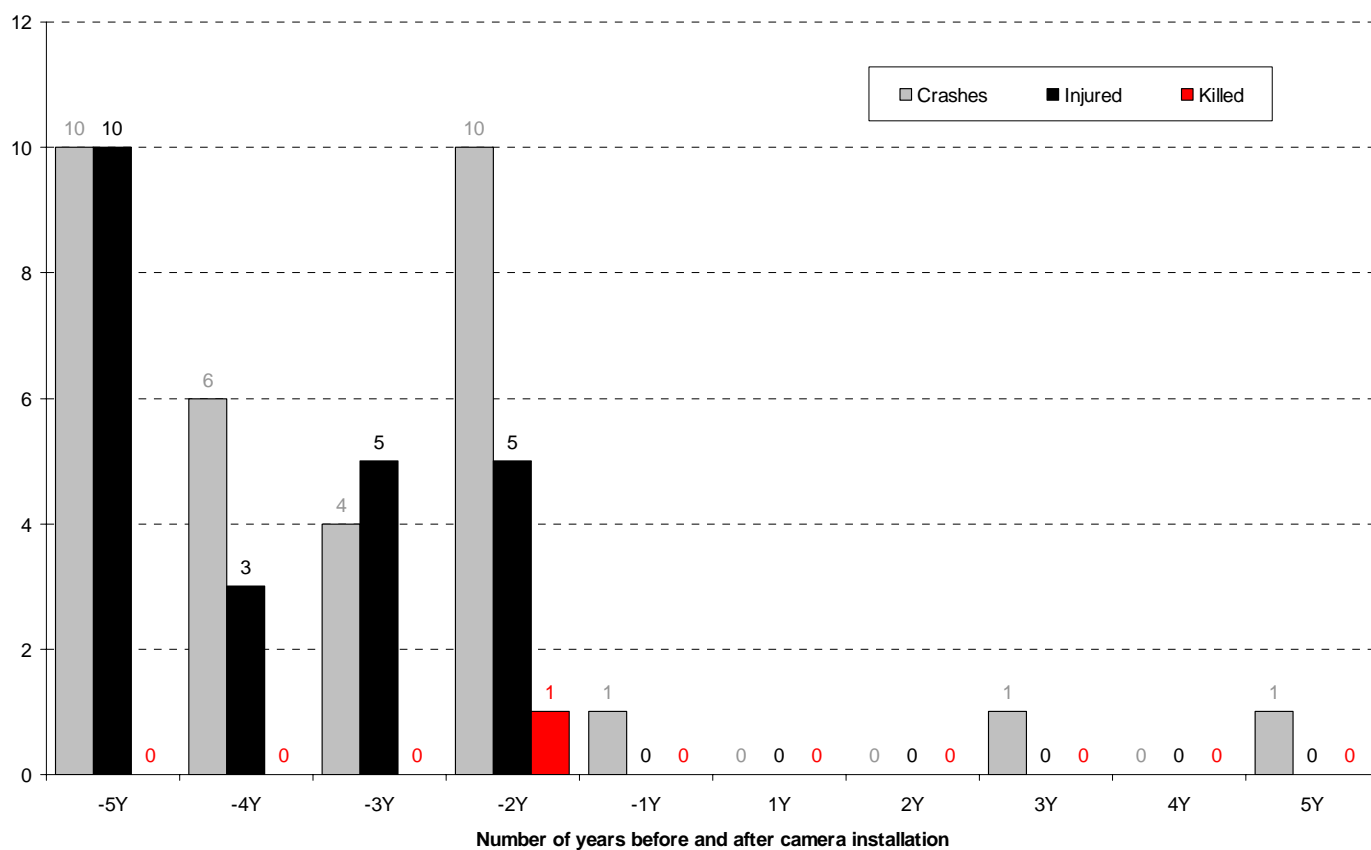
## Fixed digital speed camera – Pacific Highway, Ewingsdale

Location: Pacific Highway, between St Helena Road and Ewingsdale Road, Ewingsdale.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	22/09/2006

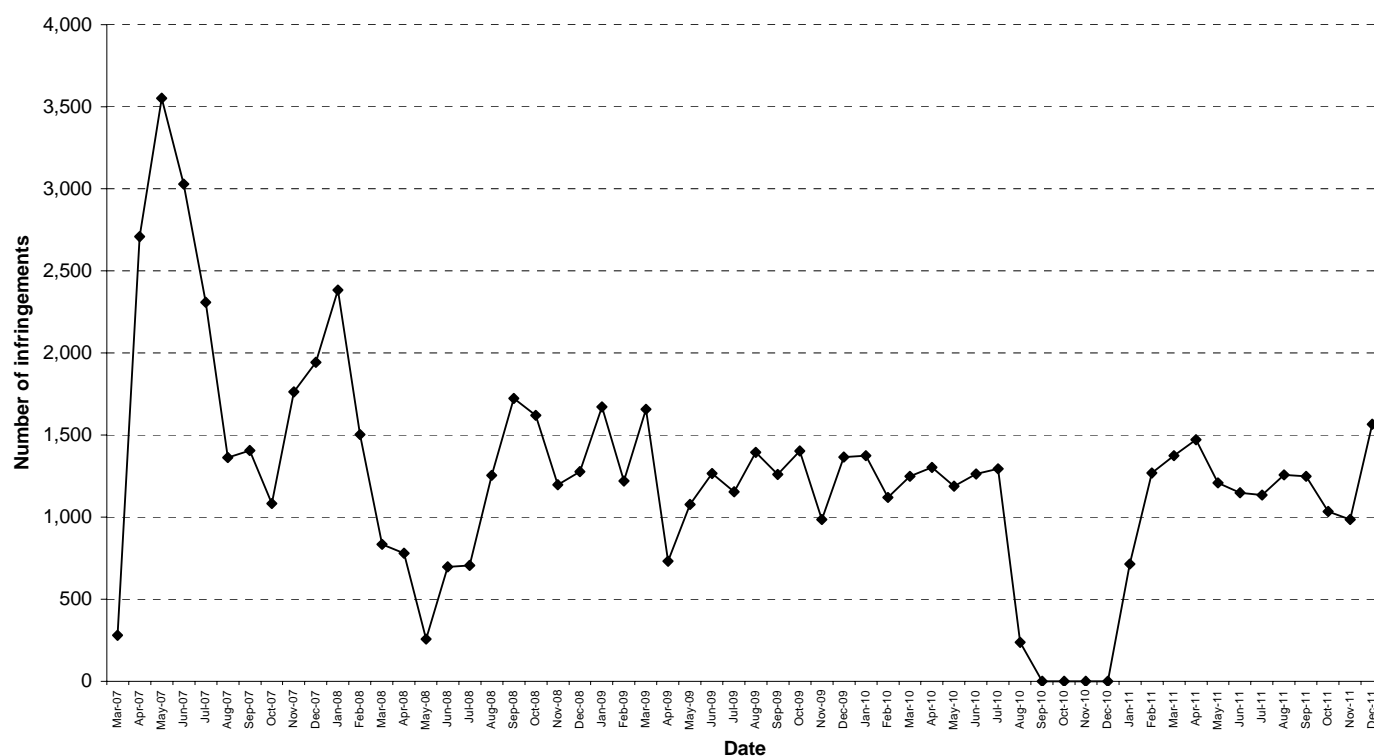
### Crashes at fixed speed camera location

Five years before – Jun 2001 to Jun 2006 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	23	24	31	8.456
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	0	0	2	0



## Infringements at fixed speed camera location

### PACIFIC HIGHWAY EWINGSDALE



### Summary

The fixed speed camera on the Pacific Highway, Ewingsdale was installed in September 2006. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 31 crashes resulting in one fatality and 23 injuries. In the five year period 2006 – 2011 there were two crashes resulting in zero fatalities and zero injuries. When compared to the pre installation period, this is a 94 per cent reduction in the annual average number of crashes and a 100 per cent reduction in the annual average number of casualties. This has been a saving of \$8.5 million in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

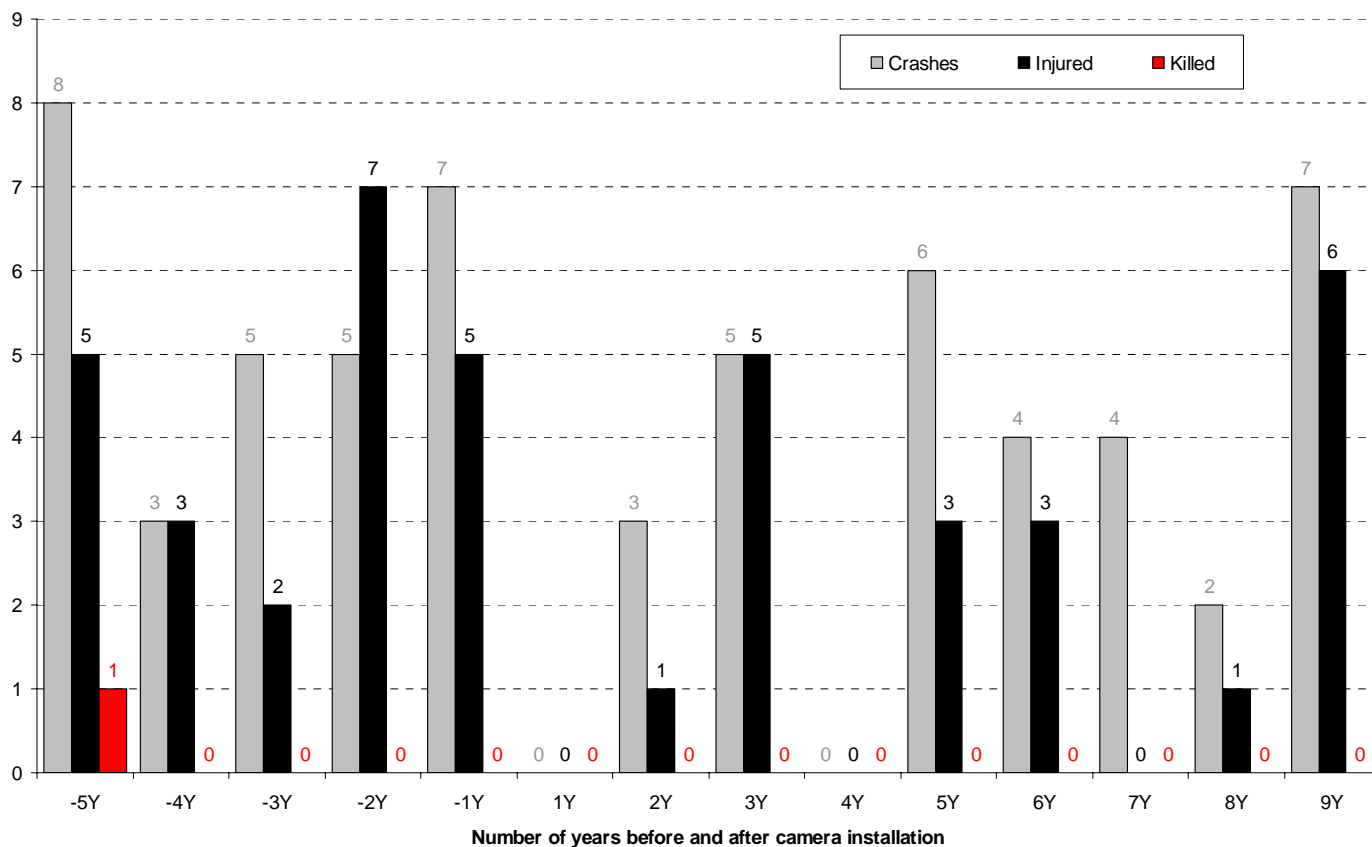
### Fixed digital speed camera – Fairfield Street, Fairfield East

Location: Fairfield Street, between Scott Street and Mandarin Street, Fairfield East.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	04/07/2002

### Crashes at fixed speed camera location

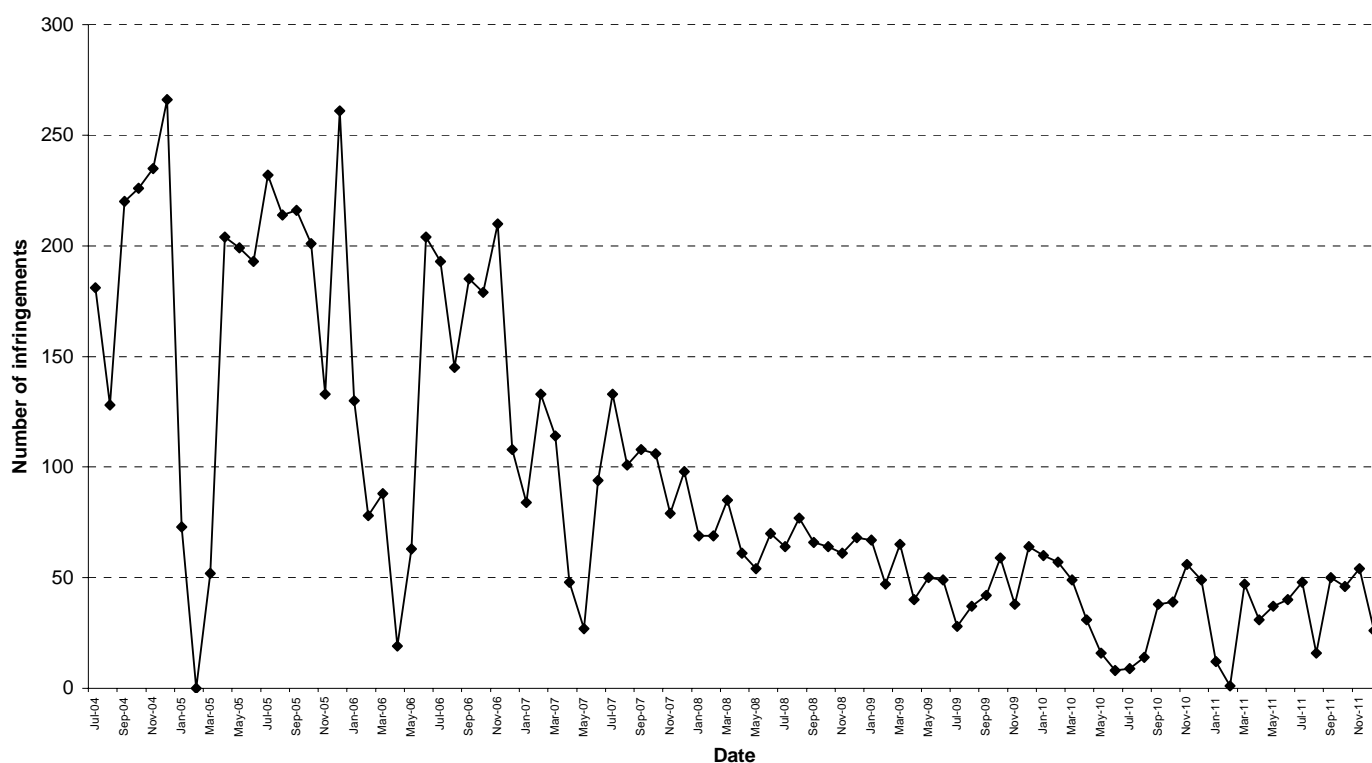
Five years before – Apr 1997 to Apr 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	22	23	28	8.342
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	13	13	23	1.482





## Infringements at fixed speed camera location

FAIRFIELD STREET FAIRFIELD EAST



### Summary

The fixed speed camera on Fairfield Street, Fairfield East was installed in July 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 28 crashes resulting in one fatality and 22 injuries. In the five year period 2006 – 2011 there were 23 crashes resulting in zero fatalities and 13 injuries. When compared to the pre installation period, this is a 18 per cent reduction in the annual average number of crashes and a 43 per cent reduction in the annual average number of casualties. This has been a saving of \$6.7 million in costs to the community.

Provisional crash data show there were 10 crashes resulting in zero fatalities and 10 injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

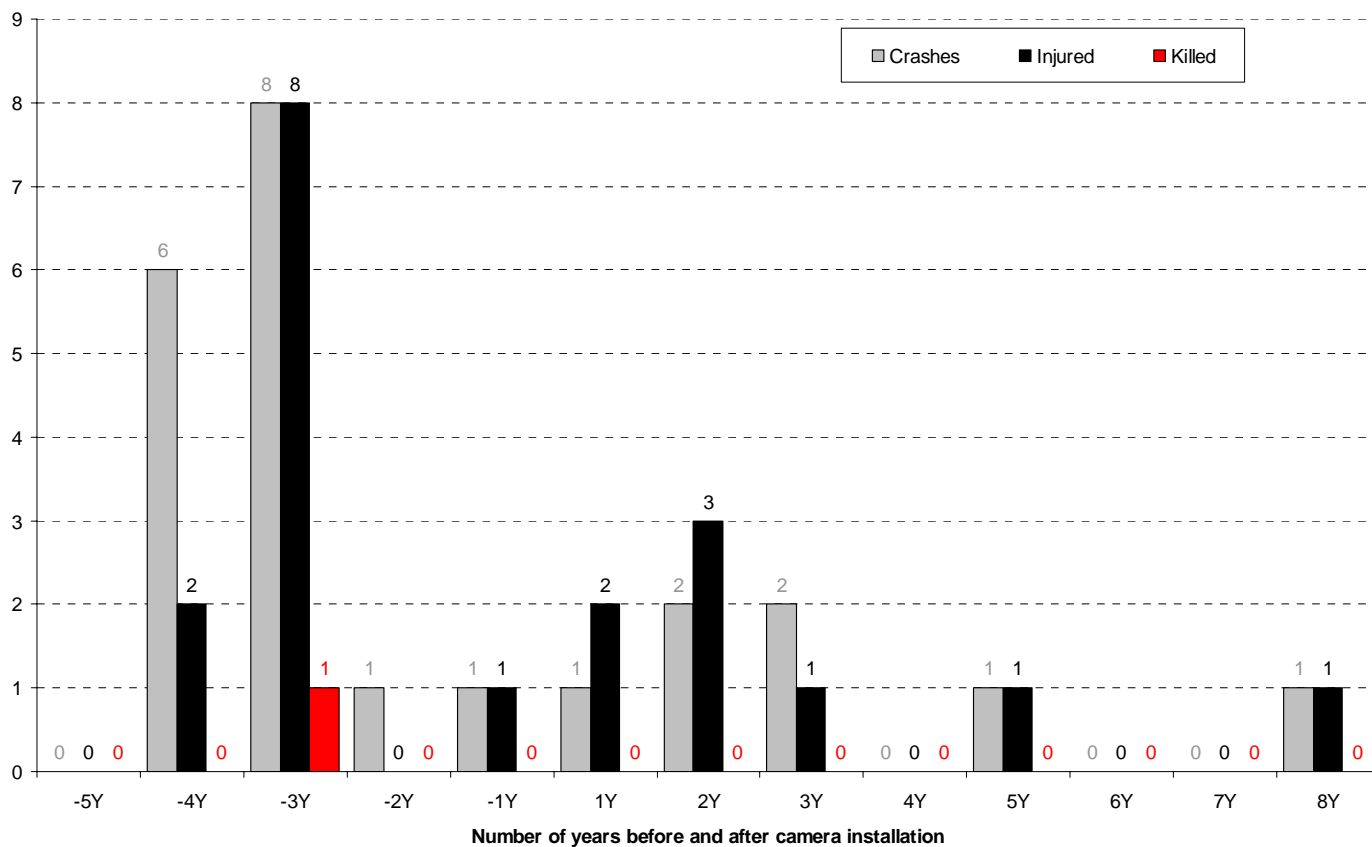
## Fixed digital speed camera – Princes Highway, Foxground

Location: Princes Highway, between Foxground Road and Broughton Creek, Foxground.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	9/05/2003

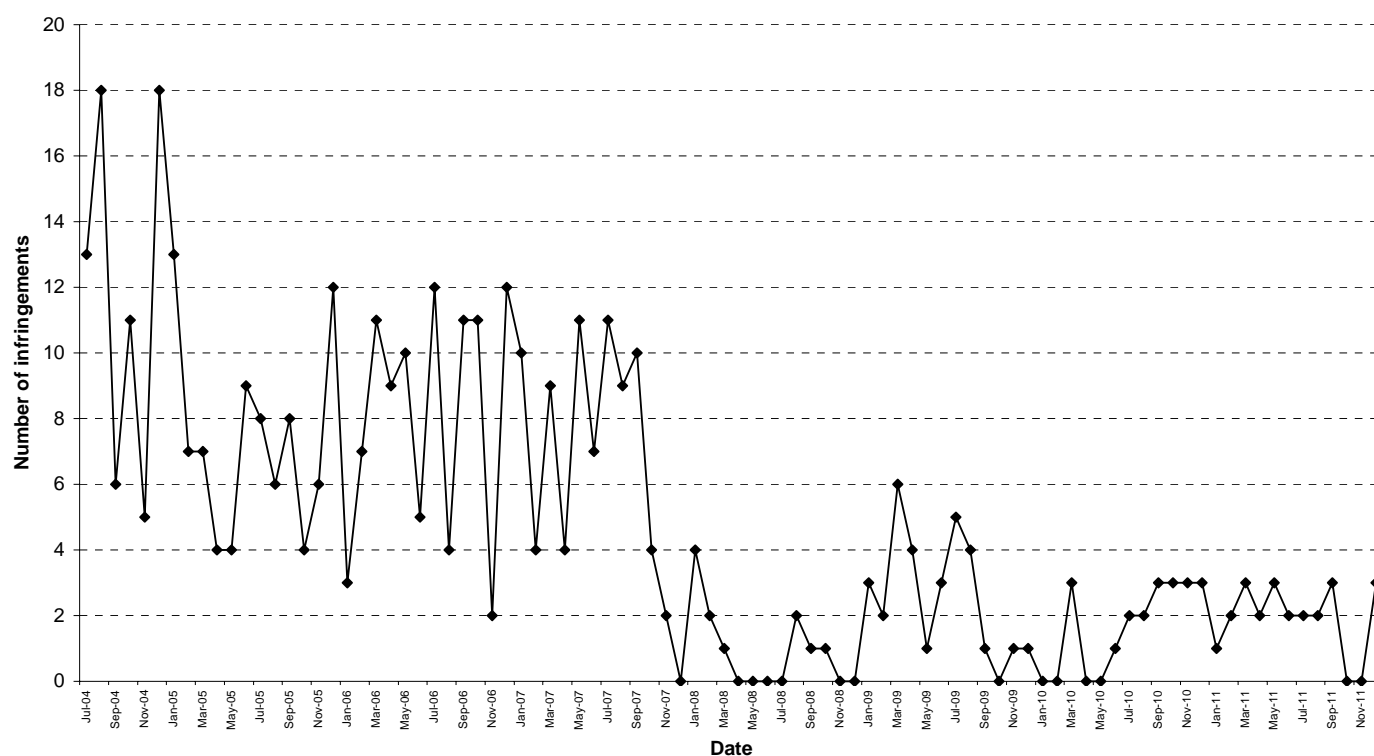
### Crashes at fixed speed camera location

Five years before – Feb 1998 to Feb 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	11	12	16	7.088
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	2	2	2	0.228



## Infringements at fixed speed camera location

### PRINCES HIGHWAY FOXGROUND



## Summary

The fixed speed camera on the Princes Highway, Foxground was installed in May 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 16 crashes resulting in one fatality and 11 injuries. In the five year period 2006 – 2011 there were two crashes resulting in zero fatalities and two injuries. When compared to the pre installation period, this is a 88 per cent reduction in the annual average number of crashes and a 83 per cent reduction in the annual average number of casualties. This has been a saving of \$6.7 million in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

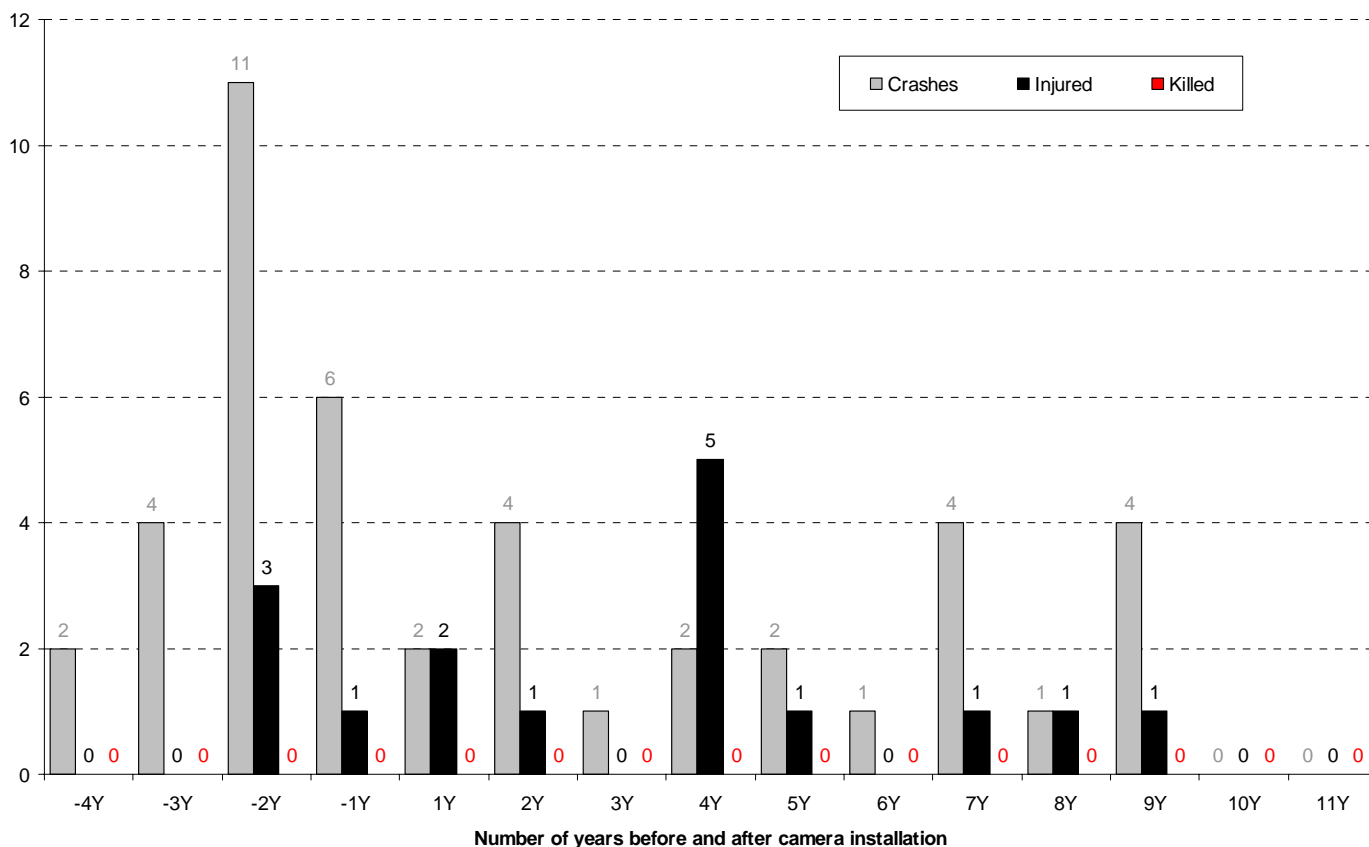
## Fixed digital speed camera – Pacific Highway, Gateshead (school zone)

Location: Pacific Highway, between Sydney Street and Macquarie Avenue, Gateshead.  
 School zone: Hunter Sports High School, Gateshead Public School, St Mary's High School.

<b>Length description</b>	460m north of camera to 360m south of camera
<b>Total length (m)</b>	820 (Patch to Patch)
<b>Started Infringing</b>	30/05/2000

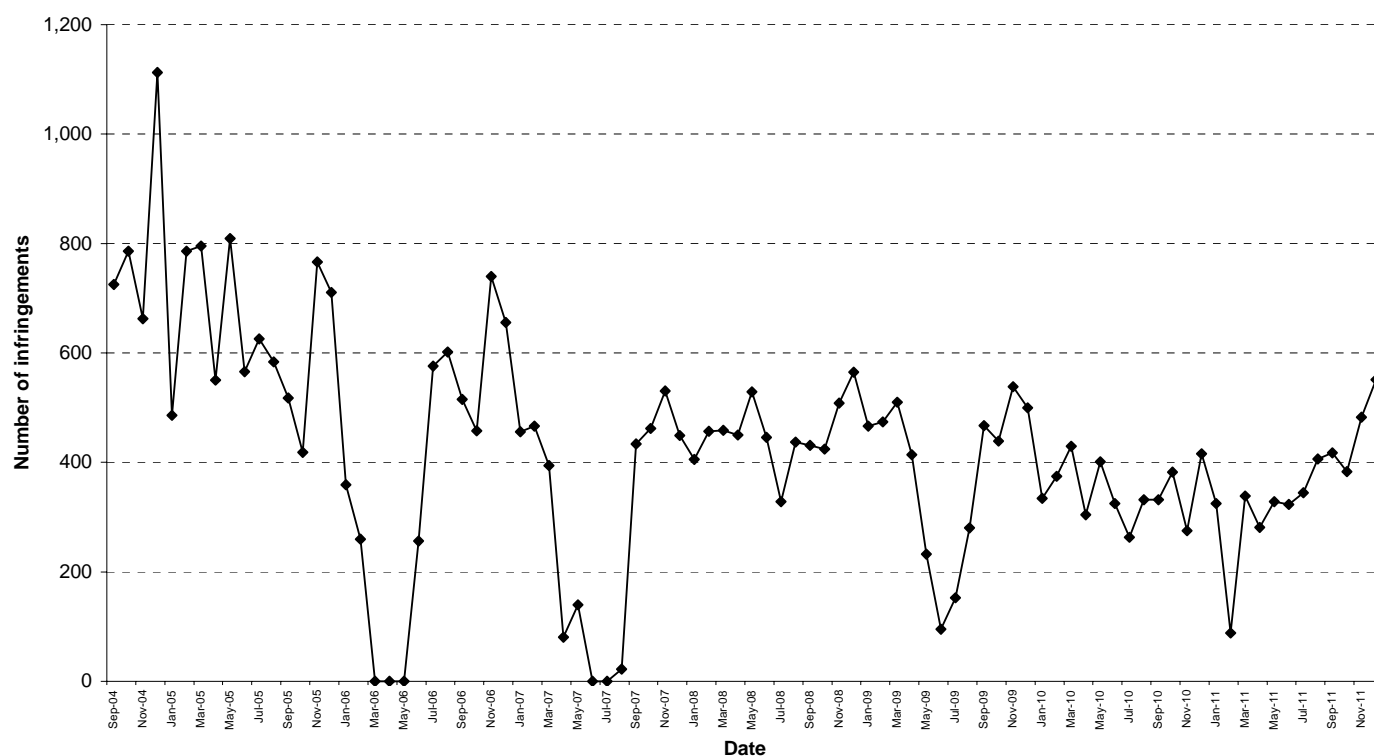
### Crashes at fixed speed camera location

Four years before – Mar 1996 to Mar 2000 (no data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	4	4	23	0.456
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	3	3	9	0.342



## Infringements at fixed speed camera location

### PACIFIC HIGHWAY GATESHEAD



## Summary

The school zone fixed speed camera on the Pacific Highway, Gateshead was installed in May 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 23 crashes resulting in zero fatalities and four injuries. In the five year period 2006 – 2011 there were nine crashes resulting in zero fatalities and three injuries. When compared to the pre installation period, this is a 69 per cent reduction in the annual average number of crashes and a 40 per cent reduction in the annual average number of casualties. This has been a saving of \$228,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

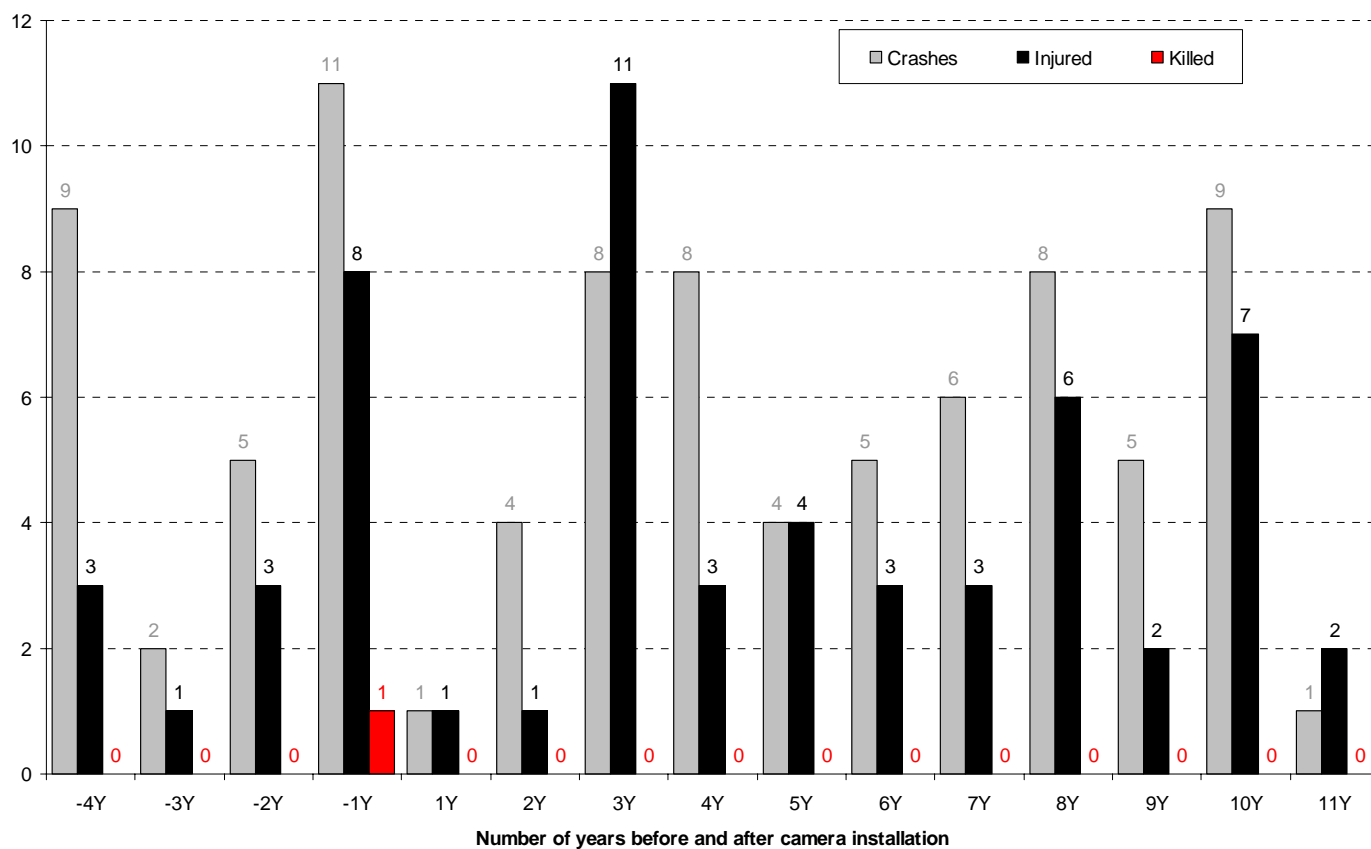
## Fixed digital speed camera – Cowpasture Road, Green Valley

Location: Cowpasture Road, between Seventeenth Avenue and Green Valley Road, Green Valley.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	01/05/2000

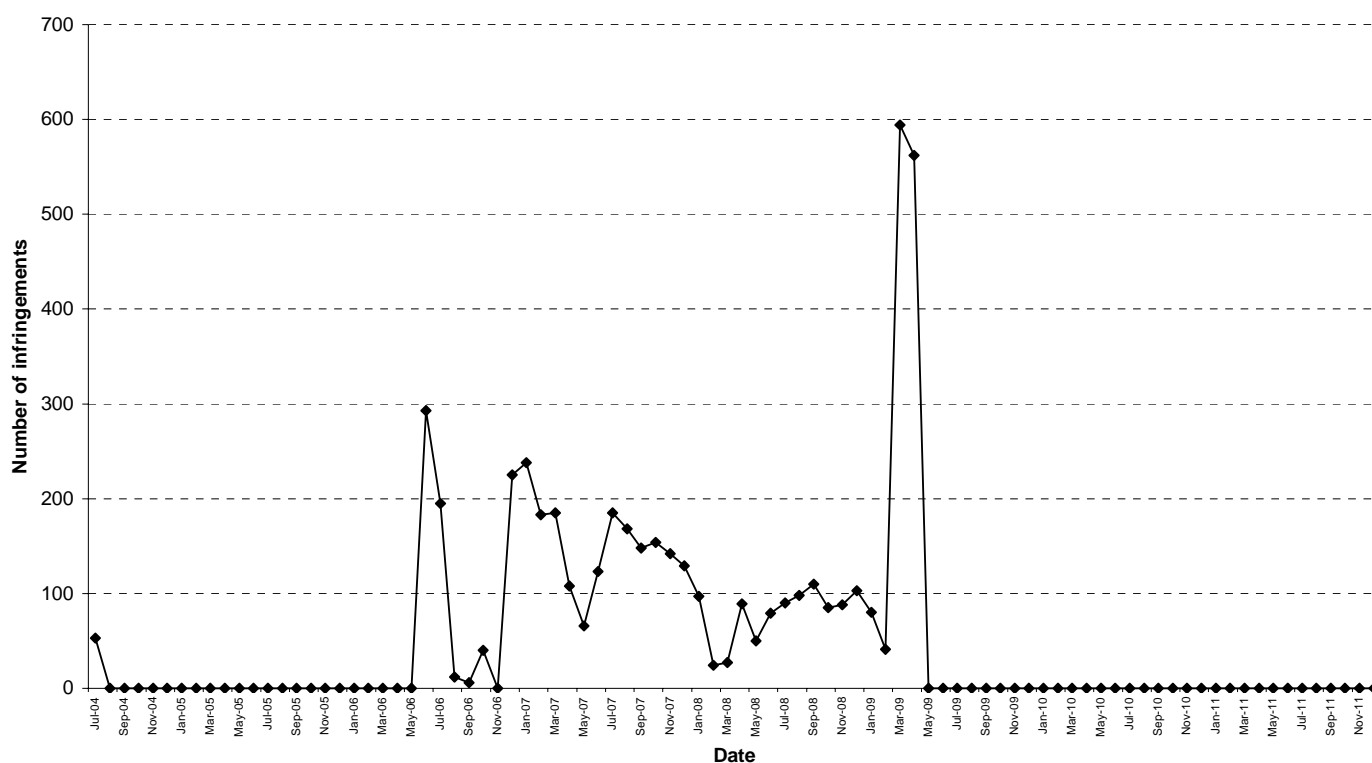
### Crashes at fixed speed camera location

Four years before – Feb 1996 to Jan 2000 (no data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	15	16	27	7.544
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	20	20	29	2.28



## Infringements at fixed speed camera location

COWPASTURE ROAD GREEN VALLEY



### Summary

The fixed speed camera on Cowpasture Road, Green Valley was installed in May 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 27 crashes resulting in one fatality and 15 injuries. In the five year period 2006 – 2011 there were 29 crashes resulting in zero fatalities and 20 injuries. When compared to the pre installation period, this is a 14 per cent reduction in the annual average number of crashes but no change in the annual average number of injuries. This has been a saving of \$7.2 million in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. No infringements were recorded for the periods August 2004 to May 2006 and May 2009 to December 2011 due to roadworks on this road.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

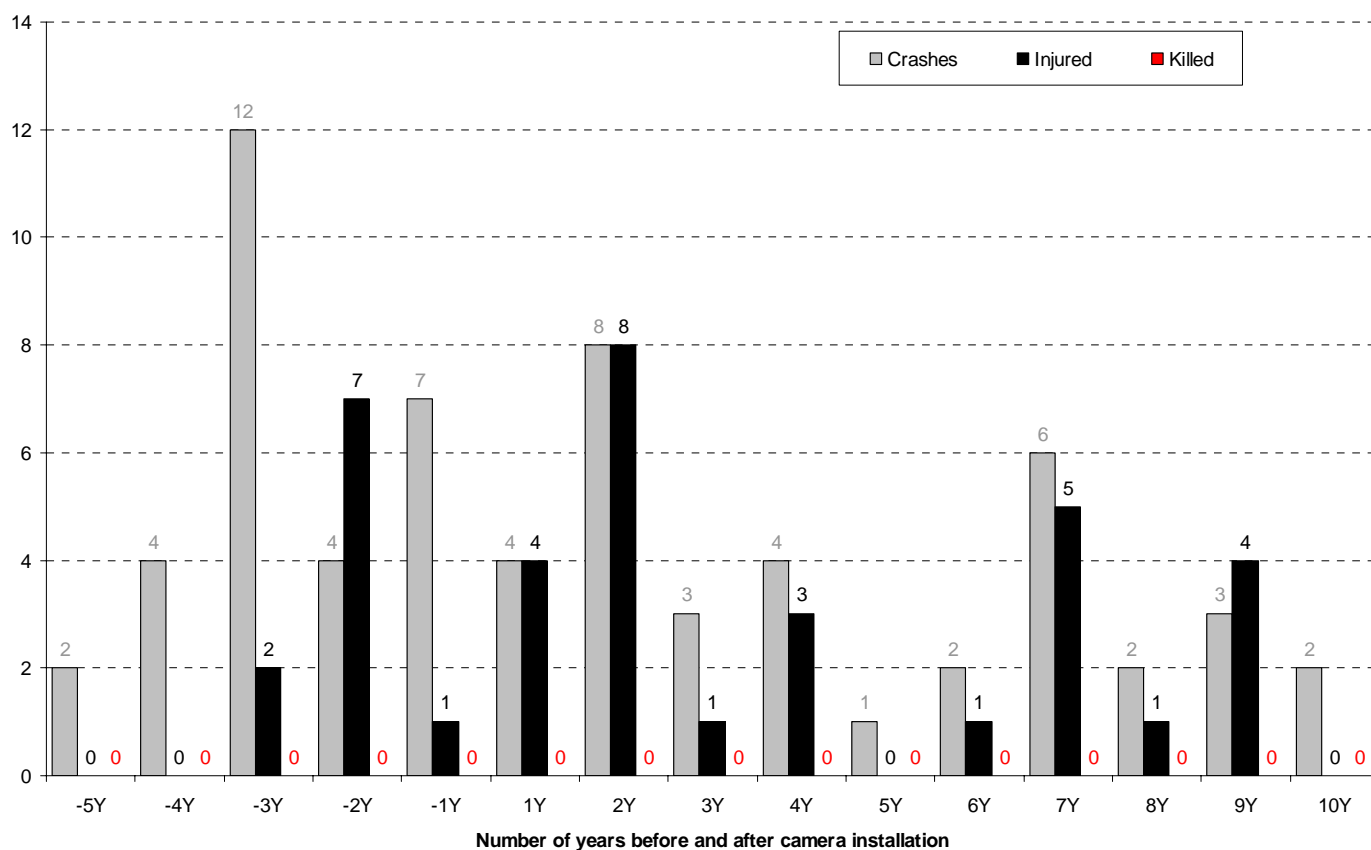
## Fixed digital speed camera – Greystanes Road, Greystanes

Location: Greystanes Road, between Merrylands Road and Old Prospect Road, Greystanes.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	30/11/2001

### Crashes at fixed speed camera location

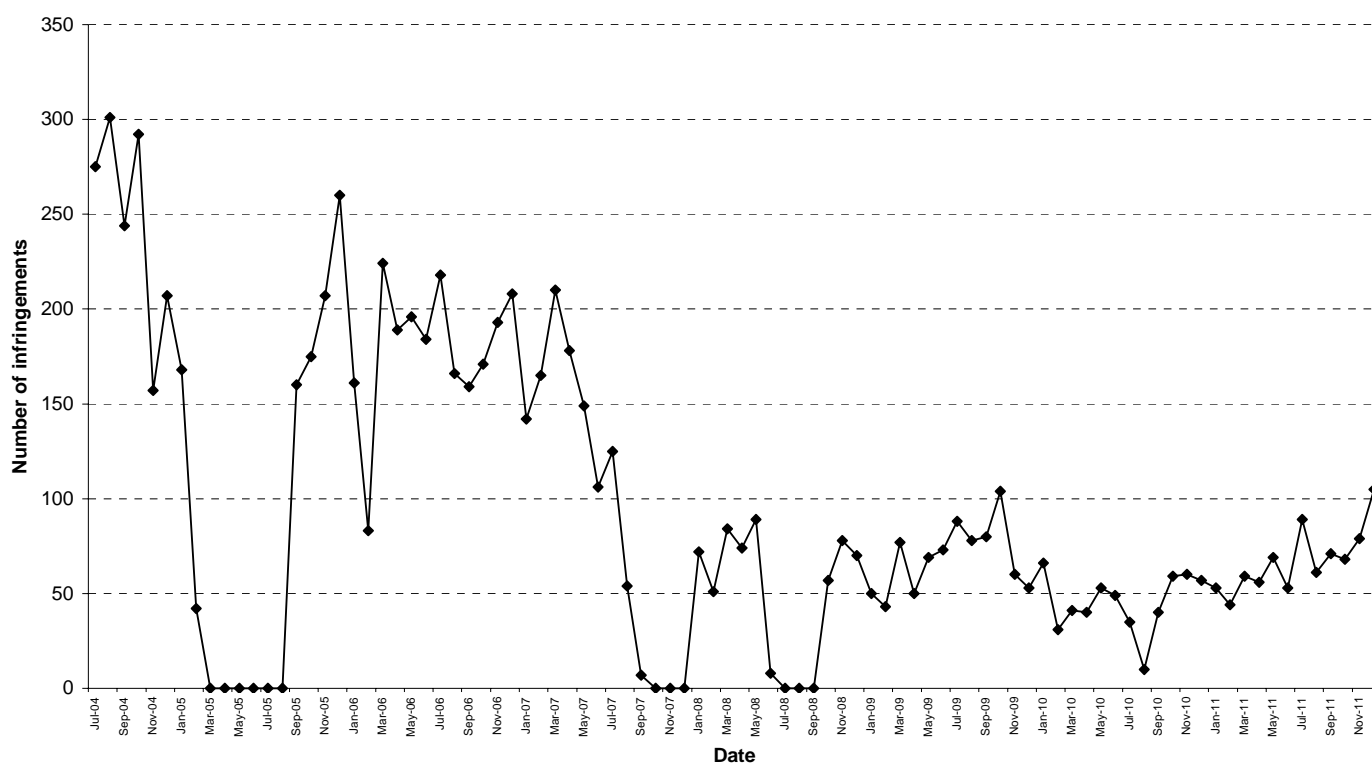
Five years before – Aug 1996 to Aug 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	15	15	29	1.71
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	11	11	15	1.254





## Infringements at fixed speed camera location

GREYSTANES ROAD GREYSTANES



### Summary

The fixed speed camera on Greystanes Road, Greystanes was installed in November 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 29 crashes resulting in zero fatalities and 15 injuries. In the five year period 2006 – 2011 there were 15 crashes resulting in zero fatalities and 11 injuries. When compared to the pre installation period, this is a 48 per cent reduction in the annual average number of crashes and a 27 per cent reduction in the annual average number of casualties. This has been a saving of \$456,000 in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Woodville Road, Guildford (school zone)

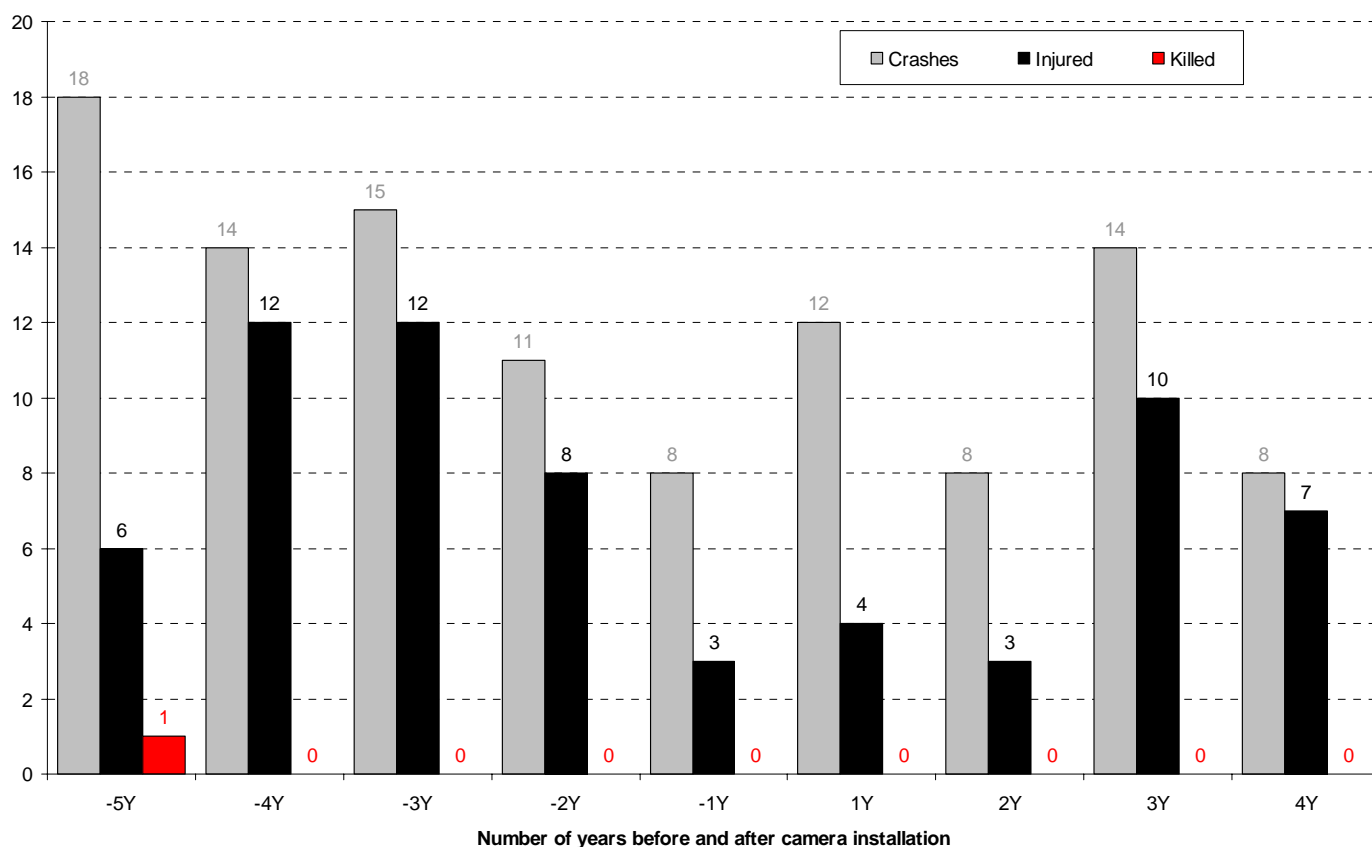
Location: Woodville Road, between Kenelda Avenue and Osgood Street, Guildford.

School zone: Granville South Public School.

<b>Length description</b>	220m north of camera to 280m south of cameras
<b>Total length (m)</b>	500 (Patch to Patch)
<b>Started Infringing</b>	16/05/2007

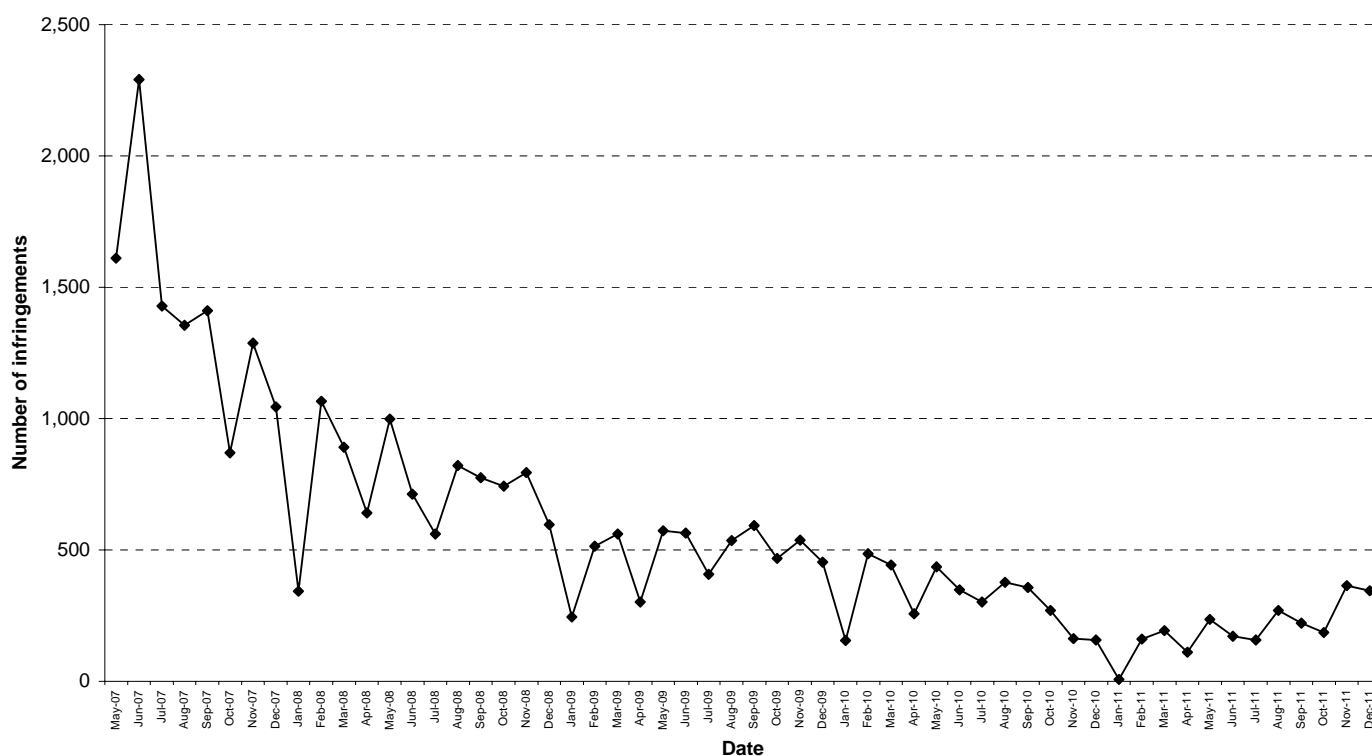
### Crashes at fixed speed camera location

Five years before – Feb 2002 to Feb 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	41	42	66	10.508
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	24	24	42	2.736



## Infringements at fixed speed camera location

WOODVILLE ROAD GUILDFORD



### Summary

The school zone fixed speed cameras on Woodville Road, Guildford were installed in May 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 66 crashes resulting in one fatality and 41 injuries. In the four year period 2007 – 2011 there were 42 crashes resulting in zero fatalities and 24 injuries. When compared to the pre installation period, this is a 20 per cent reduction in the annual average number of crashes and a 29 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$5.7 million in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

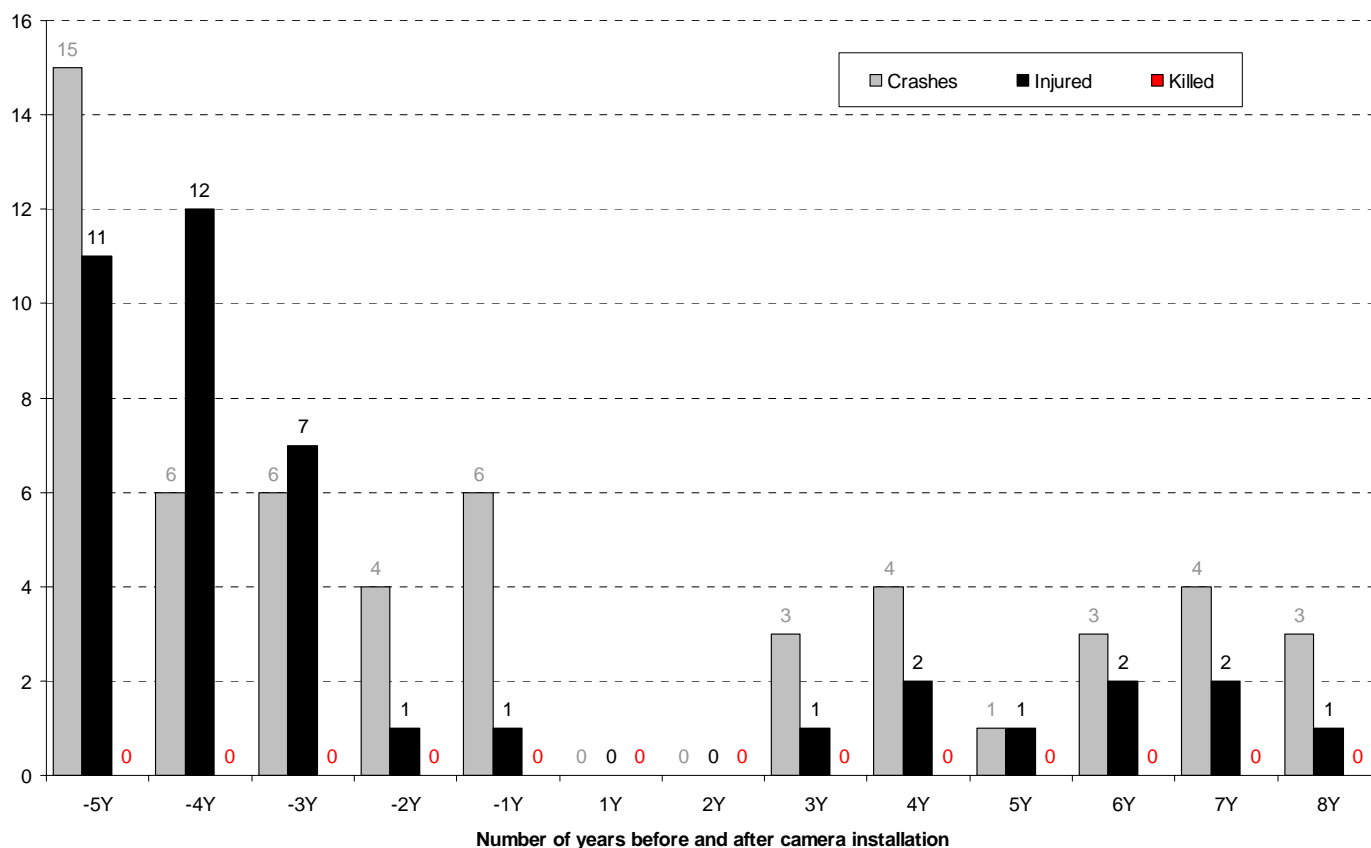
## Fixed digital speed camera – Southern Freeway, between Northern Distributor Overpass and Gipps Road Overpass, Gwynneville

Location: Southern Freeway, between Northern Distributor Overpass and Gipps Road Overpass (northbound), Gwynneville.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	07/08/2003

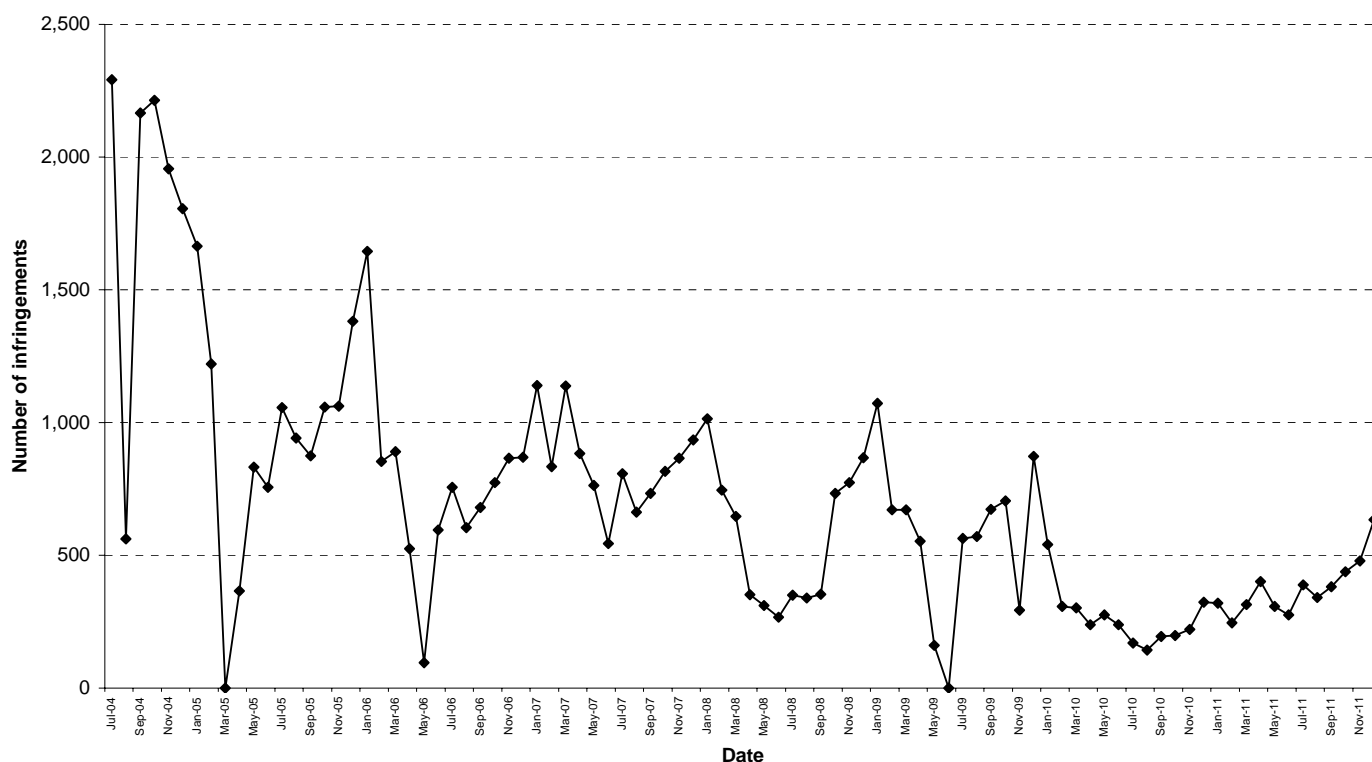
### Crashes at fixed speed camera location

Five years before – May 1998 to May 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	32	32	37	3,648
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	8	8	15	0.912



## Infringements at fixed speed camera location

F6 SOUTHERN FREEWAY GWYNNEVILLE NORTHBOUND



### Summary

The fixed speed camera on the Southern Freeway, Gwynneville (northbound) was installed in August 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 37 crashes resulting in zero fatalities and 32 injuries. In the five year period 2006 – 2011 there were 15 crashes resulting in zero fatalities and eight injuries. When compared to the pre installation period, this is a 59 per cent reduction in the annual average number of crashes and a 75 per cent reduction in the annual average number of casualties. This has been a saving of \$2.7 million in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

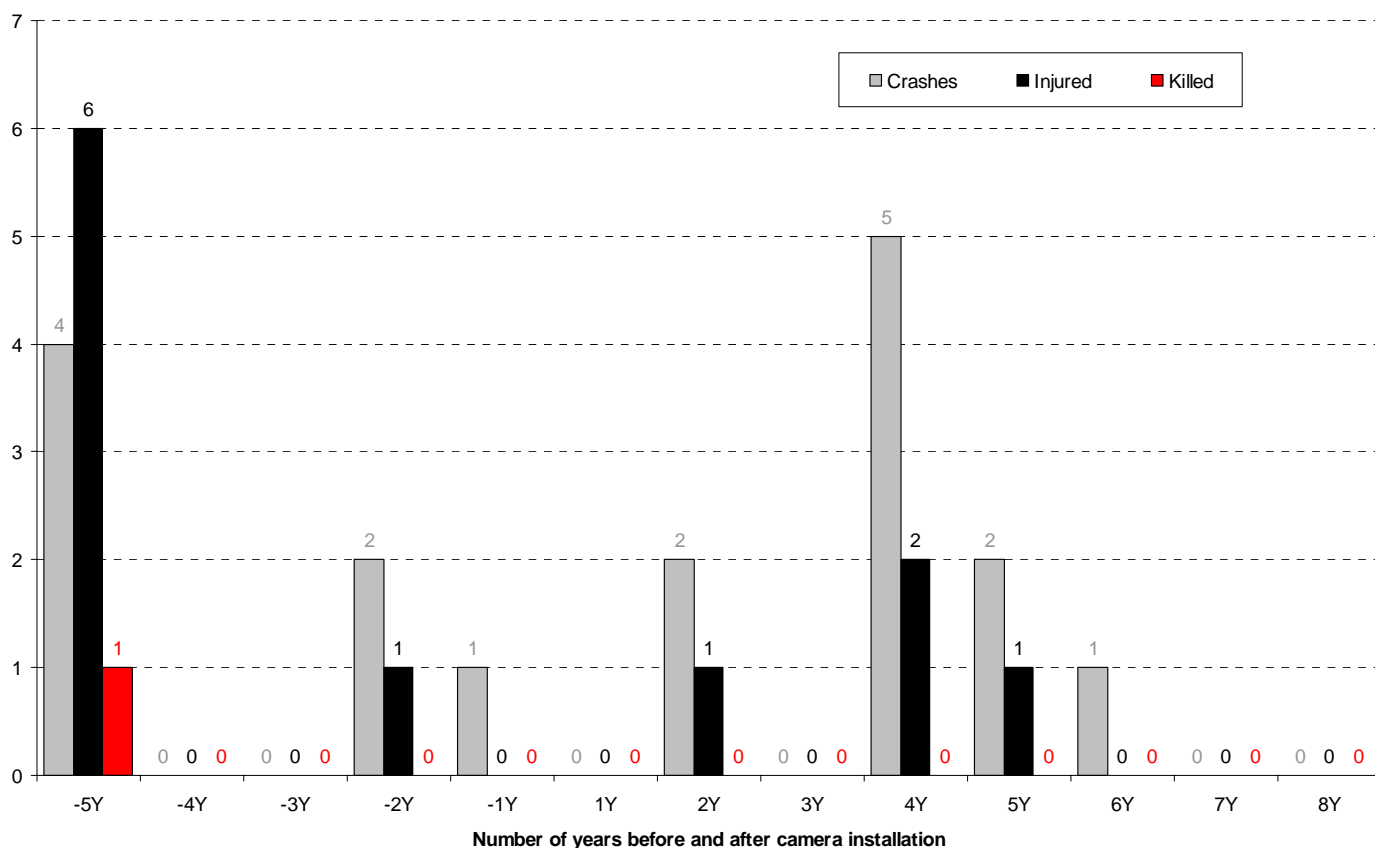
## Fixed digital speed camera – Southern Freeway, between University Avenue Overpass and Mount Ousley Road, Gwynneville

Location: Southern Freeway, University Avenue Overpass and Mount Ousley Road (southbound), Gwynneville.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	07/08/2003

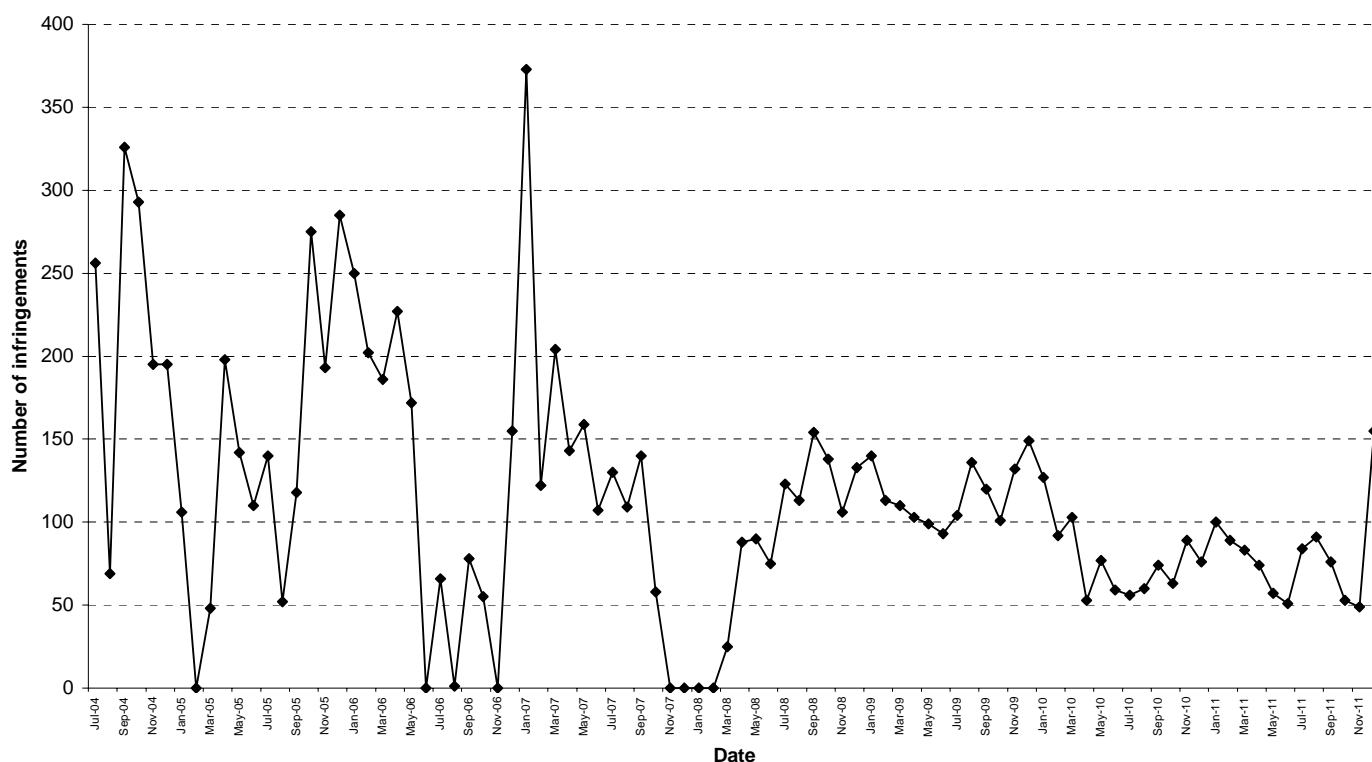
### Crashes at fixed speed camera location

Five years before – May 1998 to May 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	7	8	7	6.632
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	3	3	8	0.342



## Infringements at fixed speed camera location

F6 SOUTHERN FREEWAY GWYNNEVILLE SOUTHBOUND



### Summary

The fixed speed camera on the Southern Freeway, Gwynneville (southbound) was installed in August 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have slightly increased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 37 crashes resulting in zero fatalities and 32 injuries. In the five year period 2006 – 2011 there were 15 crashes resulting in zero fatalities and eight injuries. When compared to the pre installation period, this is a 14 per cent increase in the annual average number of crashes. However, over the same period there is a 63 per cent reduction in the annual average number of casualties. This has been a saving of \$6.3 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

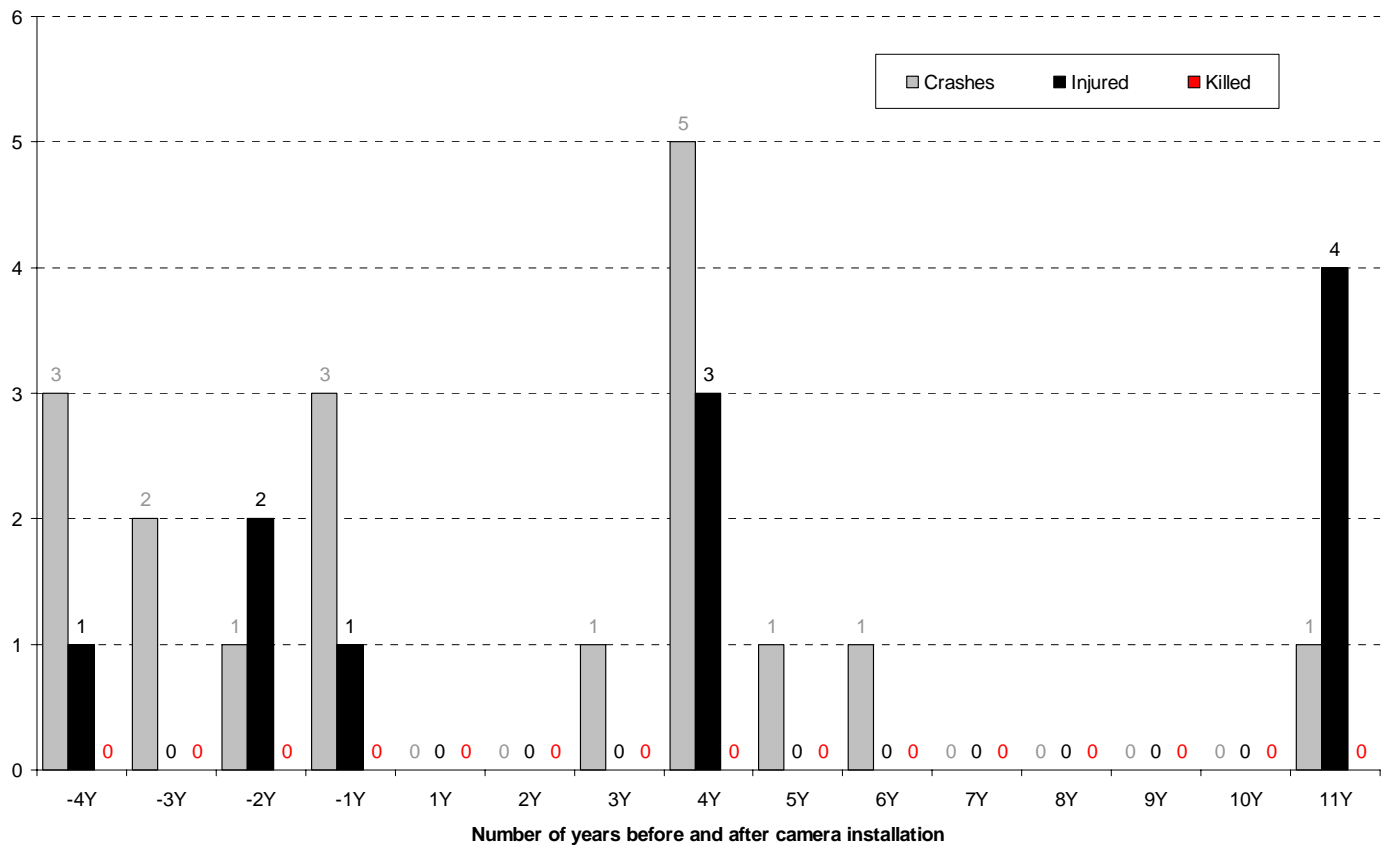
### Fixed digital speed camera – Great Western Highway, Hartley

Location: Great Western Highway, between Mid Hartley Road and Blackmans Creek Road, Hartley.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	06/12/2000

### Crashes at fixed speed camera location

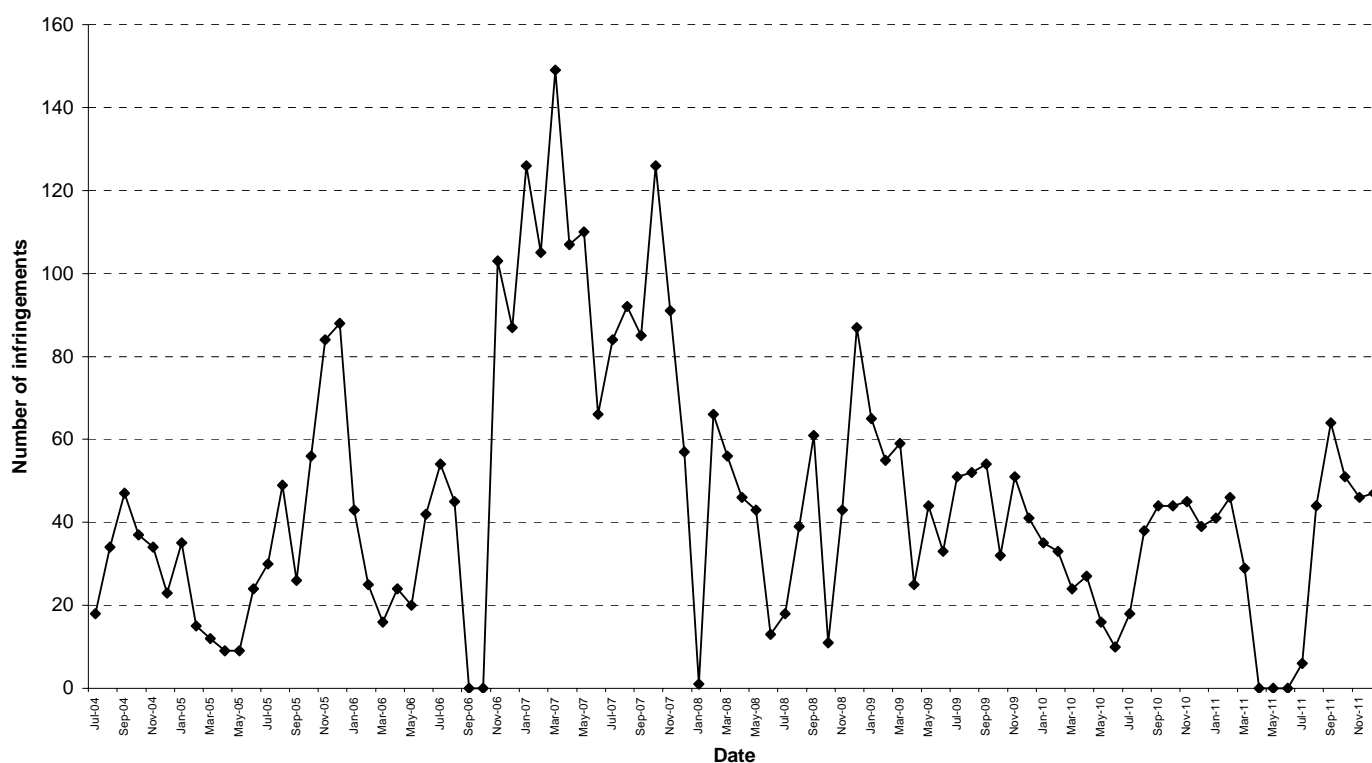
Four years before – Sep 1996 to Sep 2000 (no data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	4	4	9	0.456
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	4	4	1	0.456





## Infringements at fixed speed camera location

GREAT WESTERN HIGHWAY HARTLEY



### Summary

The fixed speed camera on the Great Western Highway, Hartley was installed in December 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were nine crashes resulting in zero fatalities and four injuries. When compared to the pre installation period, this is a 91 per cent reduction in the annual average number of crashes and a 20 per cent reduction in the annual average number of casualties. This has been a saving of \$114,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

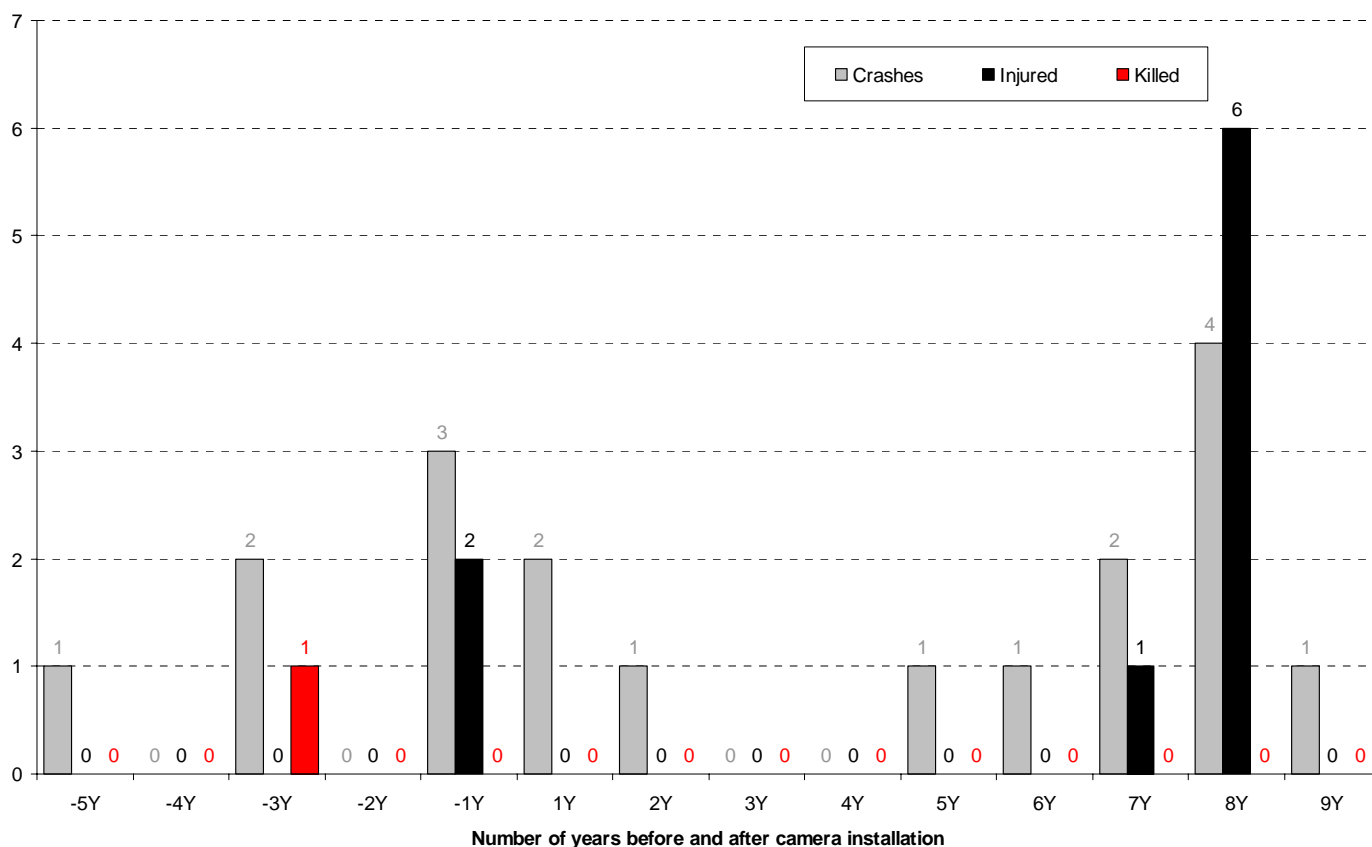
## Fixed digital speed camera – Pacific Highway, Hungry Head

Location: Pacific Highway, between Boundary Road and Ballards Road, Hungry Head.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	25/11/2002

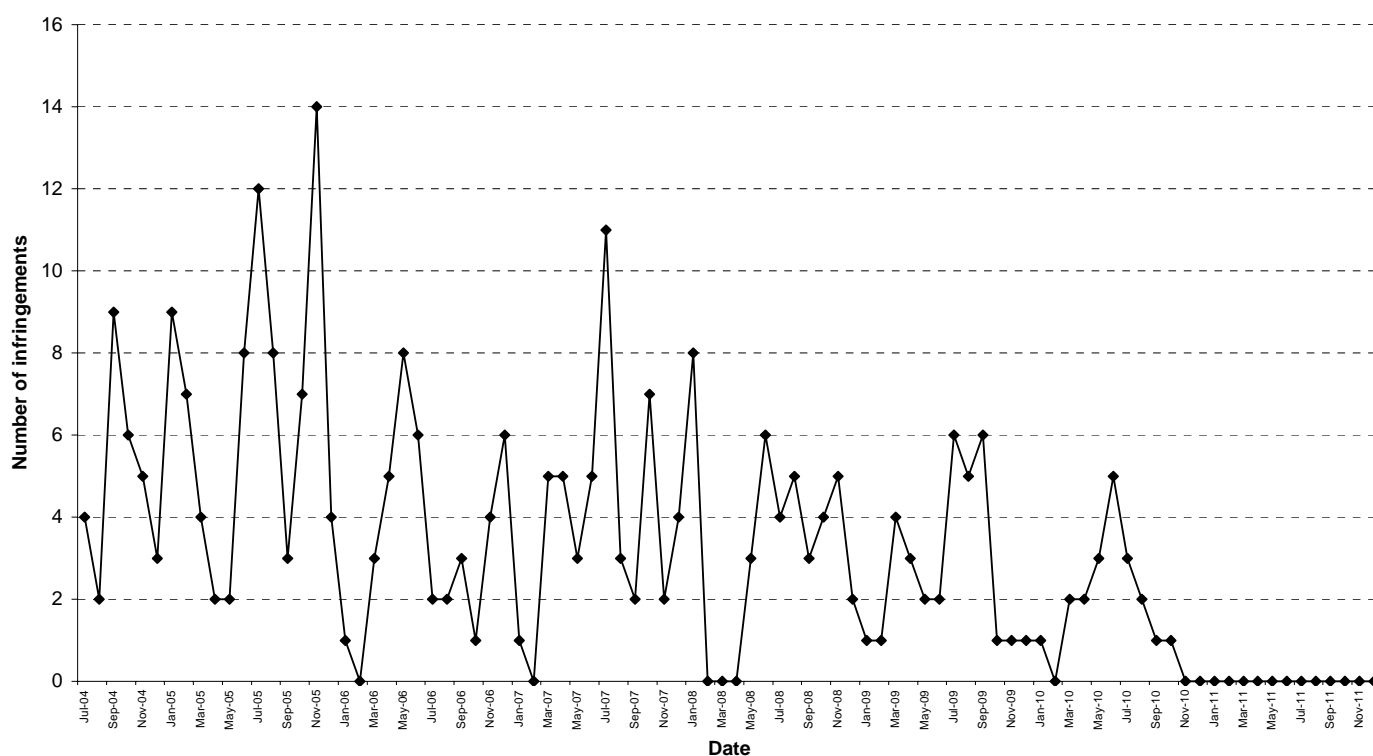
### Crashes at fixed speed camera location

Five years before – Aug 1997 to Aug 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	2	3	6	6.062
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	7	7	9	0.798



## Infringements at fixed speed camera location

### PACIFIC HIGHWAY HUNGRY HEAD



## Summary

The fixed speed camera on the Pacific Highway, Hungry Head was installed in November 2002. There is one camera installed at this location.

In the five years prior to the installation of the fixed speed camera at this location, there were six crashes resulting in one fatality and two injuries. In the five year period 2006 – 2011 there were nine crashes resulting in zero fatalities and seven injuries. The yearly number of crashes at this location has increased and the number of casualties increased, however fatalities have reduced from one to zero.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

Based on the assessment criteria the Pacific Highway, Hungry Head speed camera was identified for review. This speed camera is located on a section of the Pacific Highway which is yet to be upgraded. In 2010 there were a number of crashes on this section of the Pacific Highway, which prompted a review of this stretch of road. Point-to-point speed enforcement, enforcing heavy vehicle speeding, is being installed on a length of road that extends north from this fixed speed camera location.

The infringement graph details the trend in infringements at the location since July 2004. Infringement data before this date are not available. The data indicate that there is a very low infringement rate at this location, and roadworks have prevented the operation of the fixed speed camera during 2011.

Based on this additional information it is recommended that this camera location be reviewed.

## Fixed digital speed camera – Forest Road, Hurstville (school zone)

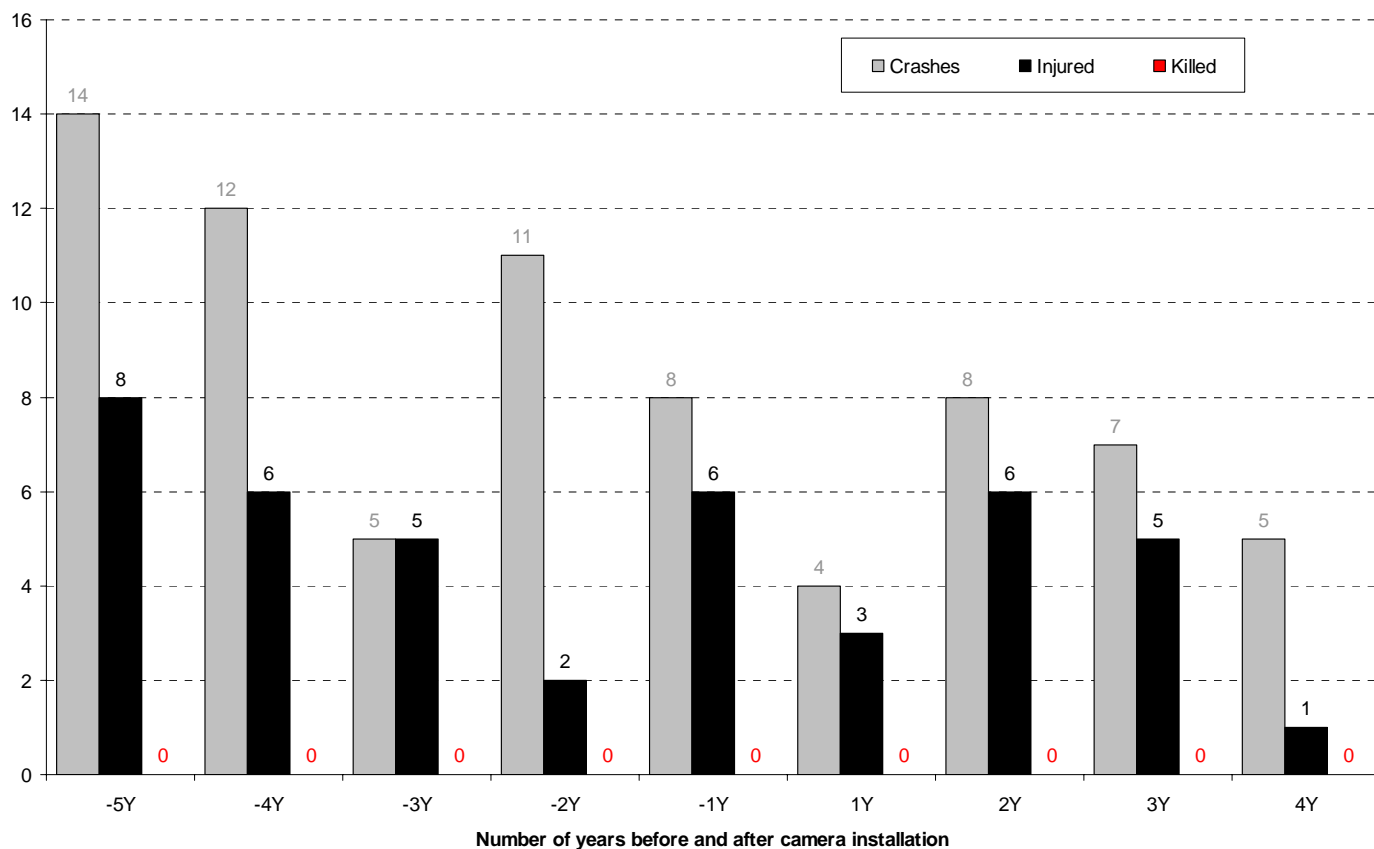
Location: Forest Road, between Lily Street and Cronulla Street, Hurstville.

School zone: Bethany College, Sydney Technical High School, Hurstville Boys High School and Hurstville Primary School.

<b>Length description</b>	190m south of camera to 520m north of camera
<b>Total length (m)</b>	710 (Patch to Patch)
<b>Started Infringing</b>	17/10/2007

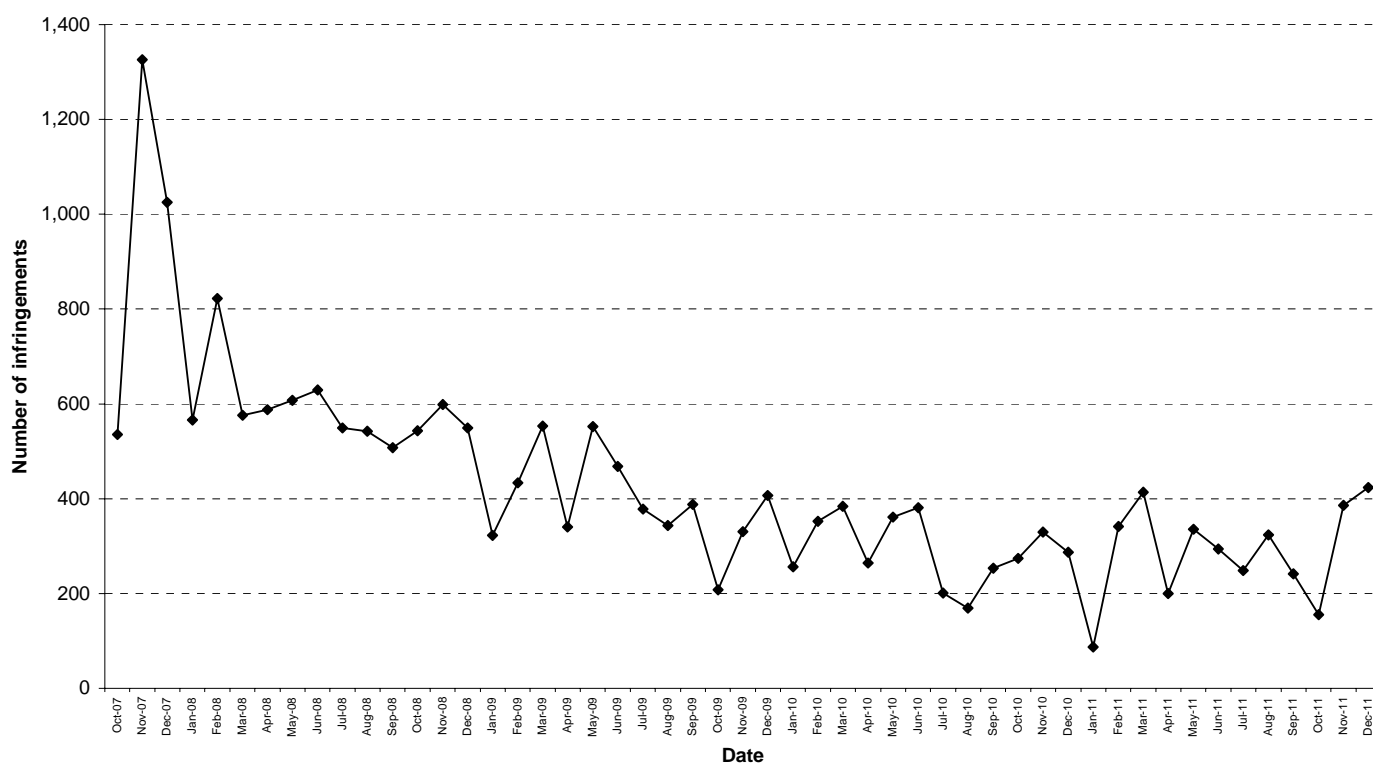
### Crashes at fixed speed camera location

Five years before – Jul 2002 to Jul 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	27	27	50	3.078
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	15	15	24	1.71



## Infringements at fixed speed camera location

FOREST ROAD HURSTVILLE



### Summary

The school zone fixed speed camera on Forest Road, Hurstville was installed in October 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 50 crashes resulting in zero fatalities and 27 injuries. In the four year period 2007 – 2011 there were 24 crashes resulting in zero fatalities and 15 injuries. When compared to the pre installation period, this is a 40 per cent reduction in the annual average number of crashes and a 31 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$752,400 in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Parker Street, Kingswood (school zone)

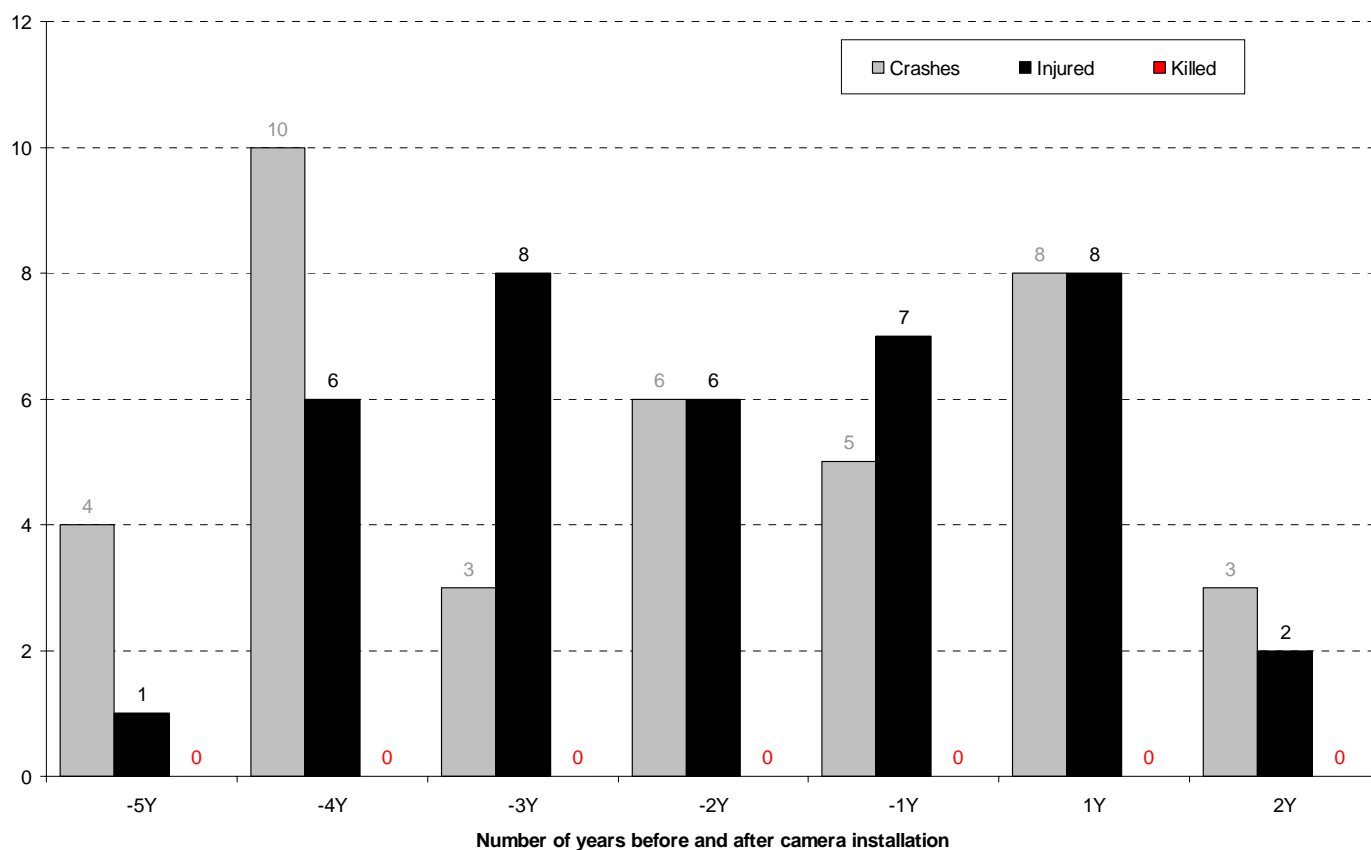
Location: Parker Street, between Copeland Street and Gascoigne Street, Kingswood.

School zone: St Dominics College

<b>Length description</b>	220m south of camera to 120m north of cameras
<b>Total length (m)</b>	340 (Patch to Patch)
<b>Started Infringing</b>	28/01/2009

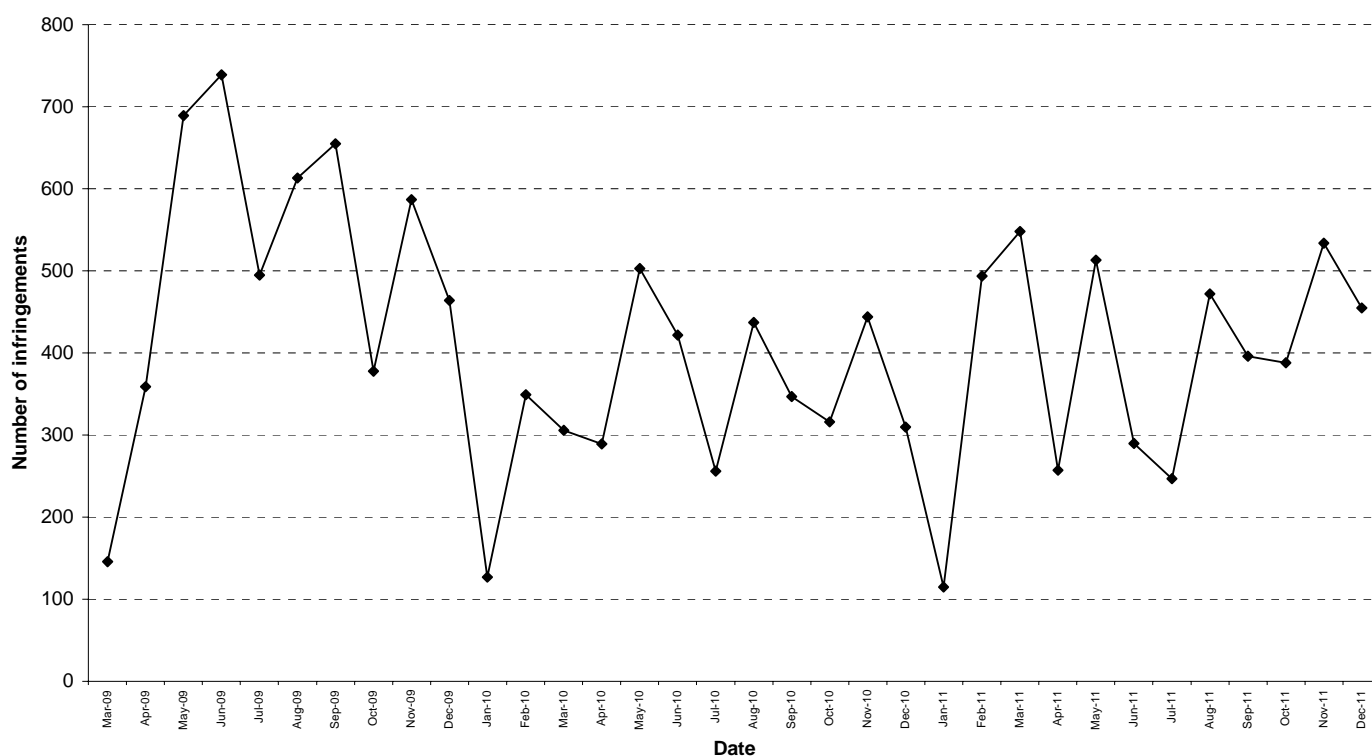
### Crashes at fixed speed camera location

Five years before – Oct 2003 to Oct 2008 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	28	28	28	3.192
After (most recent two year period) – 2009 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	10	10	11	1.14



## Infringements at fixed speed camera location

### PARKER STREET KINGSWOOD



### Summary

The school zone fixed speed cameras at Parker Street, Kingswood were installed in January 2009. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed cameras at this location, there were 28 crashes resulting in zero fatalities and 28 injuries. In the two year period 2009 – 2011 there were 11 crashes resulting in zero fatalities and one injuries. When compared to the pre installation period, this is a two per cent reduction in the annual average number of crashes and an 11 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$136,800 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at the location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Princes Highway, Kogarah (school zone)

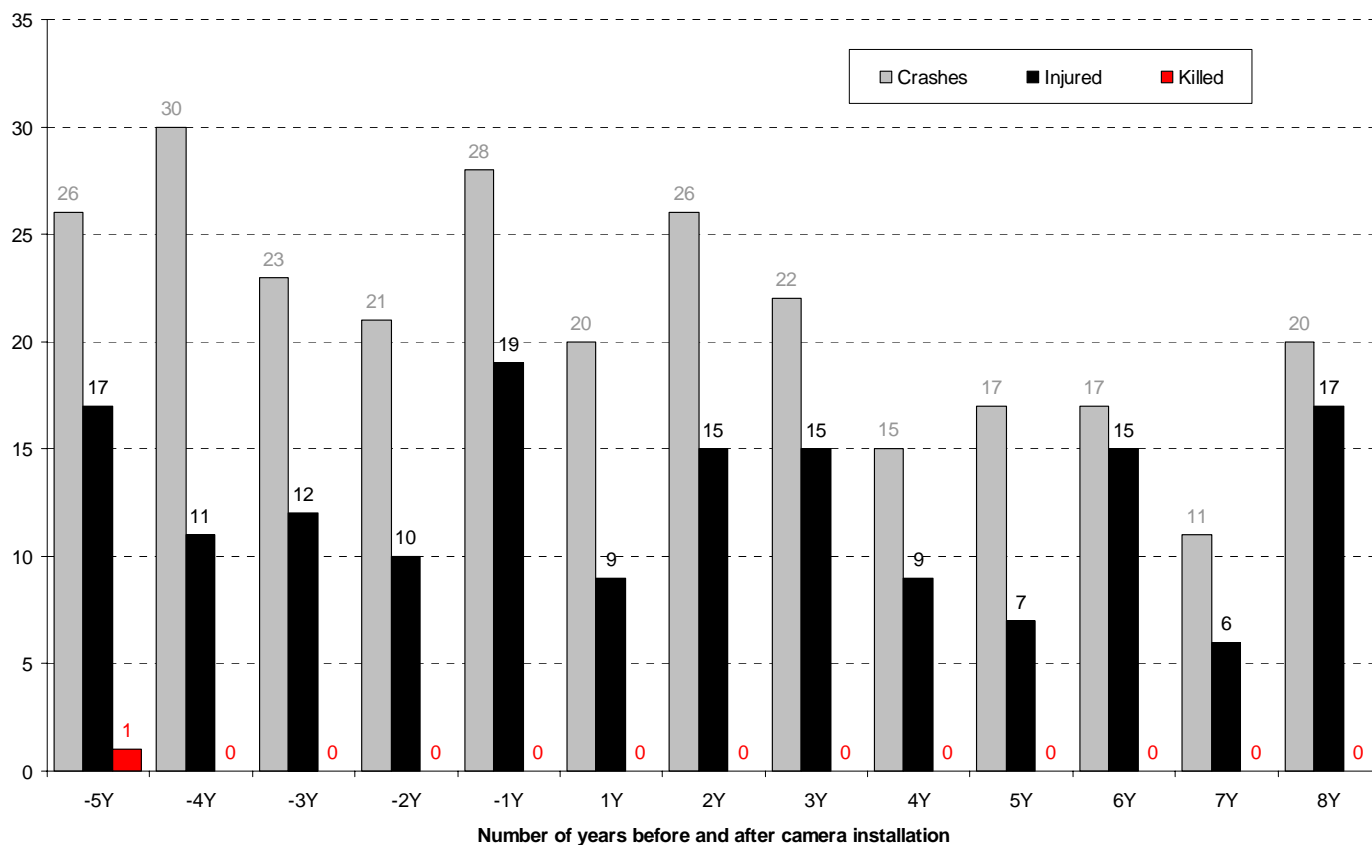
Location: Princes Highway, between Gray Street and President Avenue, Kogarah.

School zone: St Patricks Primary School, Bethany College, James Cook Boys High School, Moorefield Girls High School, Kogarah Public School.

<b>Length description</b>	190m south of camera to 800m north of cameras
<b>Total length (m)</b>	990m (Patch to Patch)
<b>Started Infringing</b>	15/07/2003

### Crashes at fixed speed camera location

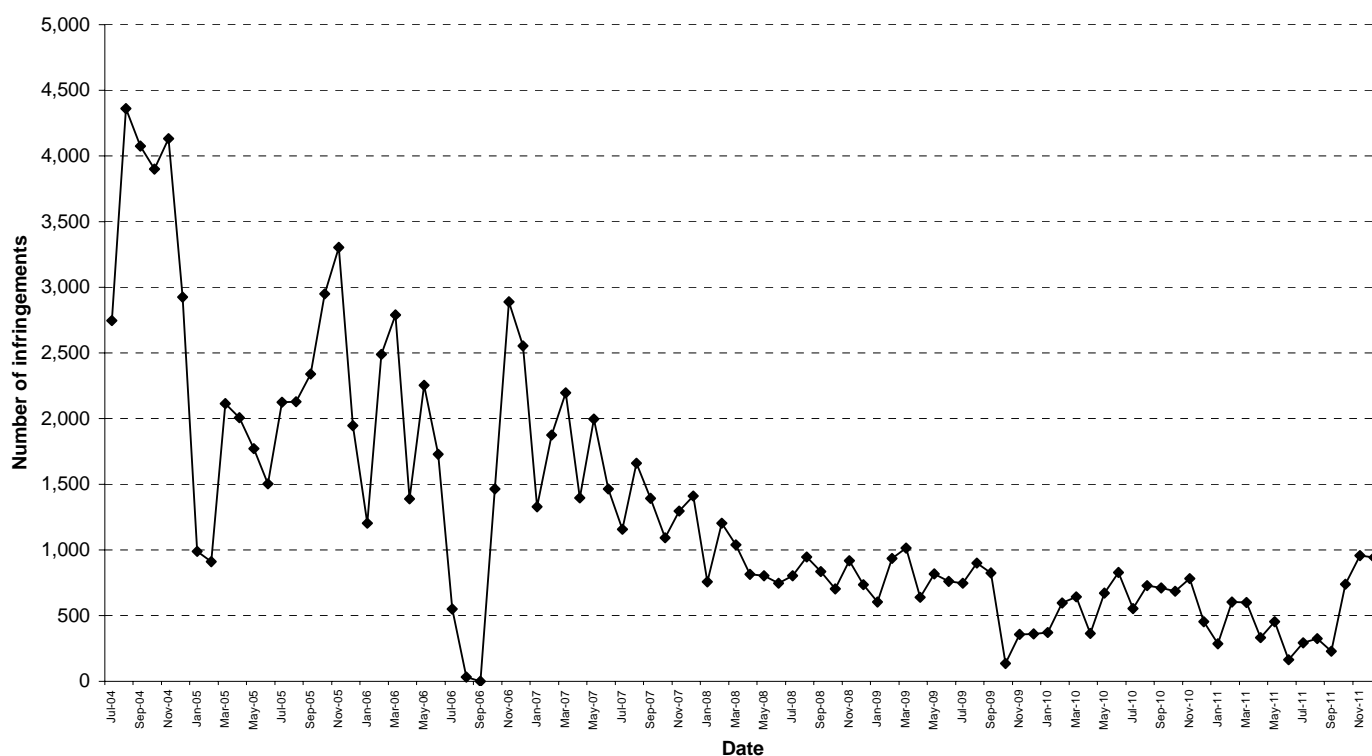
Five years before – Apr 1998 to Apr 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	69	70	128	13.7
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	54	54	80	6.156





## Infringements at fixed speed camera location

### PRINCES HIGHWAY KOGARAH



## Summary

The school zone fixed speed cameras on the Princes Highway, Kogarah were installed in July 2003. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 128 crashes resulting in one fatality and 69 injuries. In the five year period 2006 – 2011 there were 80 crashes resulting in zero fatalities and 54 injuries. When compared to the pre installation period, this is a 38 per cent reduction in the annual average number of crashes and a 23 per cent reduction in the annual average number of casualties. This has been a saving of \$7.5 million in costs to the community.

Provisional crash data show there were 10 crashes resulting in zero fatalities and nine injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued. These data show there has been a reduction in speeding behaviour at this location over time.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

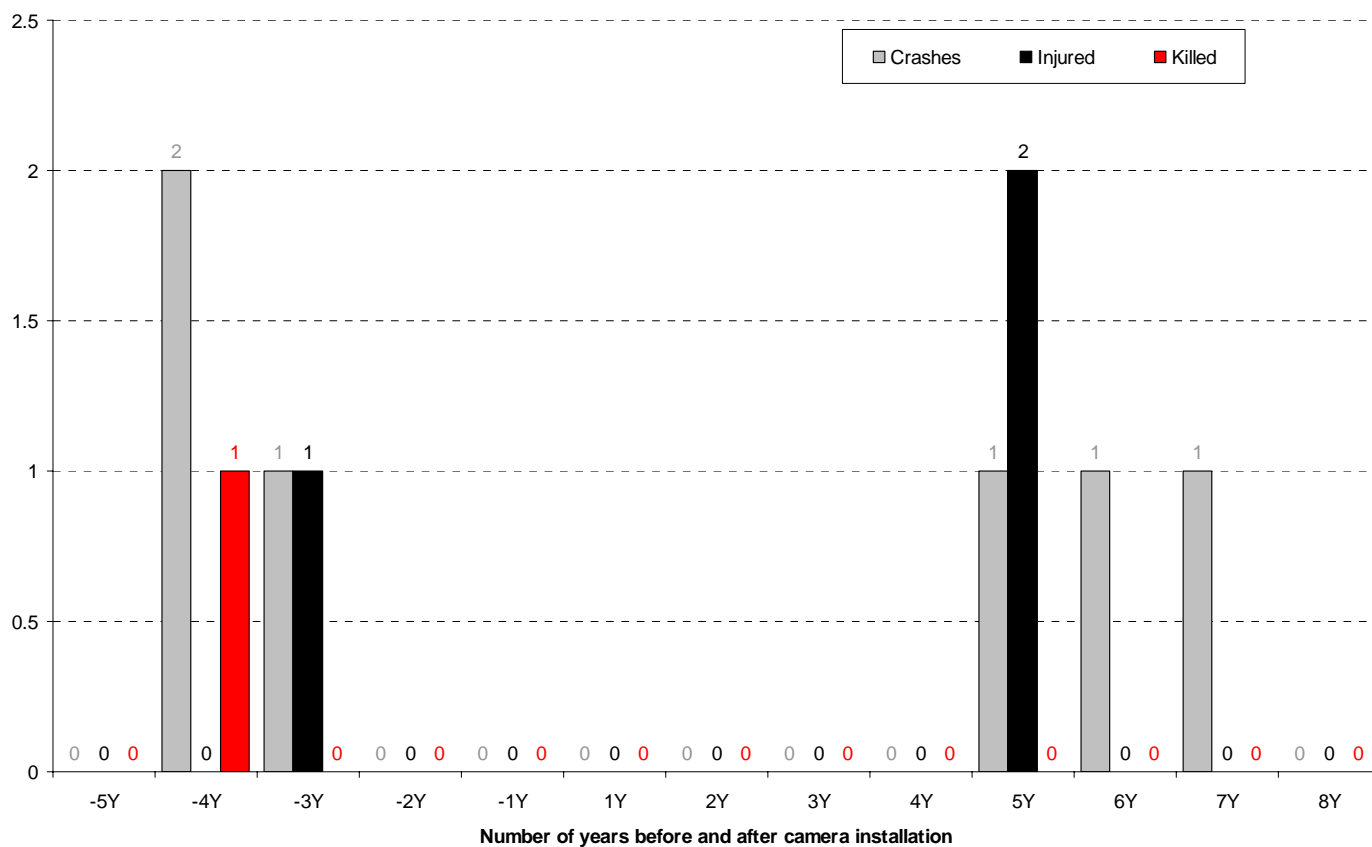
## Fixed digital speed camera – New England Highway, Kootingal

Location: New England Highway, between Gill Street and Yarrol Road, Kootingal.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	09/04/2003

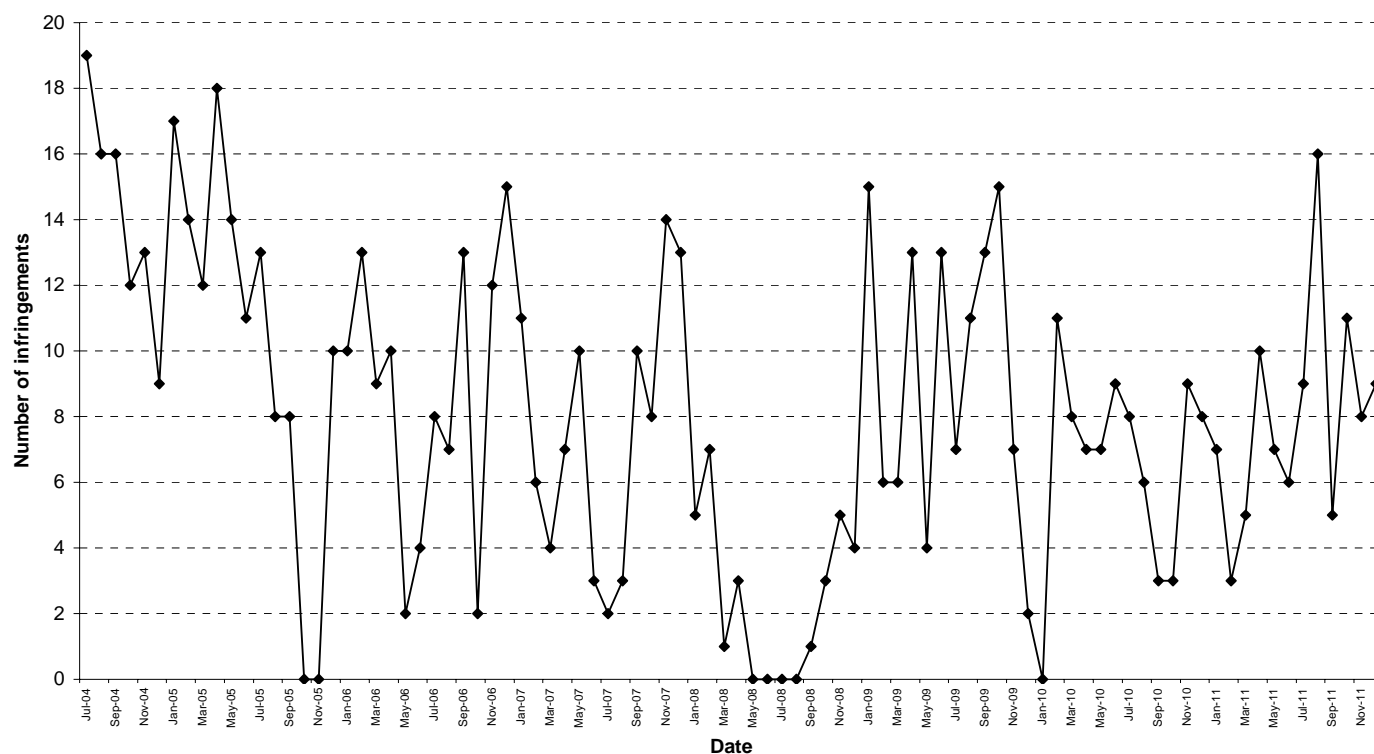
### Crashes at fixed speed camera location

Five years before – Jan 1998 to Jan 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	1	2	3	5.948
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	2	2	3	0.228



## Infringements at fixed speed camera location

### NEW ENGLAND HIGHWAY KOOTINGAL



## Summary

The fixed speed camera on the New England Highway, Kootingal was installed in April 2003. There is one camera installed at this location.

In the five years prior to the installation of the fixed speed camera at this location, there were three crashes resulting in one fatality and one injury. In the five year period 2006 – 2011 there were three crashes resulting in zero fatalities and two injuries.

Provisional crash data show there was one crash resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

Based on the assessment criteria the New England Highway, Kootingal speed camera was identified for review. The total number of crashes and casualties at this speed camera location is low and the number of crashes and casualties have remained constant when comparing the before period and the most recent five years. Prior to the camera being installed there was one fatality, there were no fatalities in the most recent five year period.

The infringement graph details the trend in infringements at the location since the July 2004. Infringement data before this date are not available. The data indicate that there is a low level of speeding at this location.

Based on this additional information, it is recommended that this camera location be reviewed.

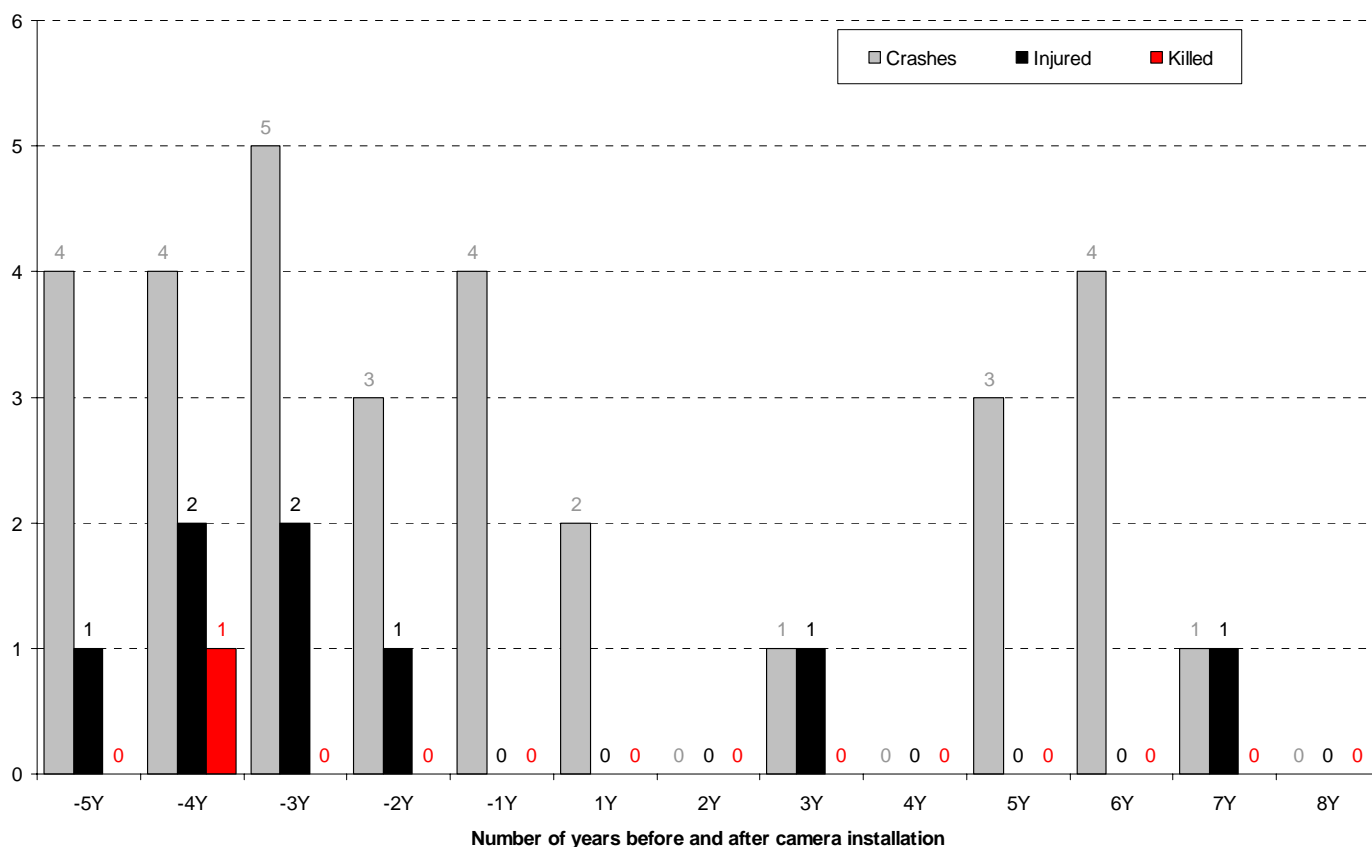
## Fixed digital speed camera – Pacific Highway, Korora

Location: Pacific Highway, between Bruxner Park Road and Korora Basin Road, Korora.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	20/02/2003

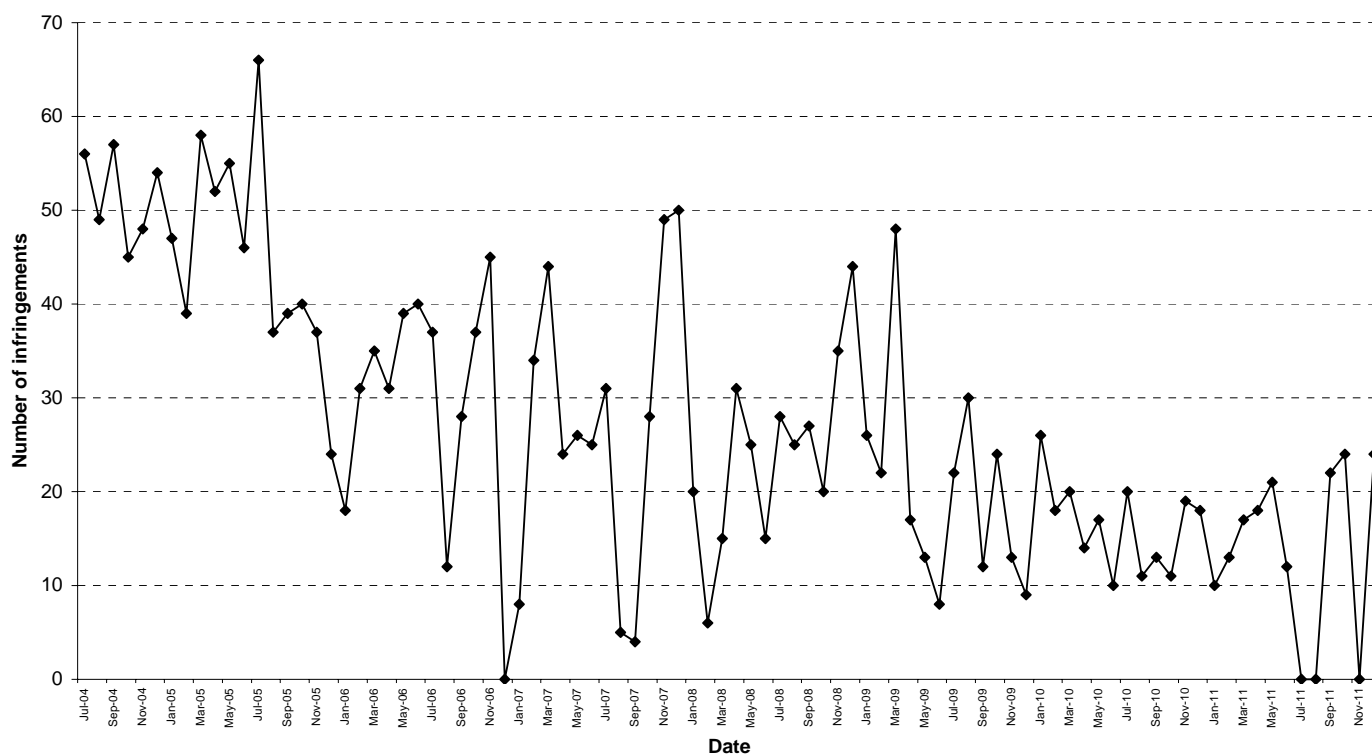
### Crashes at fixed speed camera location

Five years before – Nov 1997 to Nov 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
1	6	7	20	6.518
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	1	1	8	0.114



## Infringements at fixed speed camera location

### PACIFIC HIGHWAY KORORA



## Summary

The fixed speed camera on the Pacific Highway, Korora was installed in February 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 20 crashes resulting in one fatality and six injuries. In the five year period 2006 – 2011 there were eight crashes resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 60 per cent reduction in the annual average number of crashes and a 86 per cent reduction in the annual average number of casualties. This has been a saving of \$6.4 million in costs to the community.

Provisional crash data show there were 2 crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

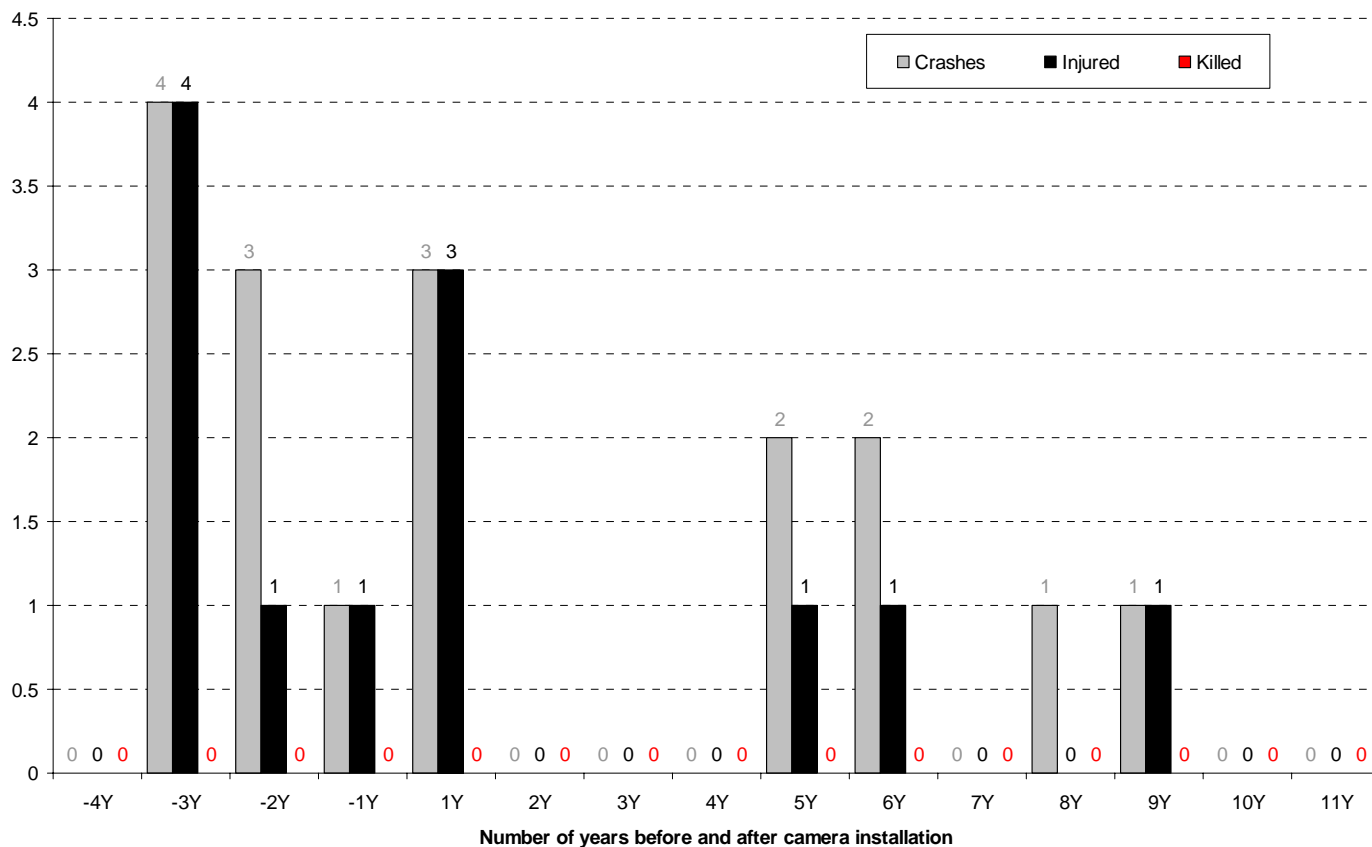
## Fixed digital speed camera – Bells Line of Road, Kurrajong

Location: Bells Line of Road, between Queen Street and Bellbird Avenue, Kurrajong.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	22/05/2000

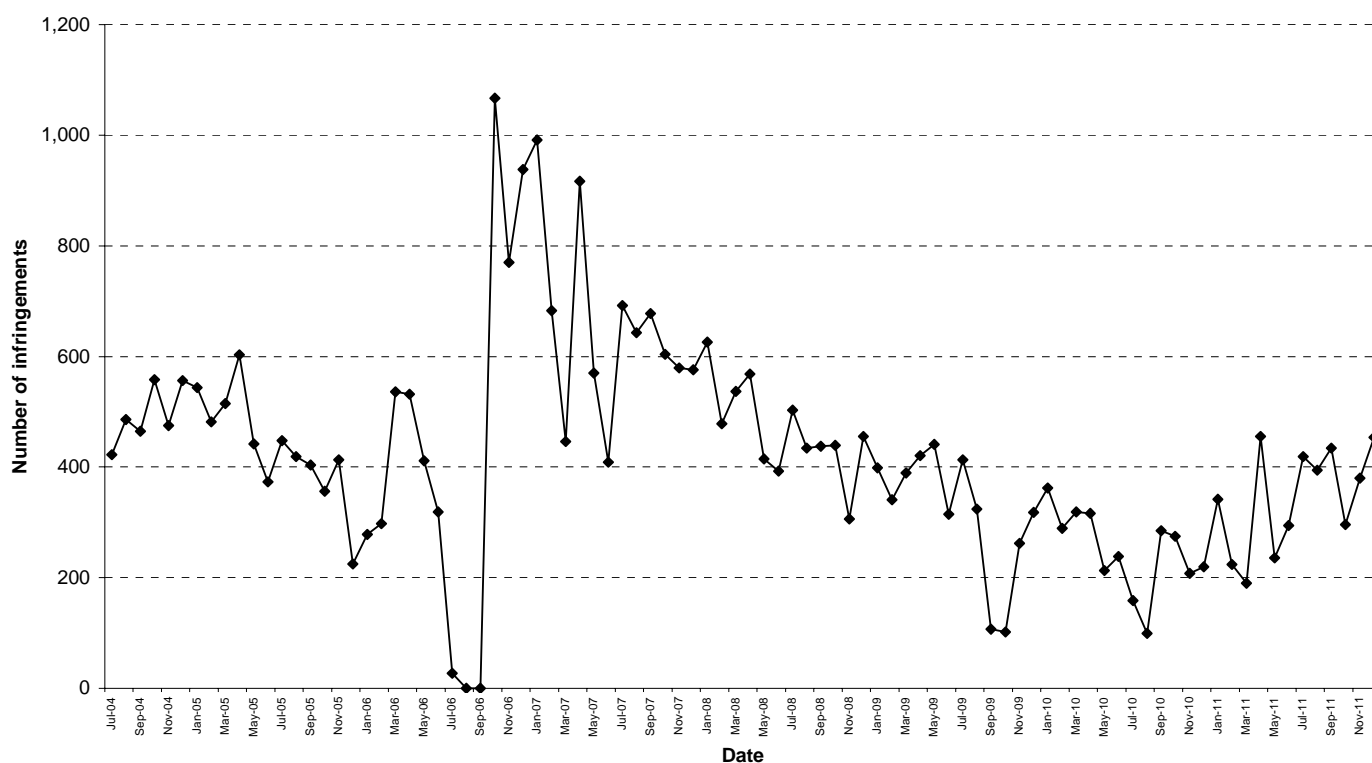
### Crashes at fixed speed camera location

Four years before – Feb 2006 to Feb 2000 (no data available for 1995) - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	6	6	8	0.684
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost
0	1	1	2	0.114



## Infringements at fixed speed camera location

BELLS LINE OF ROAD KURRAJONG



### Summary

The fixed speed camera on the Bells Line of Road, Kurrajong was installed in May 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were eight crashes resulting in zero fatalities and six injuries. In the five year period 2006 – 2011 there were two crashes resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 80 per cent reduction in the annual average number of crashes and a 87 per cent reduction in the annual average number of casualties. This has been a saving of \$741,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

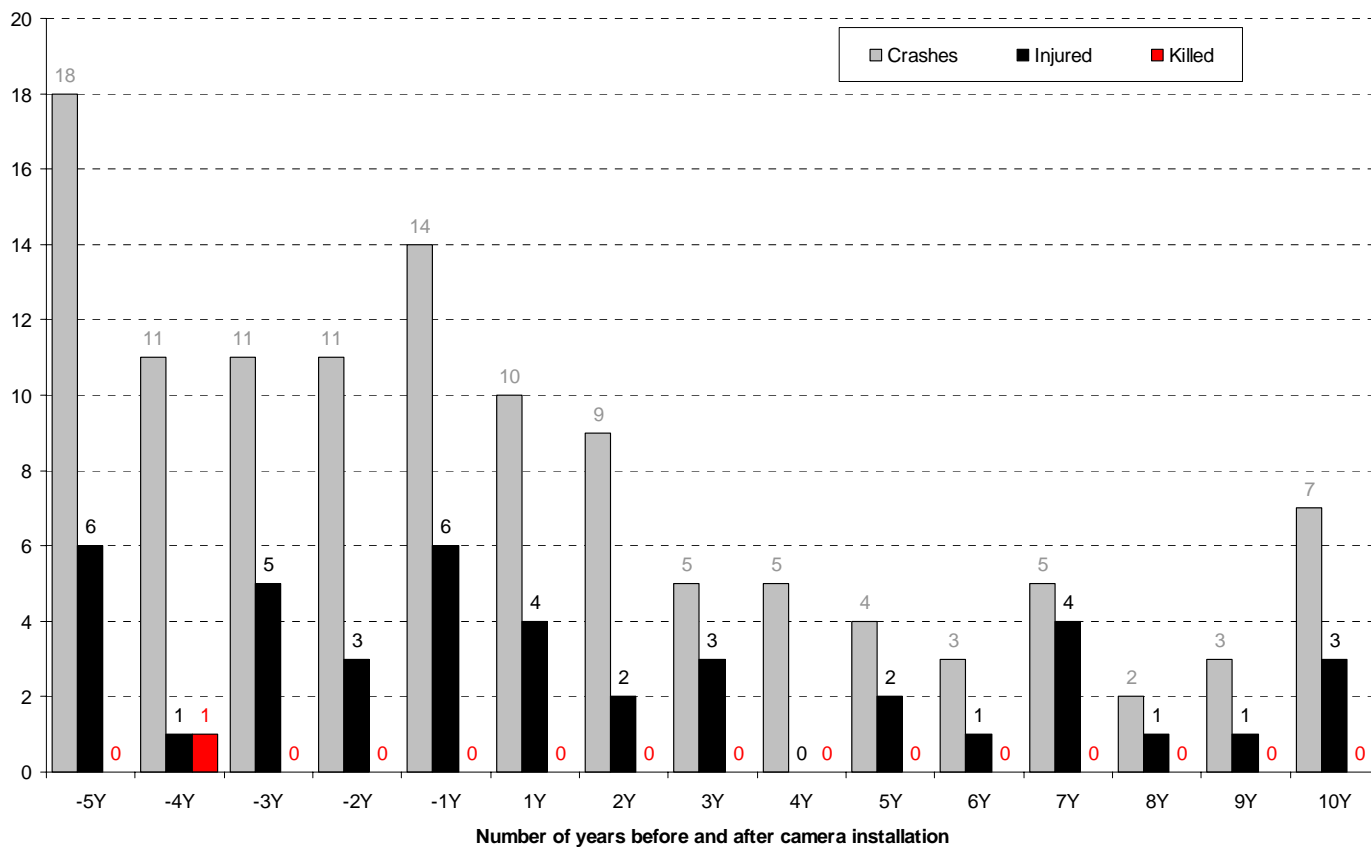
### Fixed digital speed camera – Centennial Avenue, Lane Cove

Location: Centennial Avenue, between Gentle Street and Figtree Street, Lane Cove.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	10/12/2001

### Crashes at fixed speed camera location

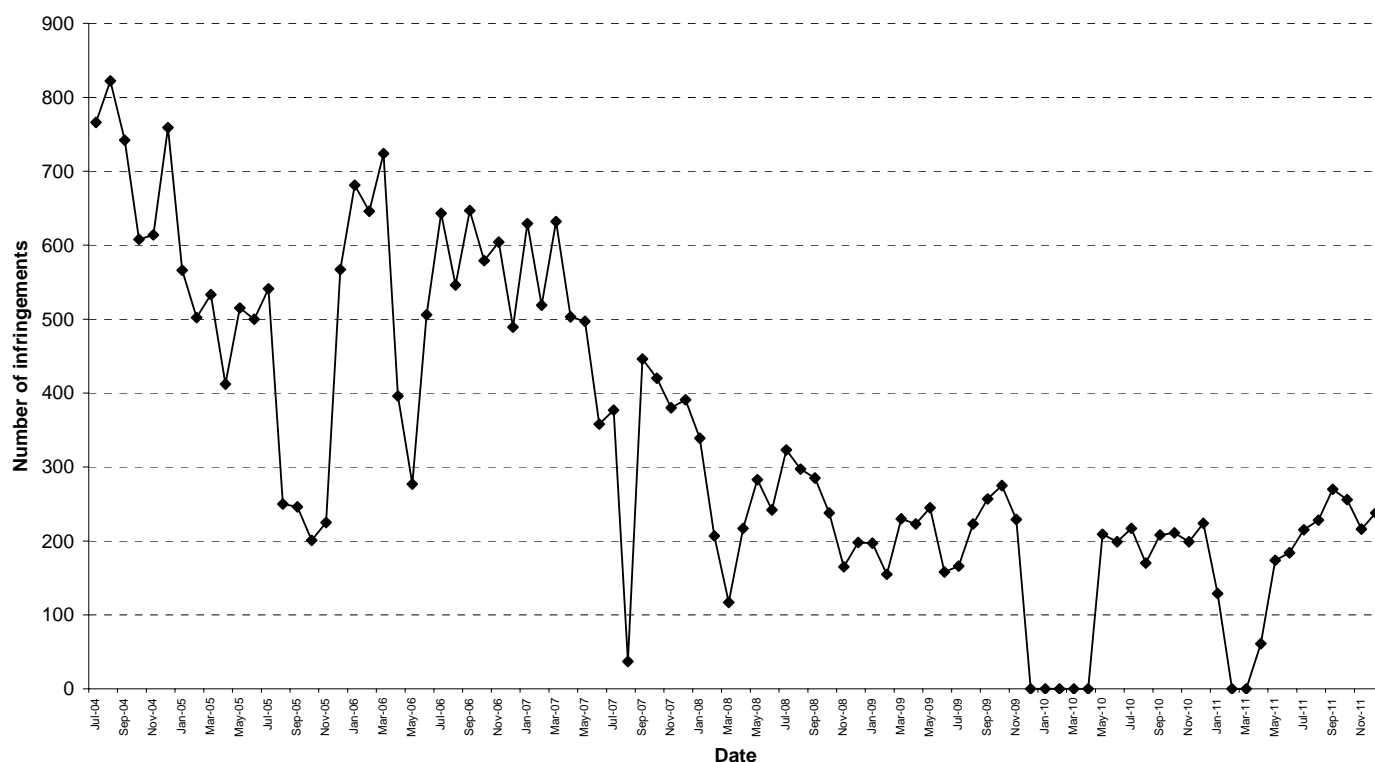
Five years before – September 1996 – September 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	21	22	65	8.228
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	10	10	20	1.14





## Infringements at fixed speed camera location

CENTENNIAL AVENUE LANE COVE



### Summary

The fixed speed camera on Centennial Avenue, Lane Cove was installed in December 2001. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 65 crashes resulting in one fatality and 21 injuries. In the five year period 2006 – 2011 there were 20 crashes at this location resulting in zero fatalities and 10 injuries. When compared to the pre installation period, this is a 69 per cent reduction in the annual average number of crashes and a 55 per cent reduction in the annual average number of casualties. This has been a saving of \$7 million in costs to the community.

Provisional crash data show there were eight crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Lane Cove Tunnel, Lane Cove Tunnel (high risk location).

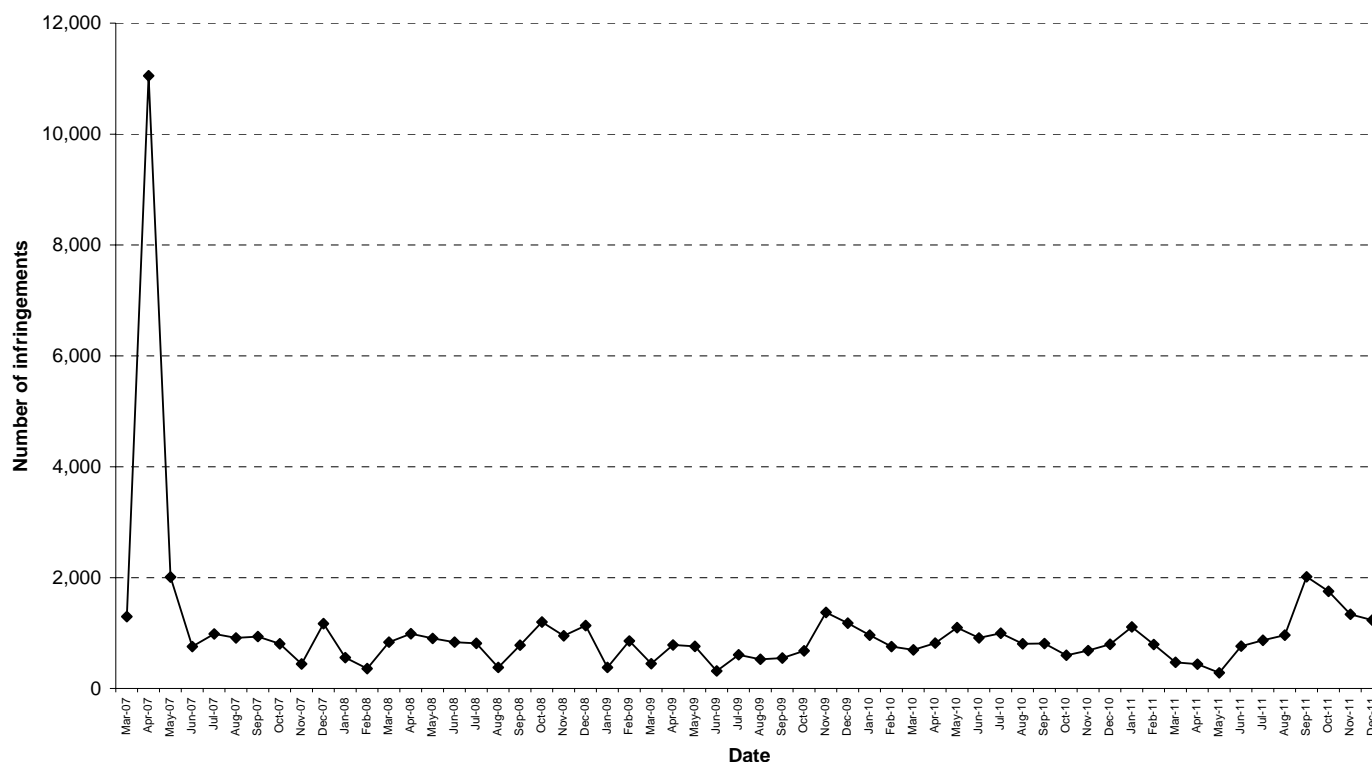
<b>Length description</b>	2650m east of camera to 960m west of camera (Eastbound)
	2665m east of camera to 950m west of camera (Westbound)
<b>Total length (m)</b>	3610 (Eastbound)
	3615 (Westbound)
<b>Started Infringing</b>	25/03/2007

## High risk fixed speed camera location – Provisional crash data calendar year 2011

Eastbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	0	1	1	0	0	0
Westbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	0	1	1	0	0	0

## Infringements at fixed speed camera location

LANE COVE TUNNEL LANE COVE



## Summary

The fixed speed cameras in the Lane Cove Tunnel were installed in March 2007. There are two speed cameras installed at this location.

This location is appropriate for fixed speed camera enforcement as it is a high risk location that is difficult for the NSW Police Force to enforce using traditional methods. Provisional crash data show there were two crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

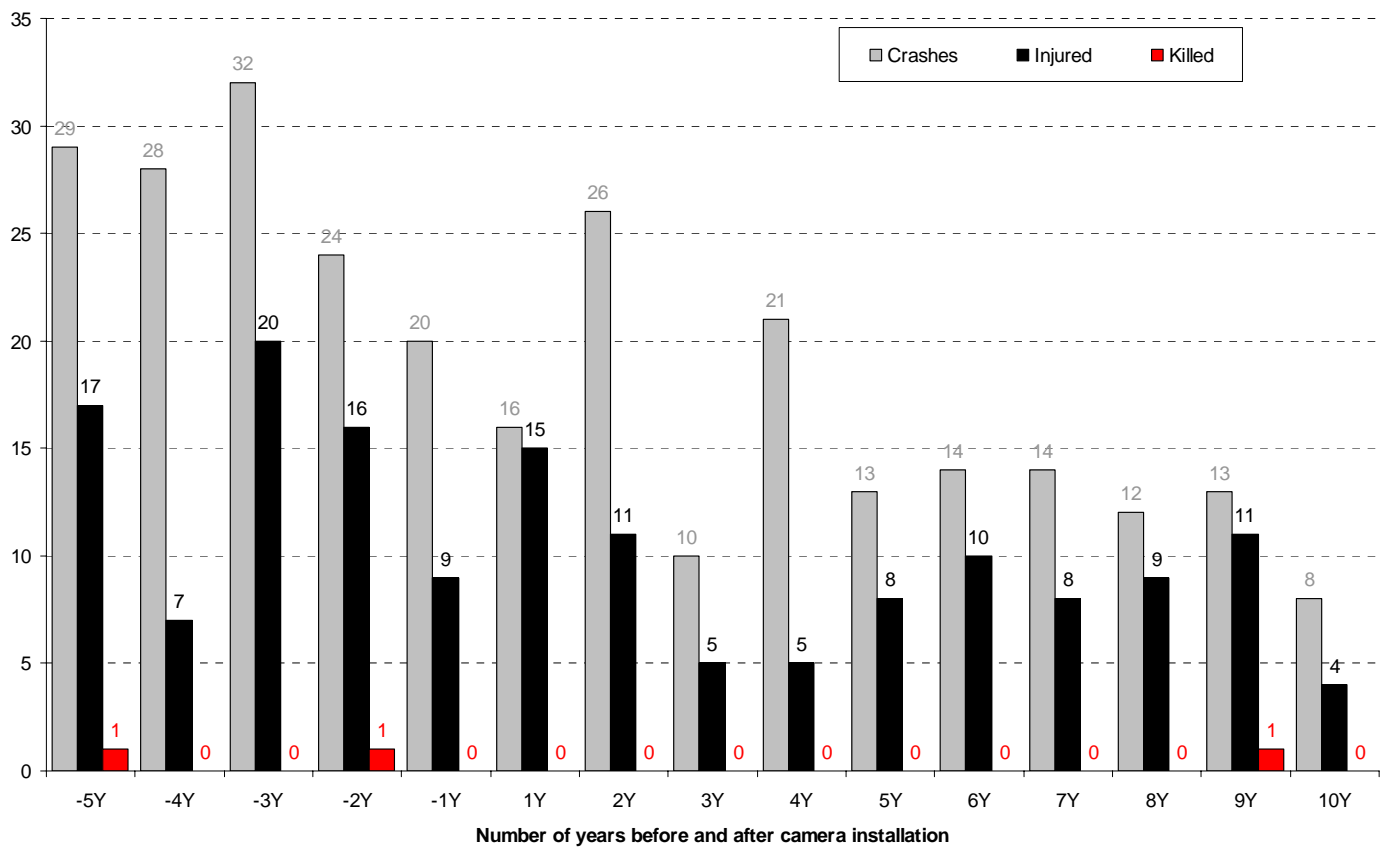
### Fixed digital speed camera – Hume Highway, Lansvale

Location: Hume Highway, between Henry Lawson Drive and Knight Street, Lansvale.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	05/12/2001

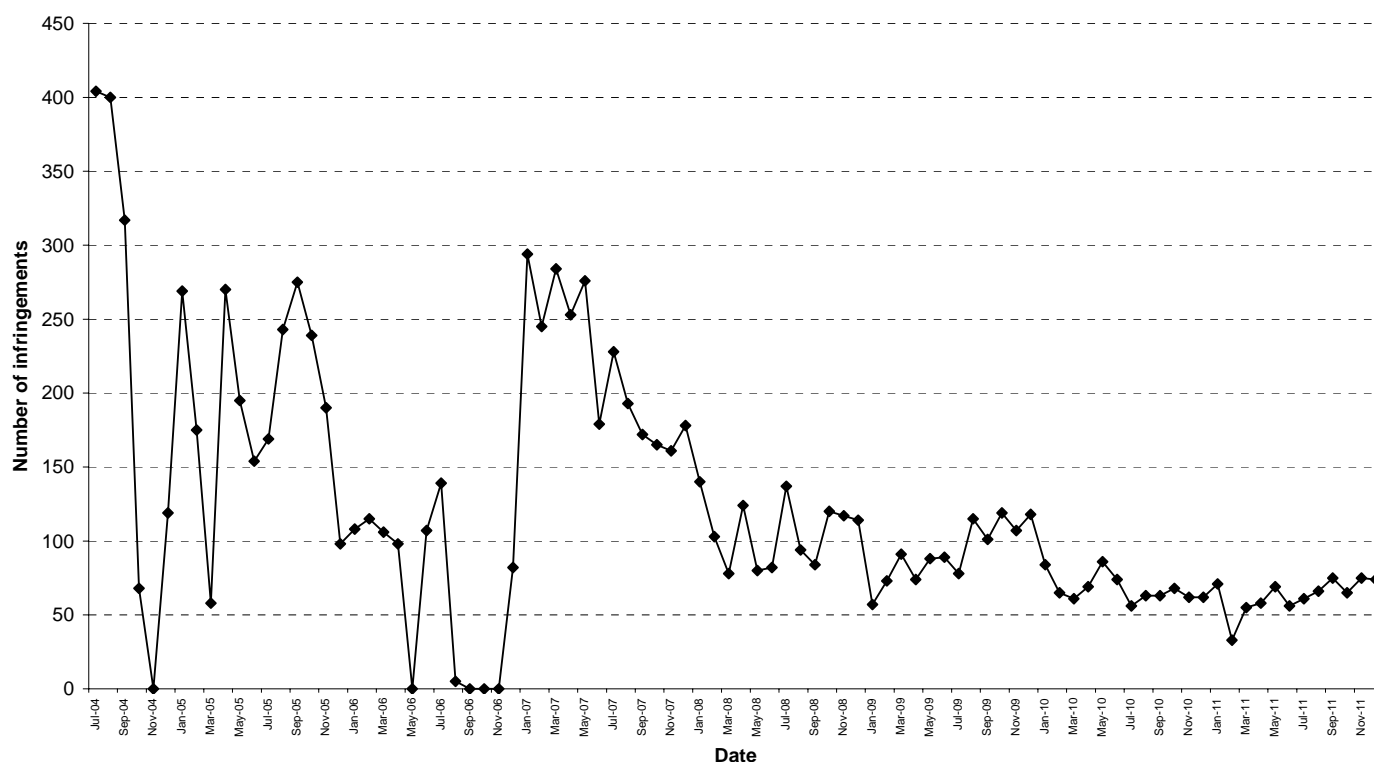
### Crashes at fixed speed camera location

Five years before – September 1996 – September 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	69	71	133	19.534
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	42	43	61	10.622



## Infringements at fixed speed camera location

HUME HIGHWAY LANSVALE



### Summary

The fixed speed camera on the Hume Highway, Lansvale was installed in December 2001. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 133 crashes resulting in two fatalities and 69 injuries. In the five year period 2006 – 2011 there were 61 crashes at this location resulting in one fatality and 42 injuries. When compared to the pre installation period, this is a 54 per cent reduction in the annual average number of crashes and a 39 per cent reduction in the annual average number of casualties. This has been a saving of \$8.912 million in costs to the community.

Provisional crash data show there were eight crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

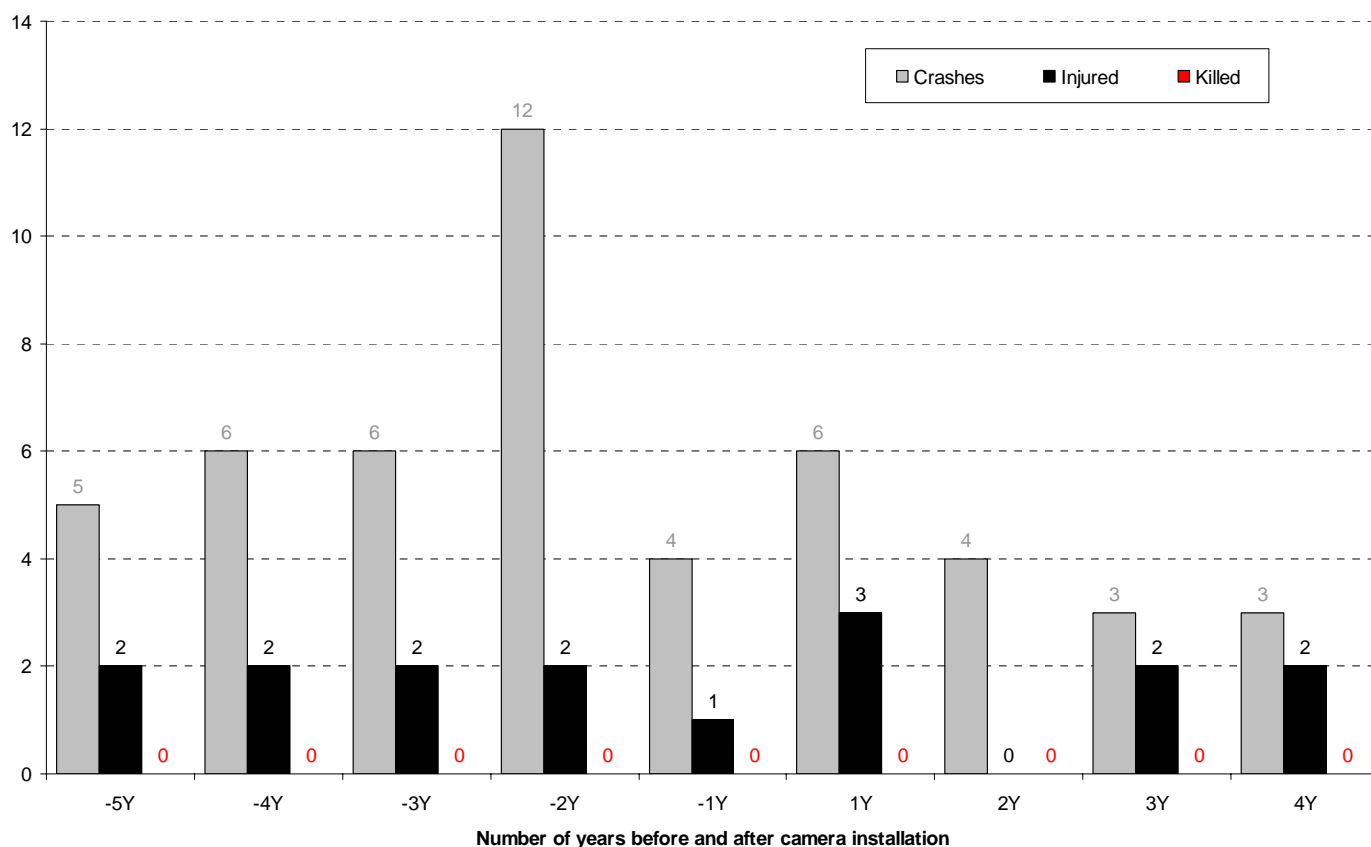
## Fixed digital speed camera – Pacific Highway, Lindfield (school zone)

Location: Pacific Highway, between Eton Road and Gladstone Parade, Lindfield.  
 School zone: Lindfield Primary School.

<b>Length description</b>	190m south of camera to 290m north of camera
<b>Total length (m)</b>	480 (Patch to Patch)
<b>Started Infringing</b>	9/07/2007

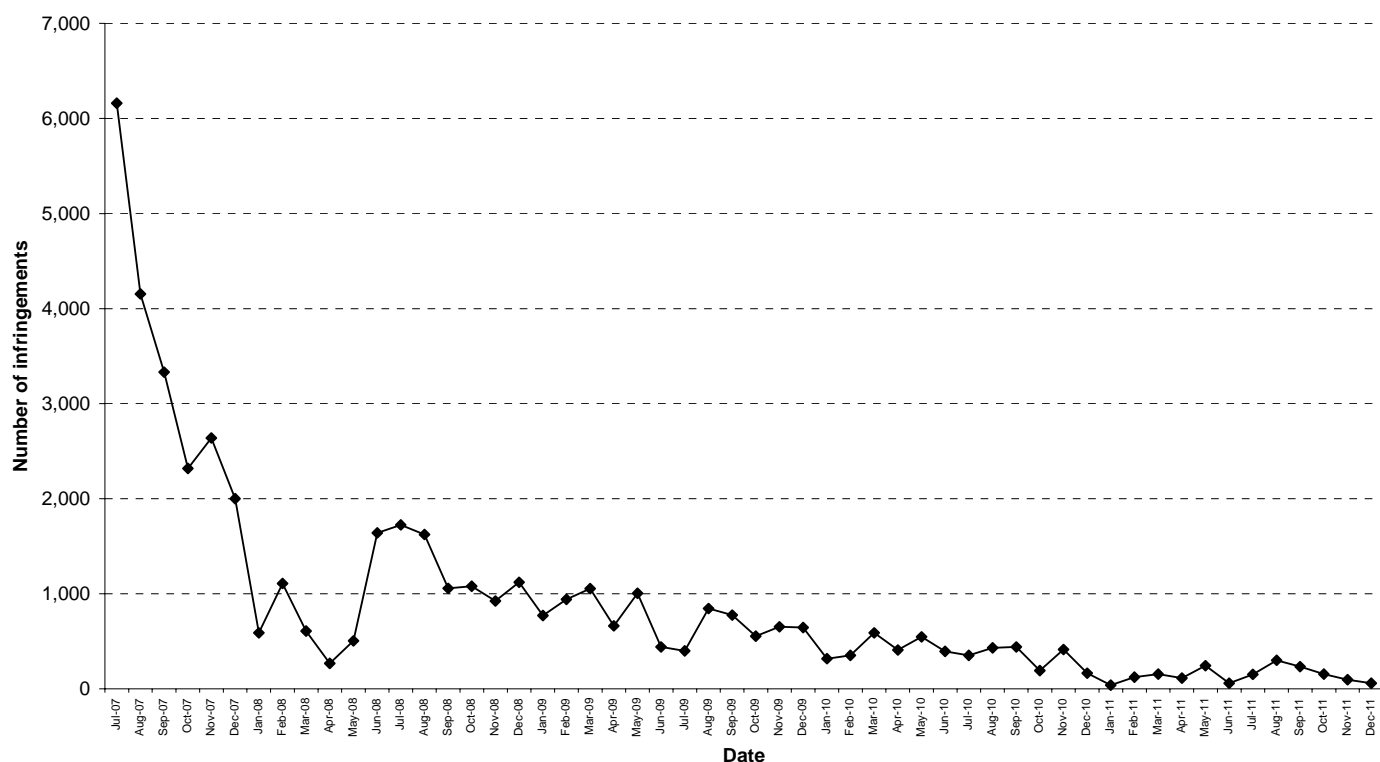
### Crashes at fixed speed camera location

Five years before – April 2002 – April 2007- Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	9	9	33	1.026
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	7	7	16	0.798



## Infringements at fixed speed camera location

PACIFIC HIGHWAY LINDFIELD



### Summary

The school zone fixed speed cameras on the Pacific Highway, Lindfield were installed in July 2007. There are two speed cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 33 crashes resulting in zero fatalities and nine injuries. In the four year period 2007 – 2011 there were 16 crashes at this location resulting in zero fatalities and seven injuries. When compared to the pre installation period, this is a 39 per cent reduction in the annual average number of crashes and a 3 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$22,800 in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Bigge Street, Liverpool (school zone)

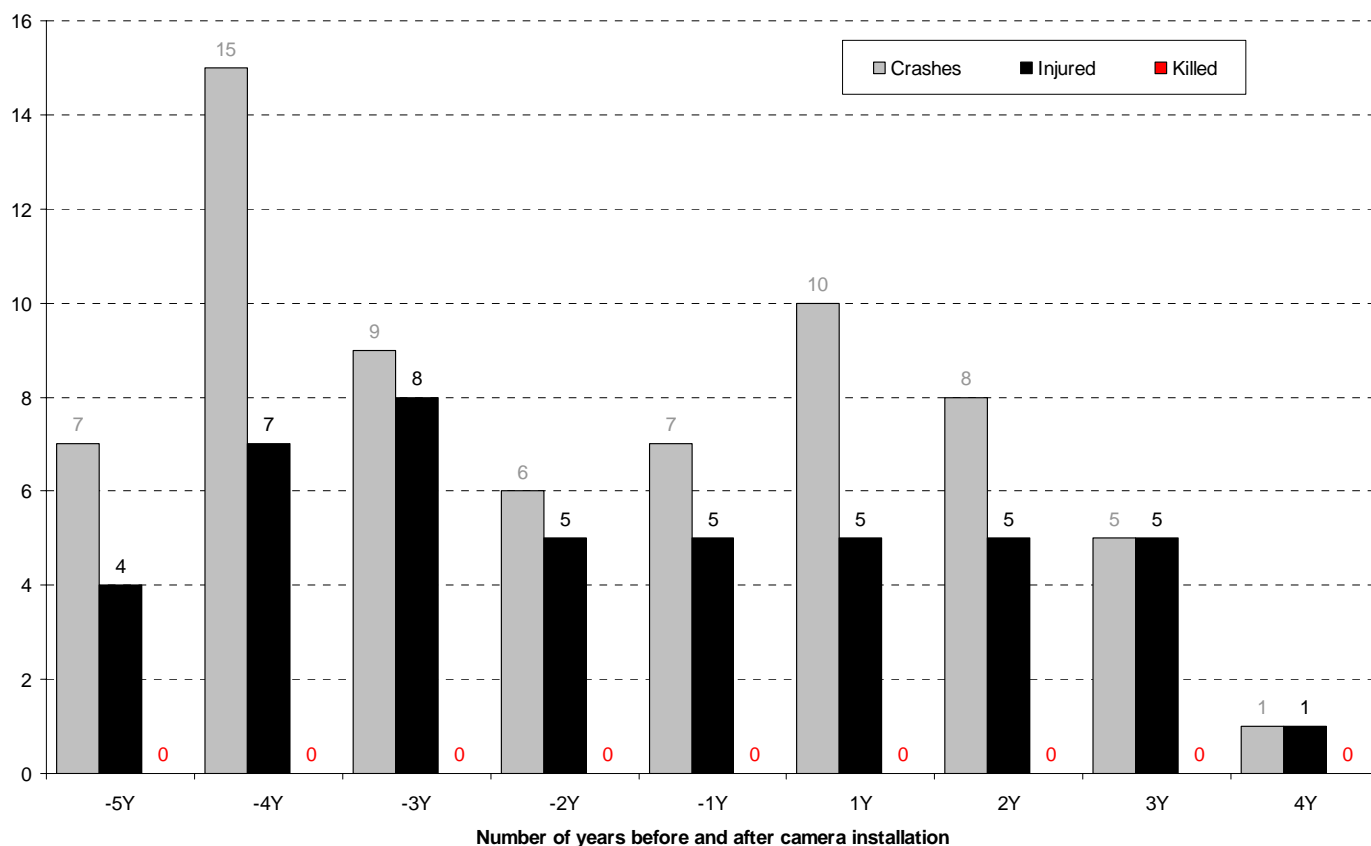
Location: Bigge Street, between Elizabeth Drive and Campbell Street, Liverpool.

School zone: All Saints Catholic Primary School, All Saints Catholic Girls College, All Saints Catholic Boys College.

<b>Length description</b>	150m north of camera to 210m south of camera (camera 9821)
<b>Total length (m)</b>	360 (Patch to Patch)
<b>Started Infringing</b>	14/11/2007

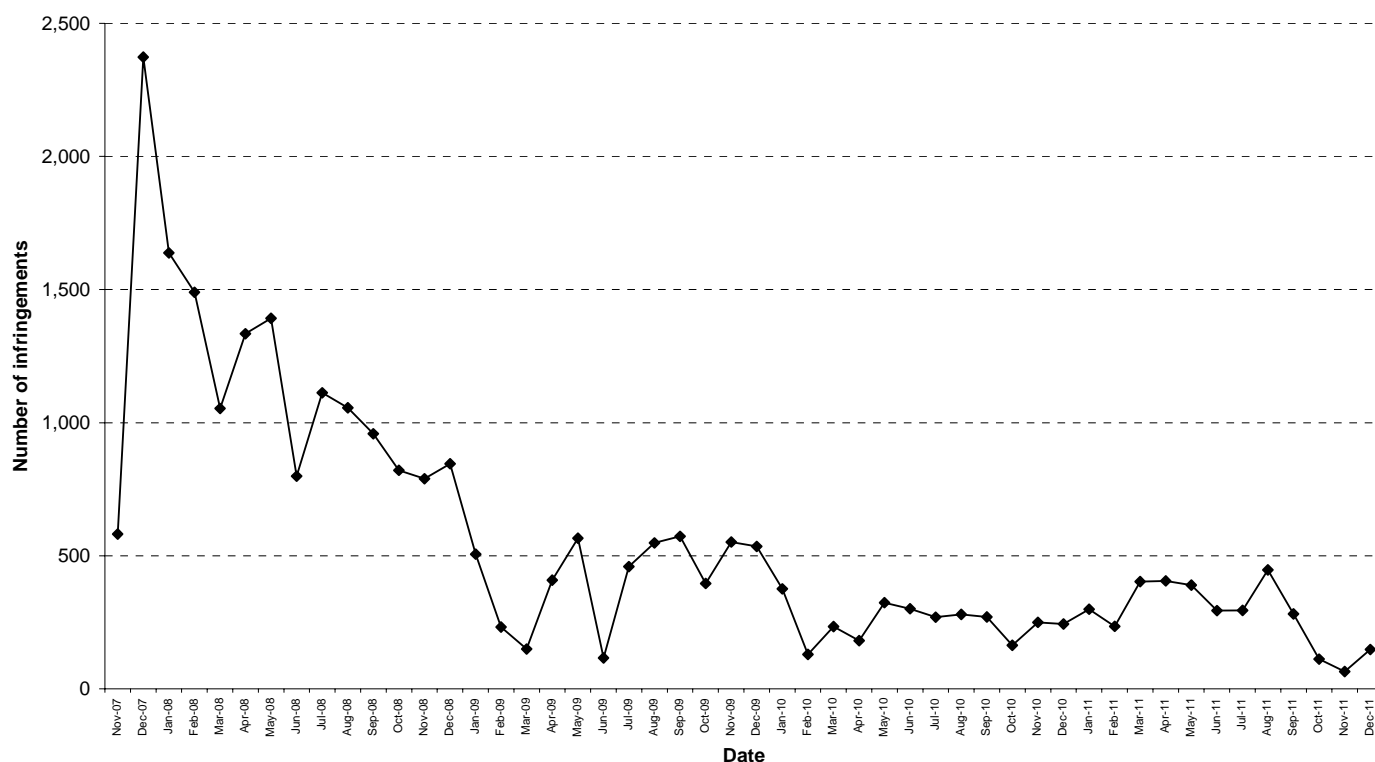
### Crashes at fixed speed camera location

Five years before – August 2002 – August 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	29	29	44	3.306
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	16	16	24	1.824



## Infringements at fixed speed camera location

BIGGE STREET LIVERPOOL



### Summary

The school zone fixed speed camera on Bigge St, Liverpool was installed in November 2007. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 44 crashes resulting in zero fatalities and 29 injuries. In the four year period 2007 – 2011 there were 24 crashes at this location resulting in zero fatalities and 16 injuries. When compared to the pre installation period, this is a 32 per cent reduction in the annual average number of crashes and a 31 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$820,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.



## Fixed digital speed camera – New England Highway, Lochinvar (school zone)

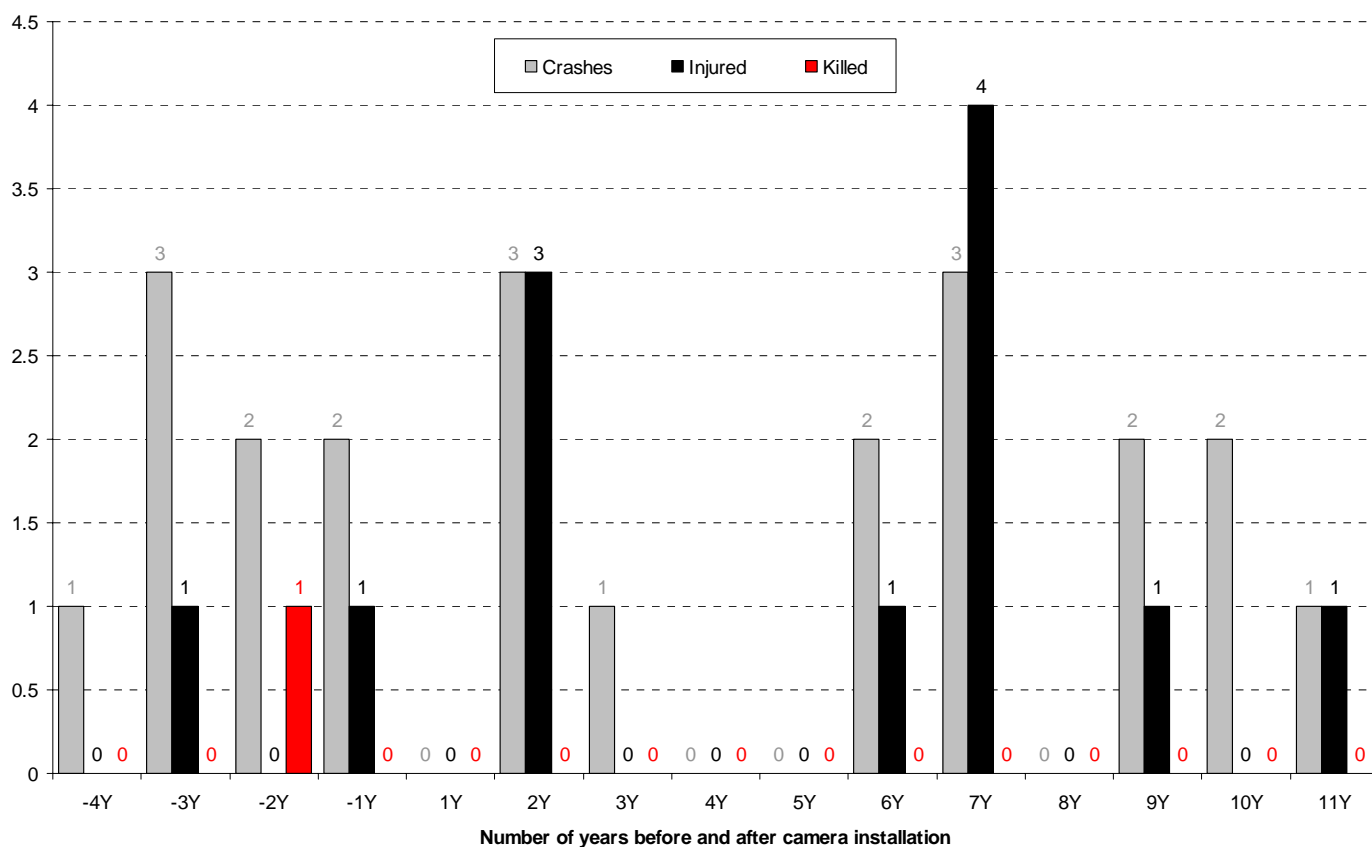
School zone: Lochinvar Public School, St Patrick’s Primary School, All Saint’s College – St Joseph’s Campus.

Location: New England Highway, between Robert Road and Station Lane, Lochinvar.

<b>Length description</b>	150m east of camera to 850m west of camera
<b>Total length (m)</b>	1000 (Patch eastern occurrence)
<b>Started Infringing</b>	09/05/2000

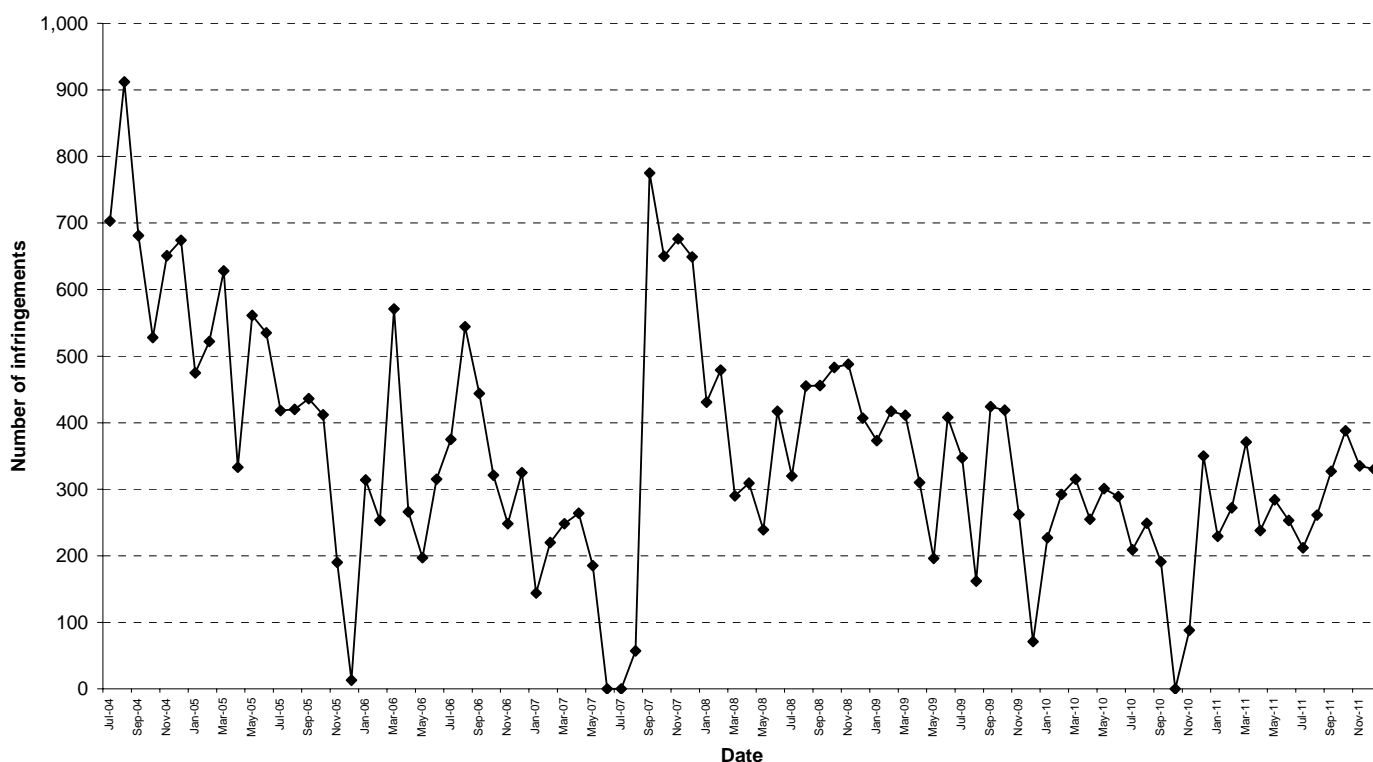
### Crashes at fixed speed camera location

Four years before – February 1996 – February 2000 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	2	3	8	6.062
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	8	0.684



## Infringements at fixed speed camera location

NEW ENGLAND HIGHWAY LOCHINVAR



### Summary

The school zone fixed speed camera on the New England Highway, Lochinvar was installed in May 2000. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were eight crashes resulting in one fatality and two injuries. In the five year period 2006 – 2011 there were eight crashes at this location resulting in zero fatalities and six injuries.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

Based on the assessment criteria the fixed speed camera on New England Highway, Lochinvar was identified for review. The yearly number of crashes at this location has reduced, however the yearly number of casualties has increased. There was one fatality prior to the speed camera being installed, and there have been no fatalities since installation.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements from September 2007 was due to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction.

It is recommended that this speed camera is reviewed.

## Fixed digital speed camera – M2 Tunnel, M2 Motorway (high risk location)

Location: M2 Tunnel, between Tery Creek and Norfolk Road, M2 Motorway.

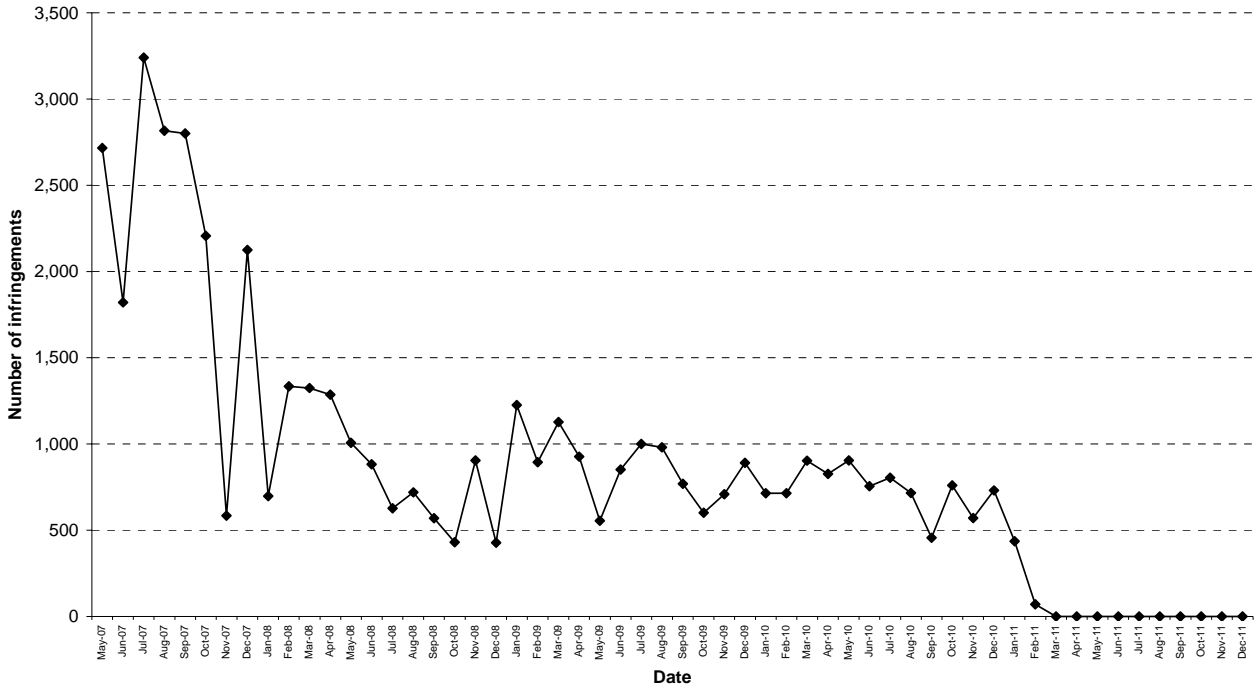
<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	11/05/2007

## High risk fixed speed camera location – Provisional crash data calendar year 2011

Westbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	0	1	1	0	0	0

## Infringements at fixed speed camera location

M2 MOTORWAY NORTH EPPING



## Summary

The fixed speed camera in the M2 Tunnel, M2 Motorway was installed in May 2007. There is one speed camera at this location, however the camera is not currently installed due to roadworks.

This location is appropriate for fixed speed camera enforcement as it is a high risk location that is difficult for the NSW Police Force to enforce using traditional methods. Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

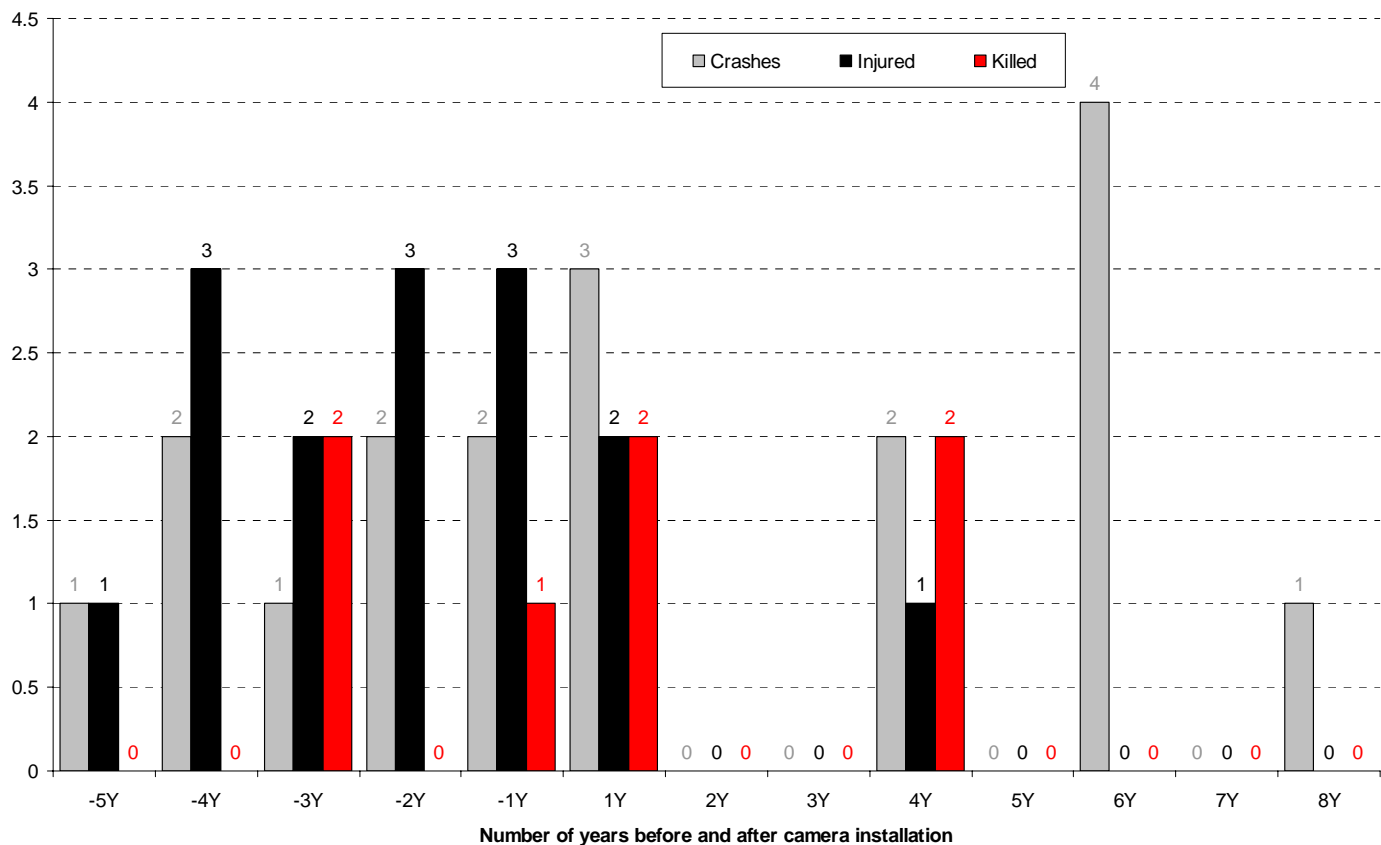
### Fixed digital speed camera – Pacific Highway, Macksville

Location: Pacific Highway, between Florence Wilmont Drive and Watt Creek, Macksville.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	03/03/2003

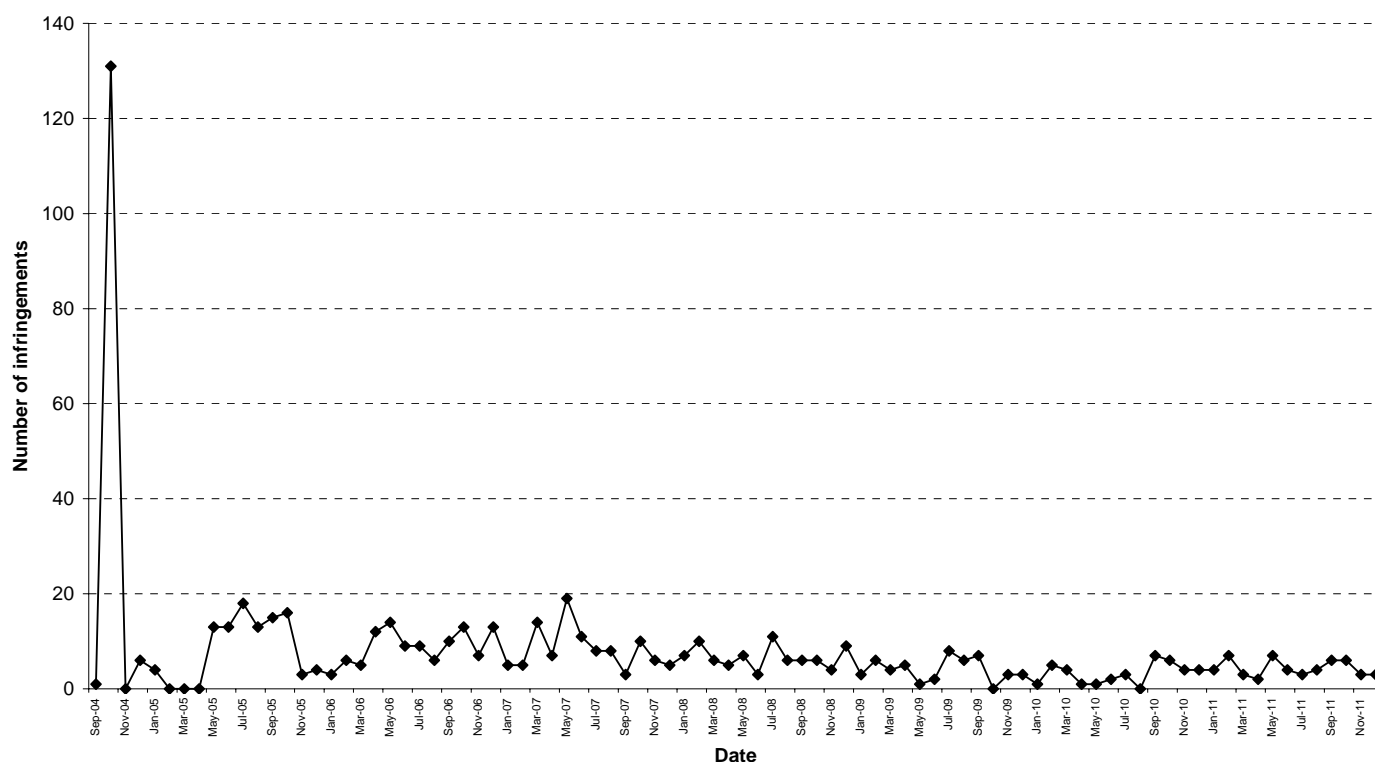
### Crashes at fixed speed camera location

Five years before – December 1997 – December 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
3	12	15	8	18.87
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	1	3	7	11.782



## Infringements at fixed speed camera location

PACIFIC HIGHWAY MACKSVILLE



### Summary

The fixed speed camera on the Pacific Highway, Macksville was installed in March 2003. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were eight crashes resulting in three fatalities and 12 injuries. In the five year period 2006 – 2011 there were seven crashes at this location resulting in two fatalities and one injury. When compared to the pre installation period, this is a 13 per cent reduction in the annual average number of crashes and a 80 per cent reduction in the annual average number of casualties. This has been a saving of \$7.088 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Malabar Road, Maroubra (school zone)

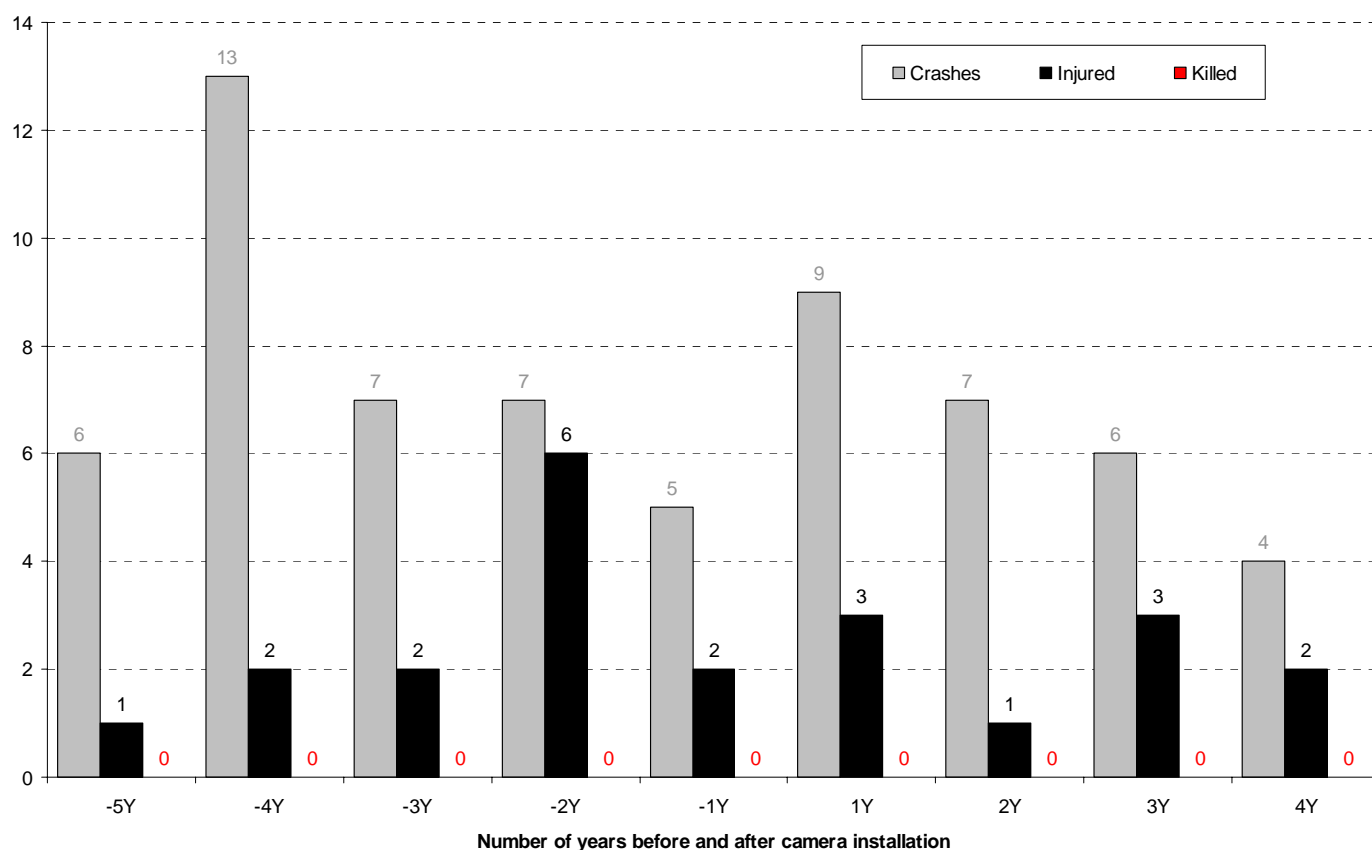
Location: Malabar Road, between Mons Avenue and Duncan Street, Maroubra.

School zone: St Mary and St Joseph's Primary, Maroubra Bay.

<b>Length description</b>	170m south of camera to 510m north of camera
<b>Total length (m)</b>	680 (Patch to Patch)
<b>Started Infringing</b>	20/06/2007

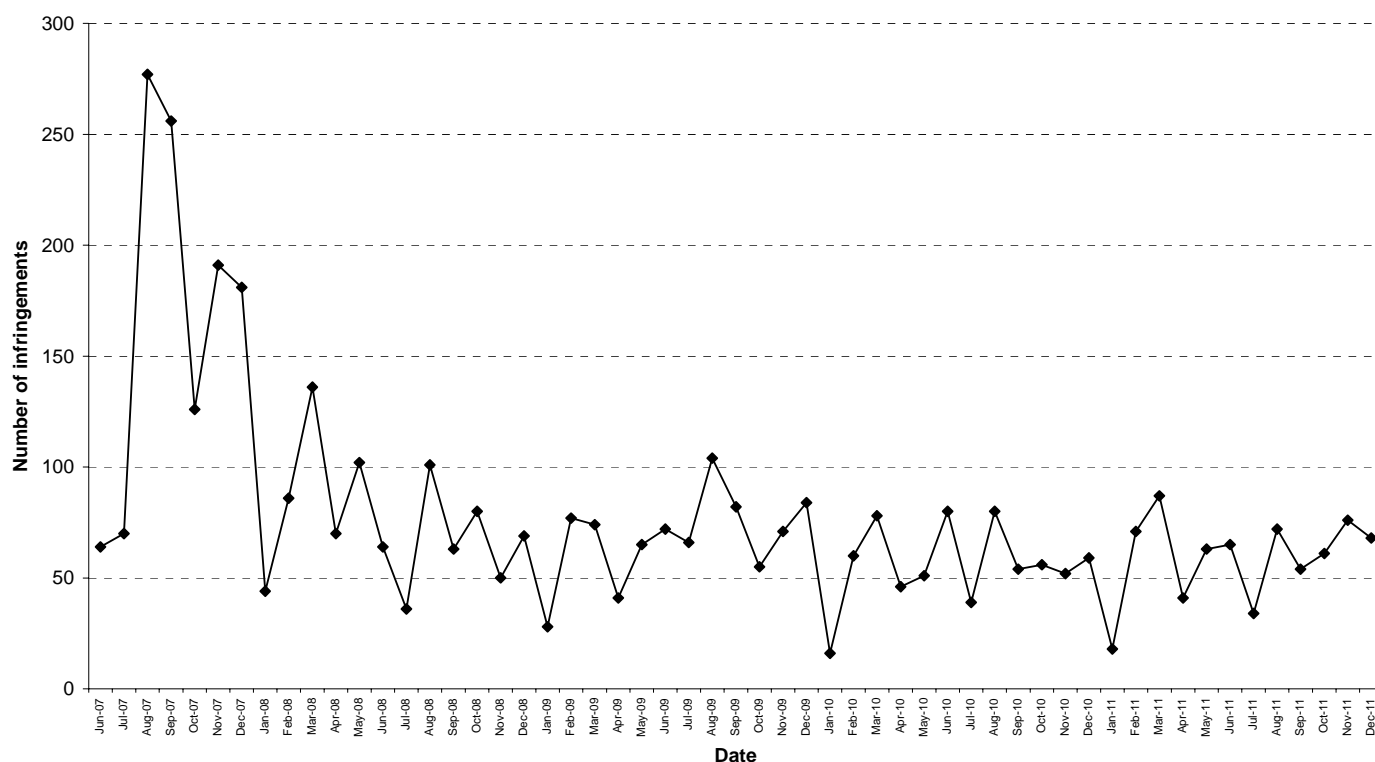
### Crashes at fixed speed camera location

Five years before – March 2002 – March 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	13	13	38	1.482
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	9	9	26	1.026



## Infringements at fixed speed camera location

MALABAR ROAD MAROUBRA



### Summary

The school zone fixed speed cameras on Malabar Road, Maroubra were installed in June 2007. There are two speed cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 38 crashes resulting in zero fatalities and 13 injuries. In the four year period 2007 – 2011 there were 26 crashes at this location resulting in zero fatalities and nine injuries. When compared to the pre installation period, this is a 14 per cent reduction in the annual average number of crashes and a 13 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$159,000 in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

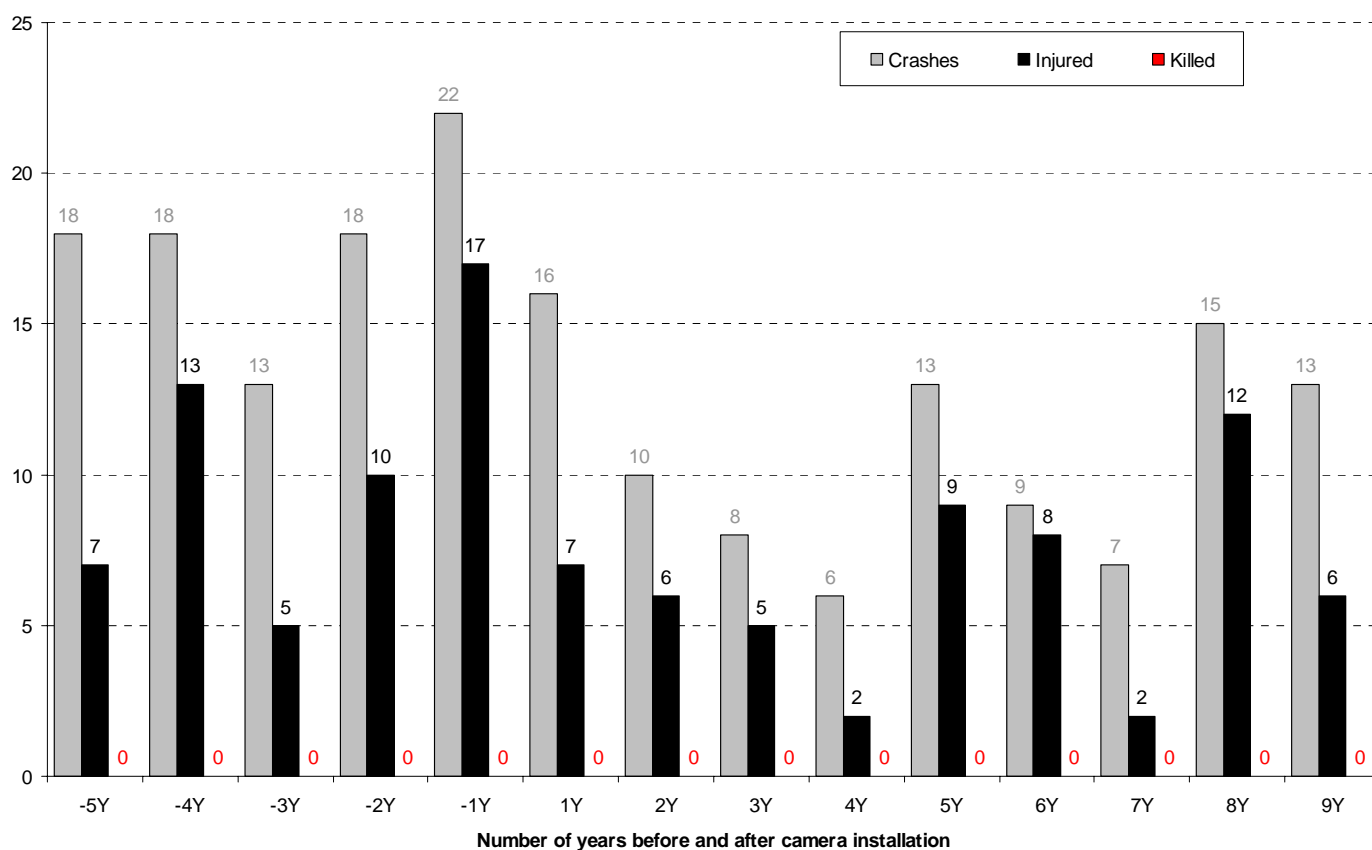
## Fixed digital speed camera – Pacific Highway, Mayfield West

Location: Pacific Highway, between Werribee Street and Tourle Street, Mayfield West.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	23/12/2002

### Crashes at fixed speed camera location

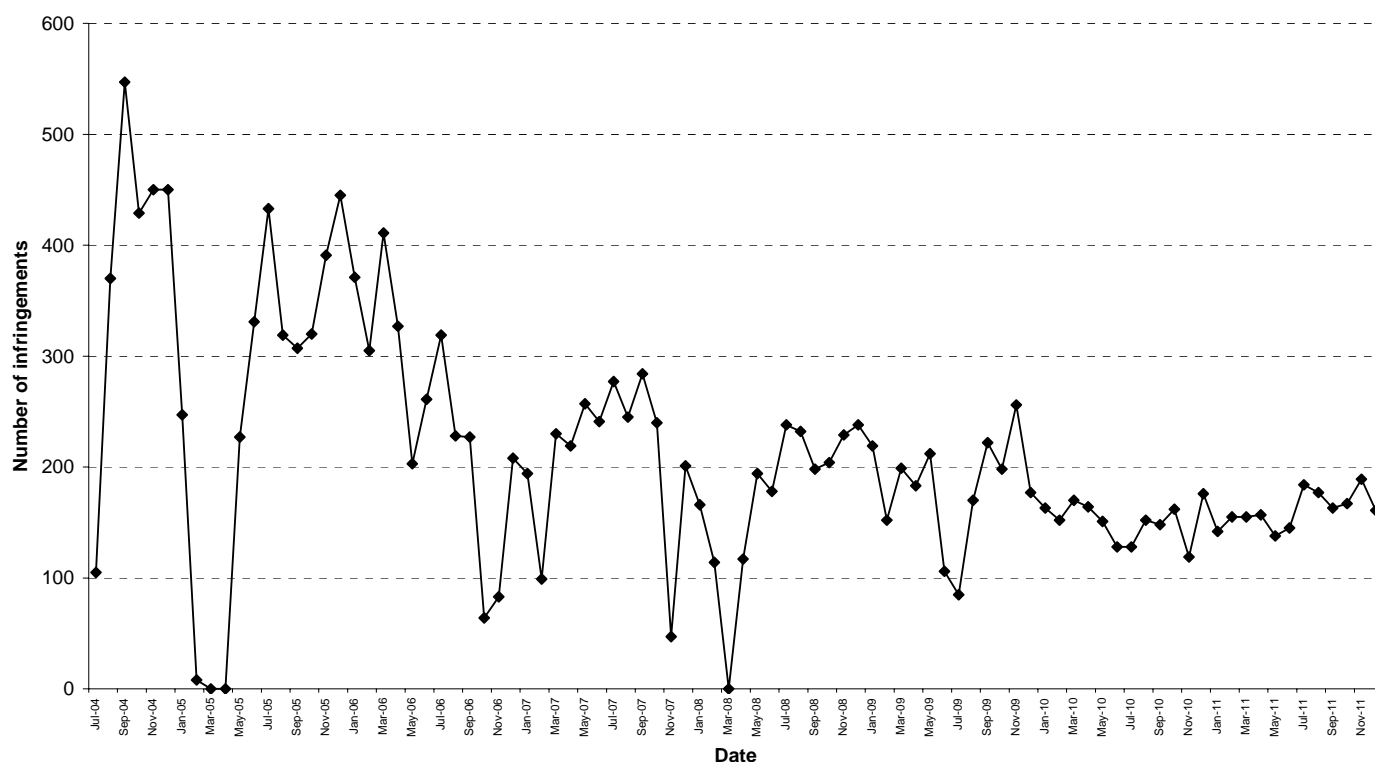
Five years before – September 1997 – September 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	52	52	89	5.928
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	37	37	57	4.218





## Infringements at fixed speed camera location

PACIFIC HIGHWAY MAYFIELD WEST



### Summary

The fixed speed camera on Pacific Highway, Mayfield West was installed in December 2002. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 89 crashes resulting in zero fatalities and 52 injuries. In the five year period 2006 – 2011 there were 57 crashes at this location resulting in zero fatalities and 37 injuries. When compared to the pre installation period, this is a 36 per cent reduction in the annual average number of crashes and a 29 per cent reduction in the annual average number of casualties. This has been a saving of \$1.71 million in costs to the community.

Provisional crash data show there were 13 crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

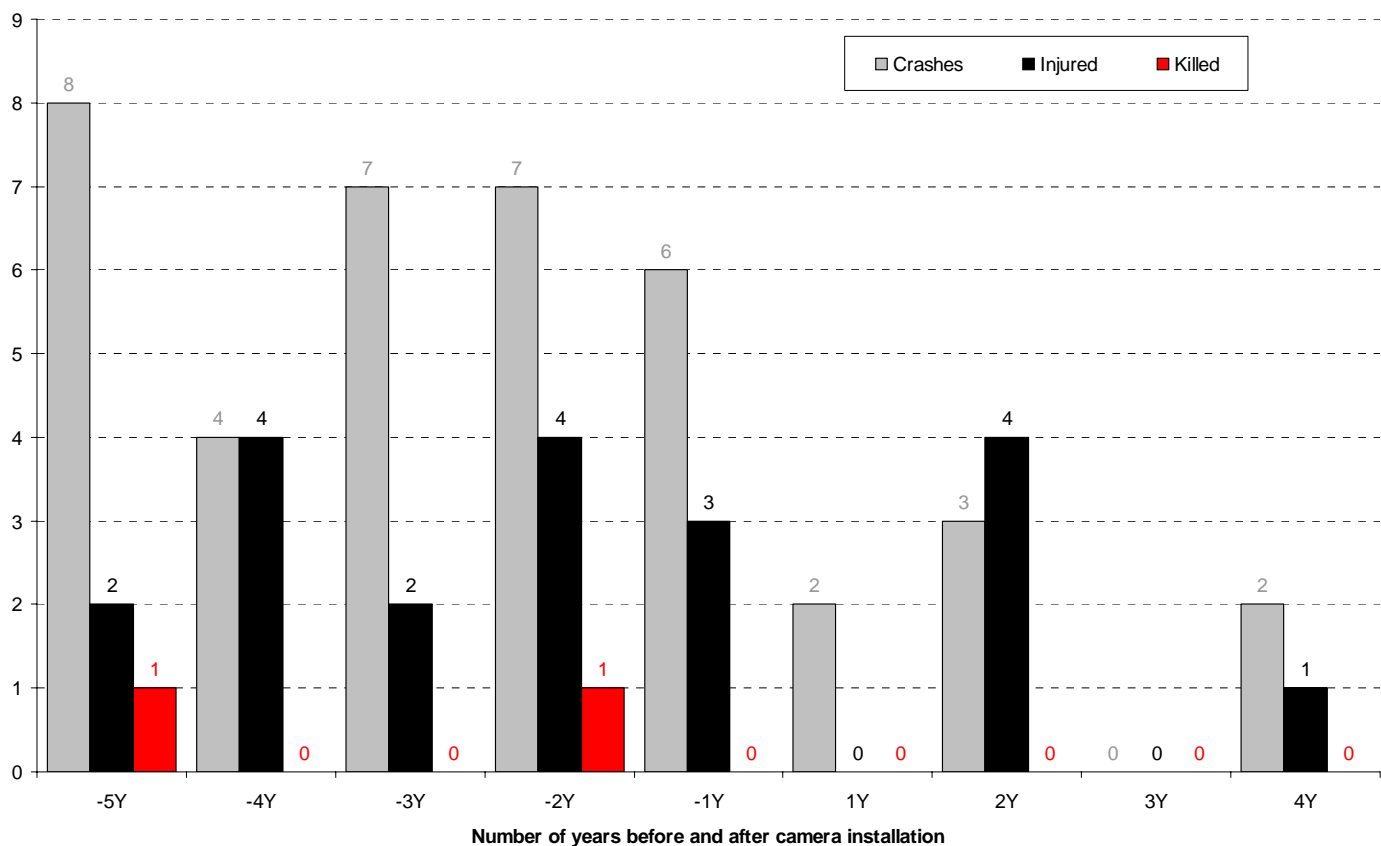
### Fixed digital speed camera – Merrylands Road, Merrylands (school zone)

Location: Merrylands Road, between Chetwynd Road and Davies Street, Merrylands.  
 School zone: St Margaret Mary’s Primary School.

<b>Length description</b>	120m east of camera to 100m west of camera
<b>Total length (m)</b>	220 (Patch to Patch)
<b>Started Infringing</b>	16/05/2007

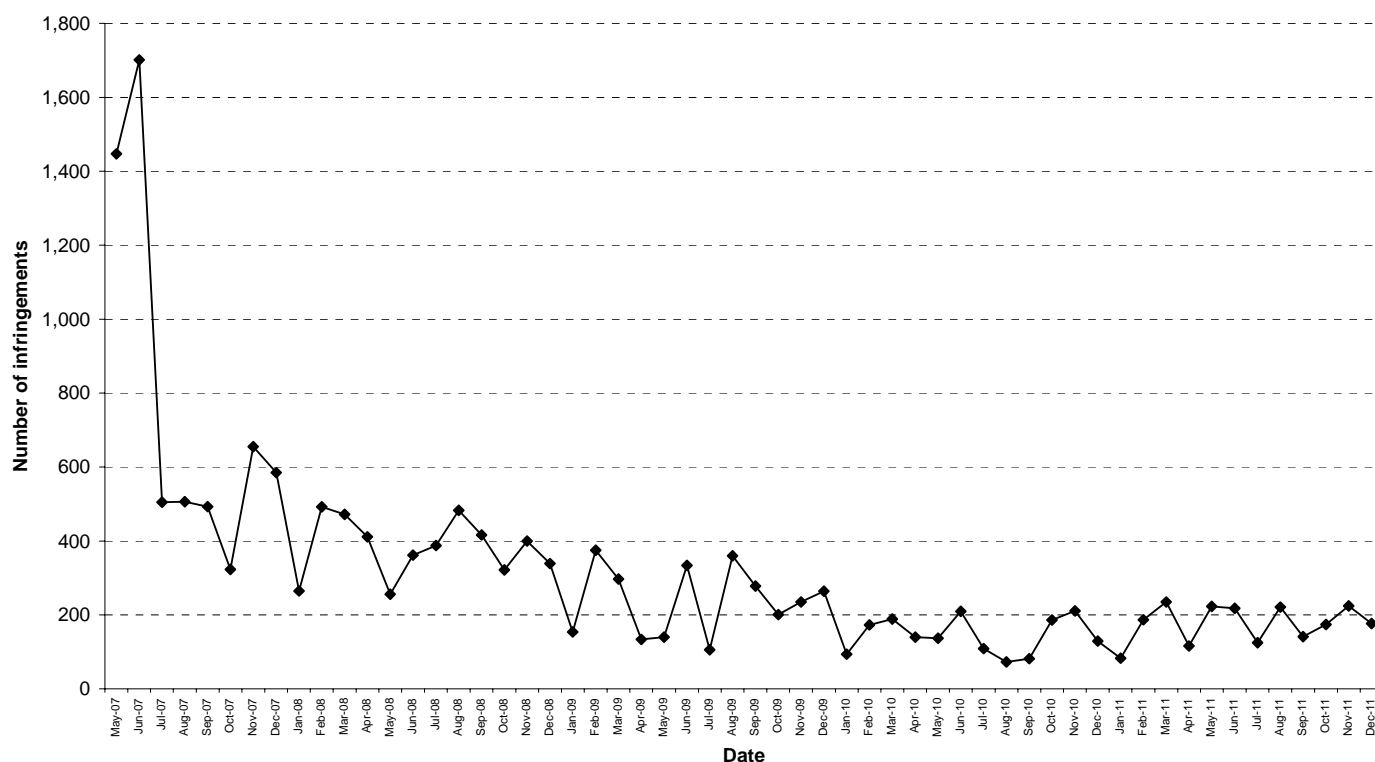
### Crashes at fixed speed camera location

Five years before – February 2002 – February 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	15	17	32	13.378
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	5	5	7	0.57



## Infringements at fixed speed camera location

MERRYLANDS ROAD MERRYLANDS



### Summary

The school zone fixed speed camera on Merrylands Road, Merrylands was installed in May 2007. There is one speed camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 32 crashes resulting in two fatalities and 15 injuries. In the four year period 2007 – 2011 there were seven crashes at this location resulting in zero fatalities and five injuries. When compared to the pre installation period, this is a 73 per cent reduction in the annual average number of crashes and a 63 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$10.1 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

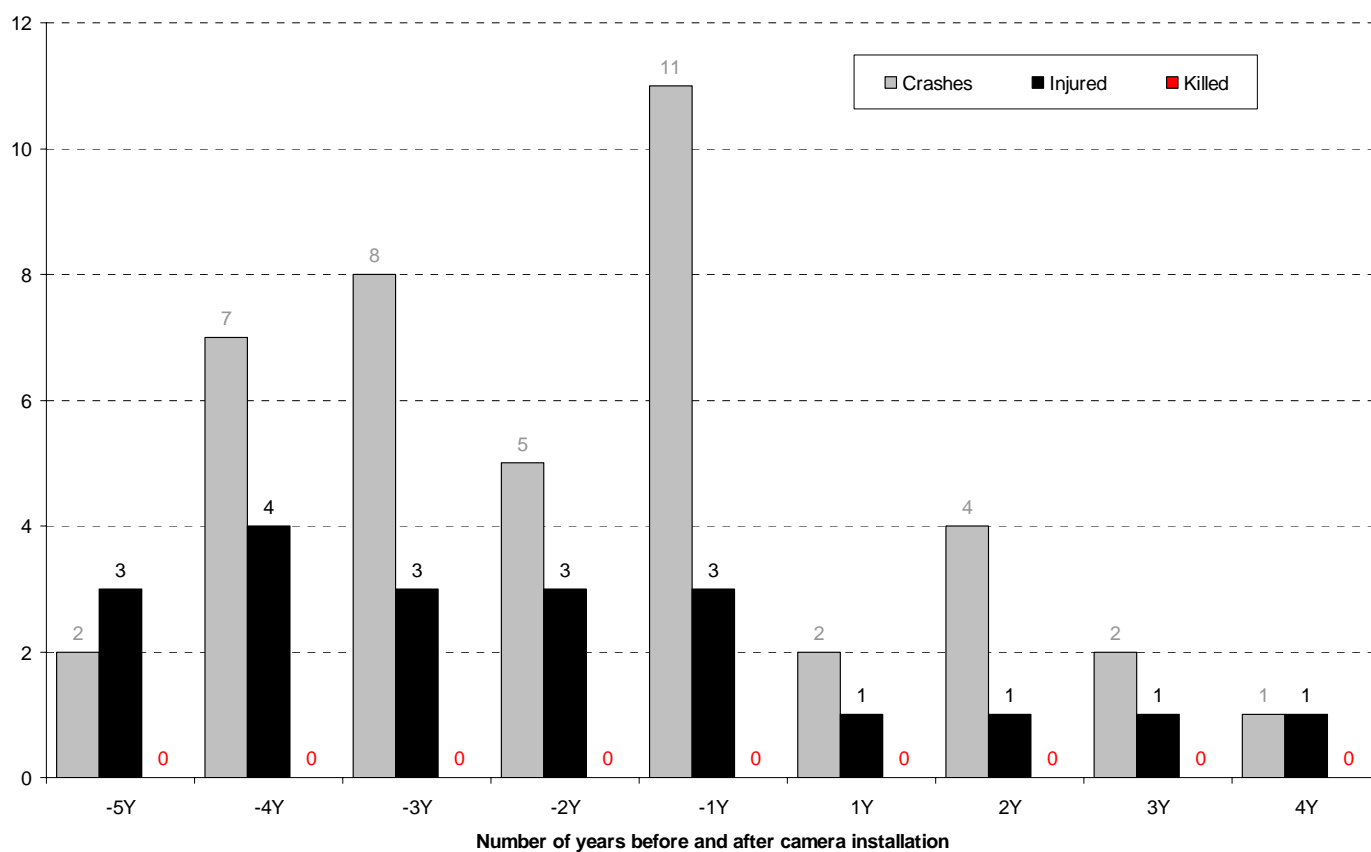
## Fixed digital speed camera – Kingsway, Miranda (school zone)

Location: Kingsway, between Sylva Avenue and University Road, Miranda.  
 School zone: Port Hacking High School, Miranda Public School.

<b>Length description</b>	180m west of camera to 220m east of camera
<b>Total length (m)</b>	400 (Patch to Patch)
<b>Started Infringing</b>	07/11/2007

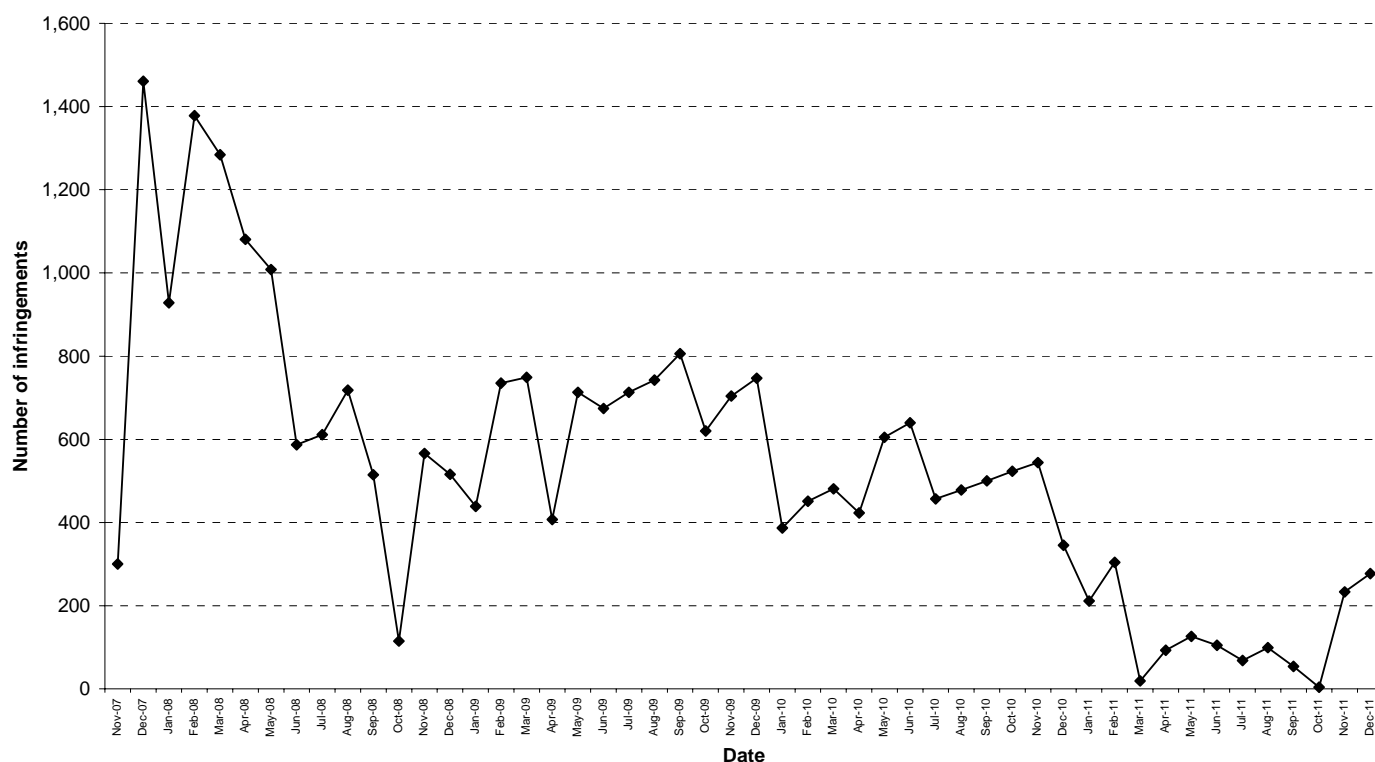
### Crashes at fixed speed camera location

Five years before – August 2002 – August 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	16	16	33	1.824
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	4	4	9	0.456



## Infringements at fixed speed camera location

KINGSWAY MIRANDA



### Summary

The school zone fixed speed cameras on Kingsway, Miranda were installed in November 2007. There are two speed cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 33 crashes resulting in zero fatalities and 16 injuries. In the four year period 2007 – 2011 there were nine crashes at this location resulting in zero fatalities and four injuries. When compared to the pre installation period, this is a 66 per cent reduction in the annual average number of crashes and a 69 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$1 million in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

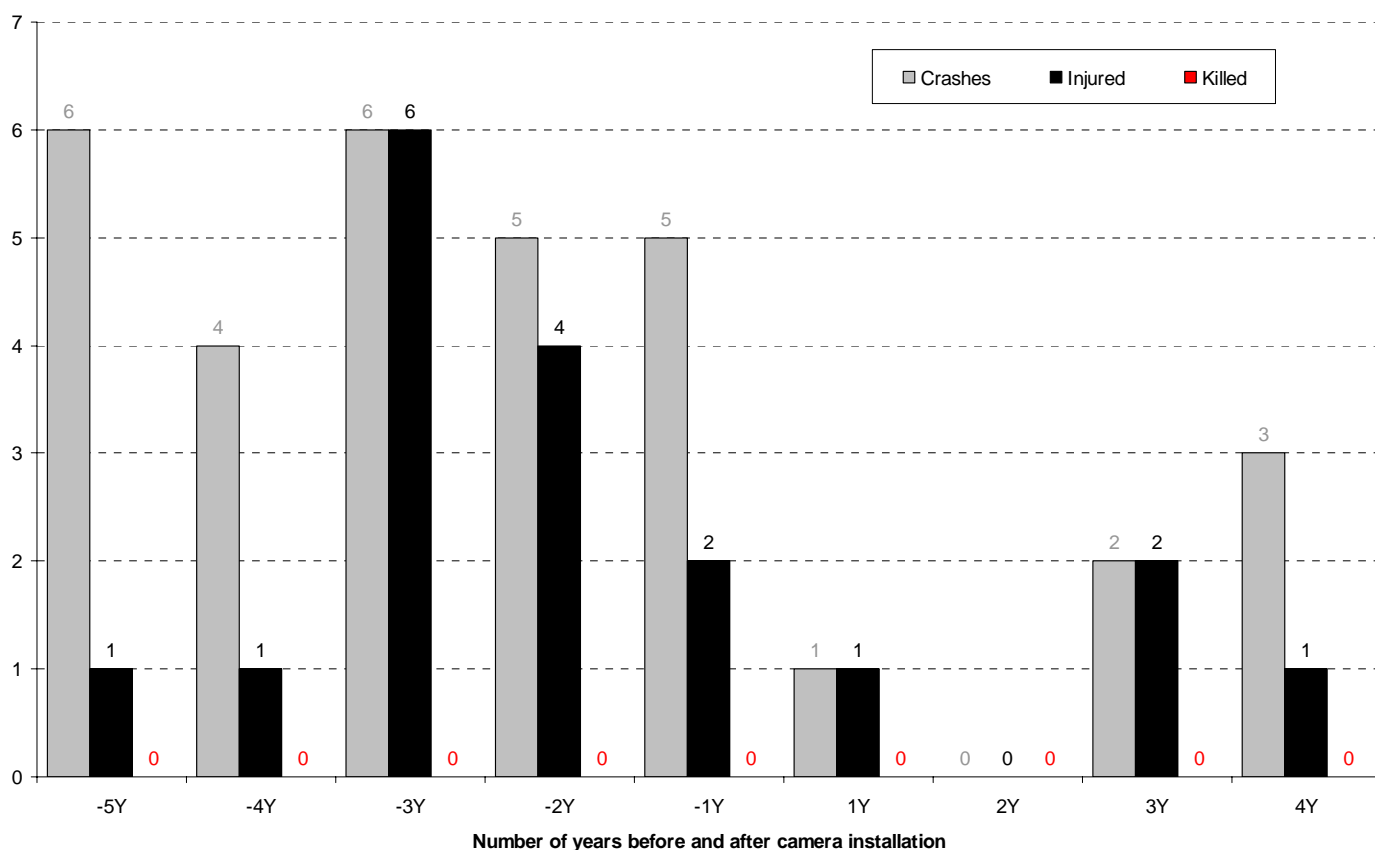
## Fixed digital speed camera – Cleveland St, Moore Park (school zone)

Location: Cleveland Street, between Anzac Parade and South Dowling Street, Moore Park.  
 School zone: Sydney Boys High School, Sydney Girls High School.

<b>Length description</b>	130m west of camera to 250m east of camera
<b>Total length (m)</b>	380 (Patch to Patch)
<b>Started Infringing</b>	14/11/2007 (camera 1 – eastbound) 15/11/2007 (Camera 2 – westbound)

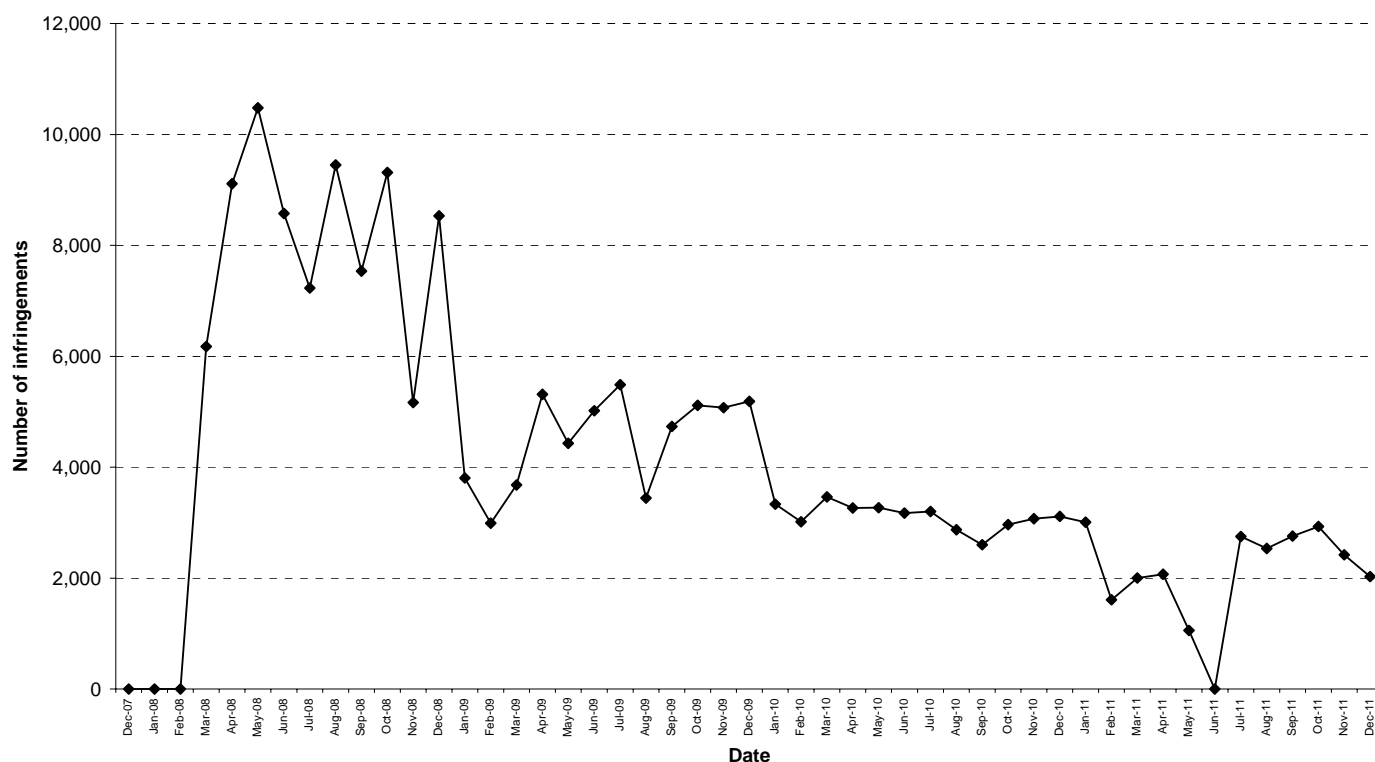
### Crashes at fixed speed camera location

Five years before – August 2002 – August 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	14	14	26	1.596
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	4	4	6	0.456



## Infringements at fixed speed camera location

CLEVELAND STREET MOORE PARK



### Summary

The school zone fixed speed cameras on Cleveland Street, Moore Park were installed in November 2007. There are two speed cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 26 crashes resulting in zero fatalities and 14 injuries. In the four year period 2007 – 2011 there were six crashes at this location resulting in zero fatalities and four injuries. When compared to the pre installation period, this is a 71 per cent reduction in the annual average number of crashes and a 64 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$820,000 in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

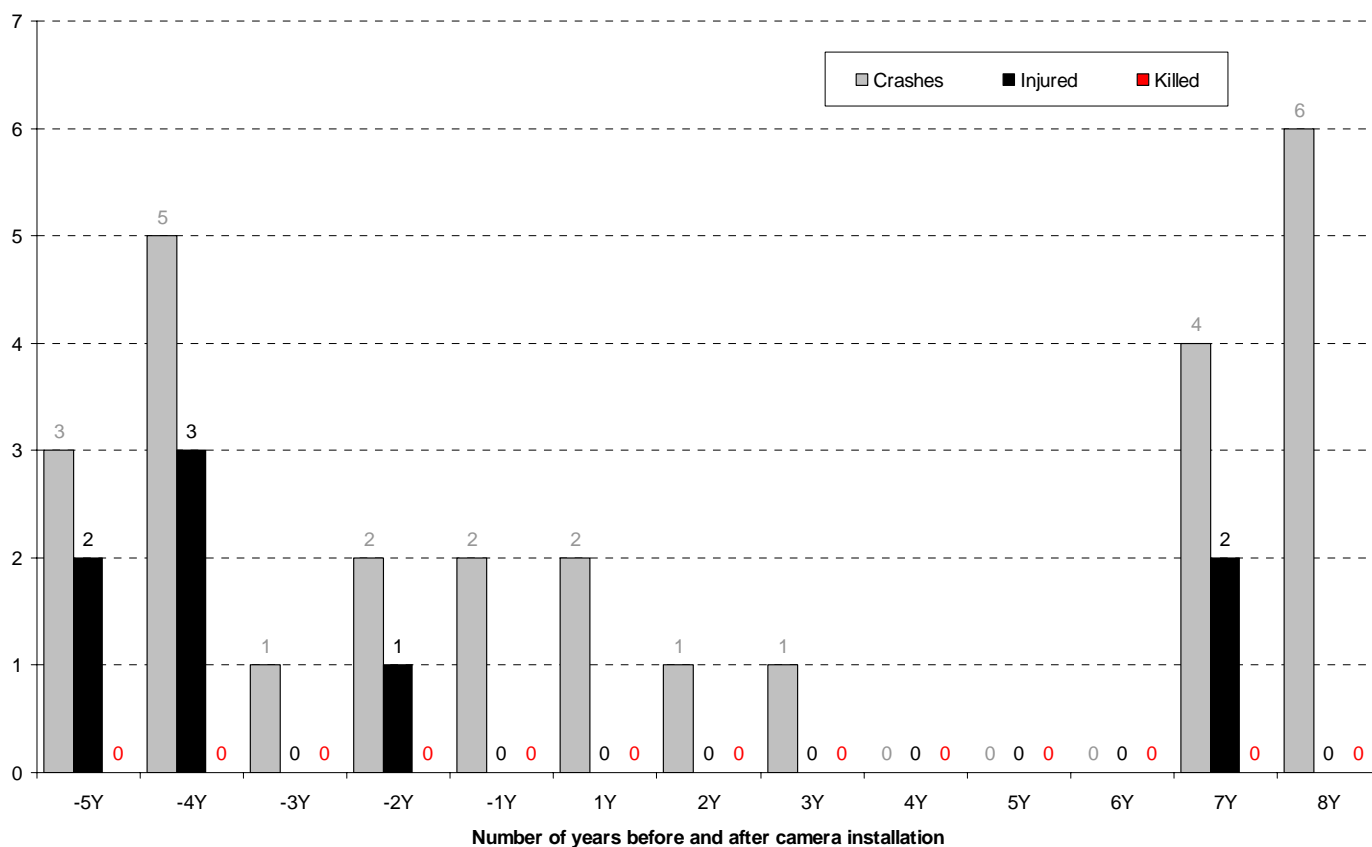
## Fixed digital speed camera – Macpherson Street, Mosman (school zone)

Location: Macpherson Street, between Ourimbah Road and Montague Road, Mosman.  
 School zone: Middle Harbour Primary School.

<b>Length description</b>	90m north of camera to 230m south of camera
<b>Total length (m)</b>	320 (Patch to Patch)
<b>Started Infringing</b>	15/07/2003

### Crashes at fixed speed camera location

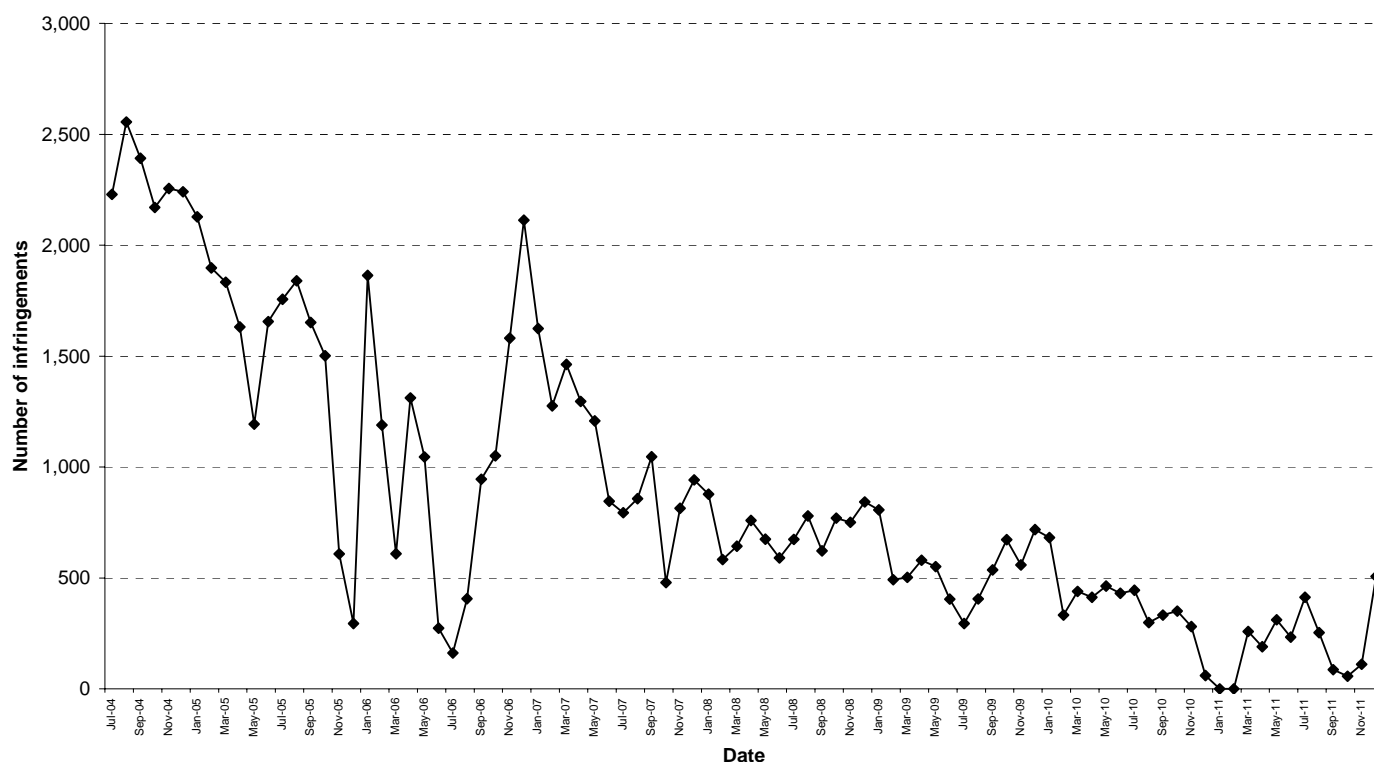
Five years before – April 1998 – April 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	13	0.684
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	2	2	10	0.228





## Infringements at fixed speed camera location

MACPHERSON STREET MOSMAN



### Summary

The school zone fixed speed camera on Macpherson Street, Mosman was installed in July 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 13 crashes resulting in zero fatalities and six injuries. In the five year period 2006 – 2011 there were 10 crashes at this location resulting in zero fatalities and two injuries. When compared to the pre installation period, this is a 23 per cent reduction in the annual average number of crashes and a 67 per cent reduction in the annual average number of casualties. This has been a saving of \$456,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

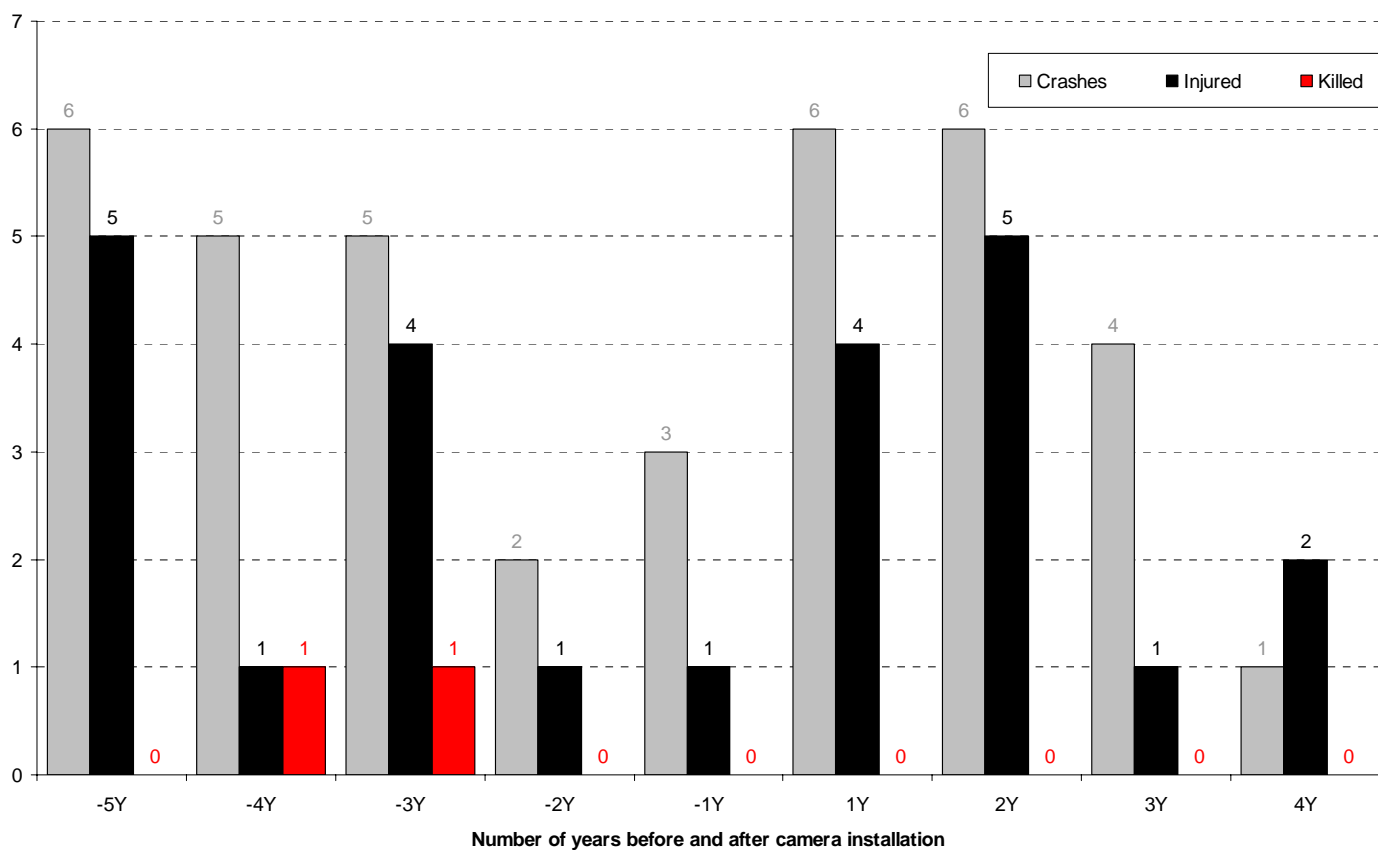
## Fixed digital speed camera – Pittwater Road, Narrabeen (school zone)

Location: Pittwater Road, between Ocean Street and Devitt Street, Narrabeen.  
 School zone: Narrabeen Lakes Primary School.

<b>Length description</b>	170m south of camera to 130m north of camera
<b>Total length (m)</b>	300
<b>Started Infringing</b>	31/10/2007

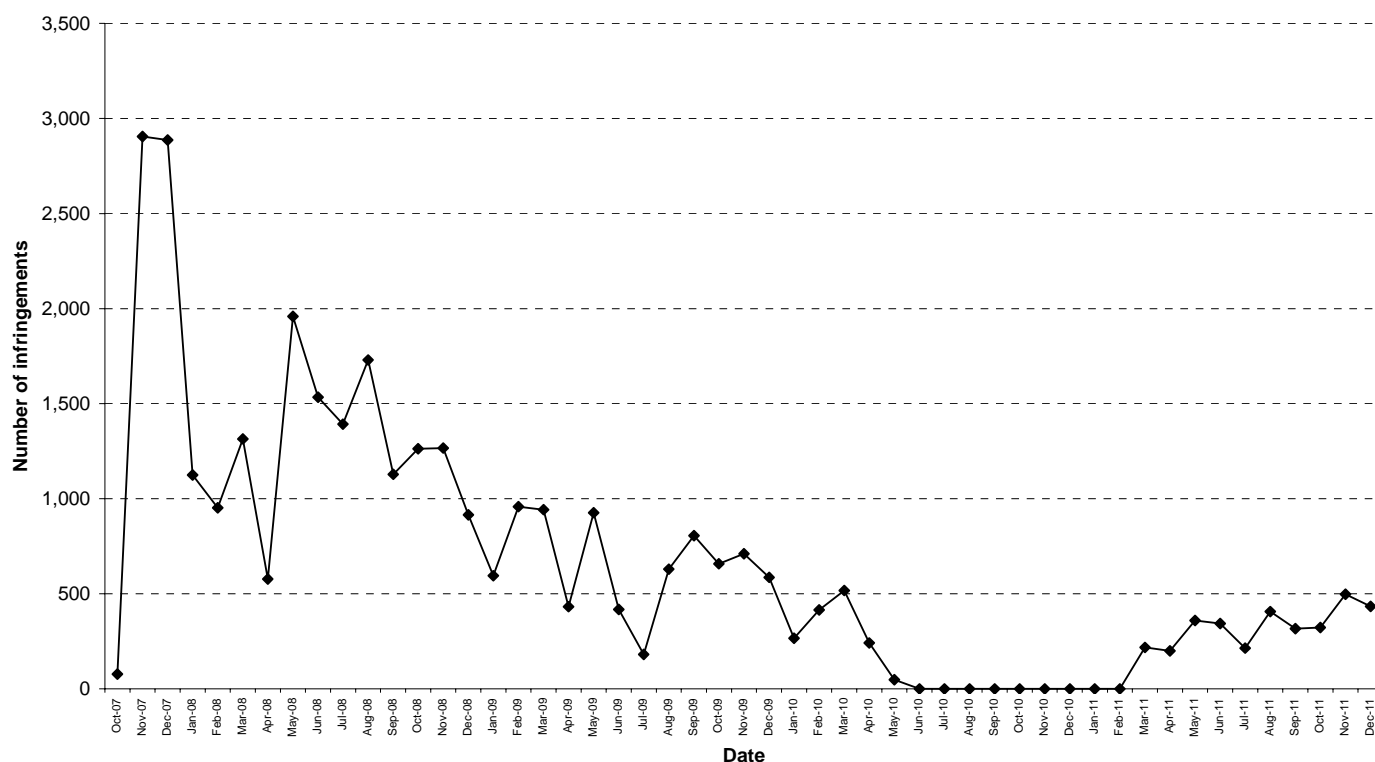
### Crashes at fixed speed camera location

Five years before – July 2002 – July 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	12	14	21	13.036
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	12	12	17	1.368



## Infringements at fixed speed camera location

PITTWATER ROAD NARRABEEN



### Summary

The school zone fixed speed cameras on Pittwater Road, Narrabeen were installed in October 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 21 crashes resulting in two fatalities and 12 injuries. In the four year period 2007 – 2011 there were 17 crashes at this location resulting in zero fatalities and 12 injuries.

When compared to the pre installation period, this is a slight 1 per cent increase in the annual average number of crashes and a 7 per cent increase in the annual average number of casualties. As the cameras were installed in 2007, a full 5 year post-installation crash analysis is not yet possible. However, provisional crash data show there were zero crashes at this fixed speed camera location in 2011. Detailed crash analysis indicates that there has not been a crash at this location since December 2010. Further, fatalities at this location have dropped from two in the pre-installation period to zero in the four years after the cameras were installed.

The infringement graph details the trend in infringements since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. The extended period of camera downtime from June 2010 – February 2011 was due to road resurfacing at the location.

These cameras will continue to be monitored to ensure they deliver the expected road safety benefits.

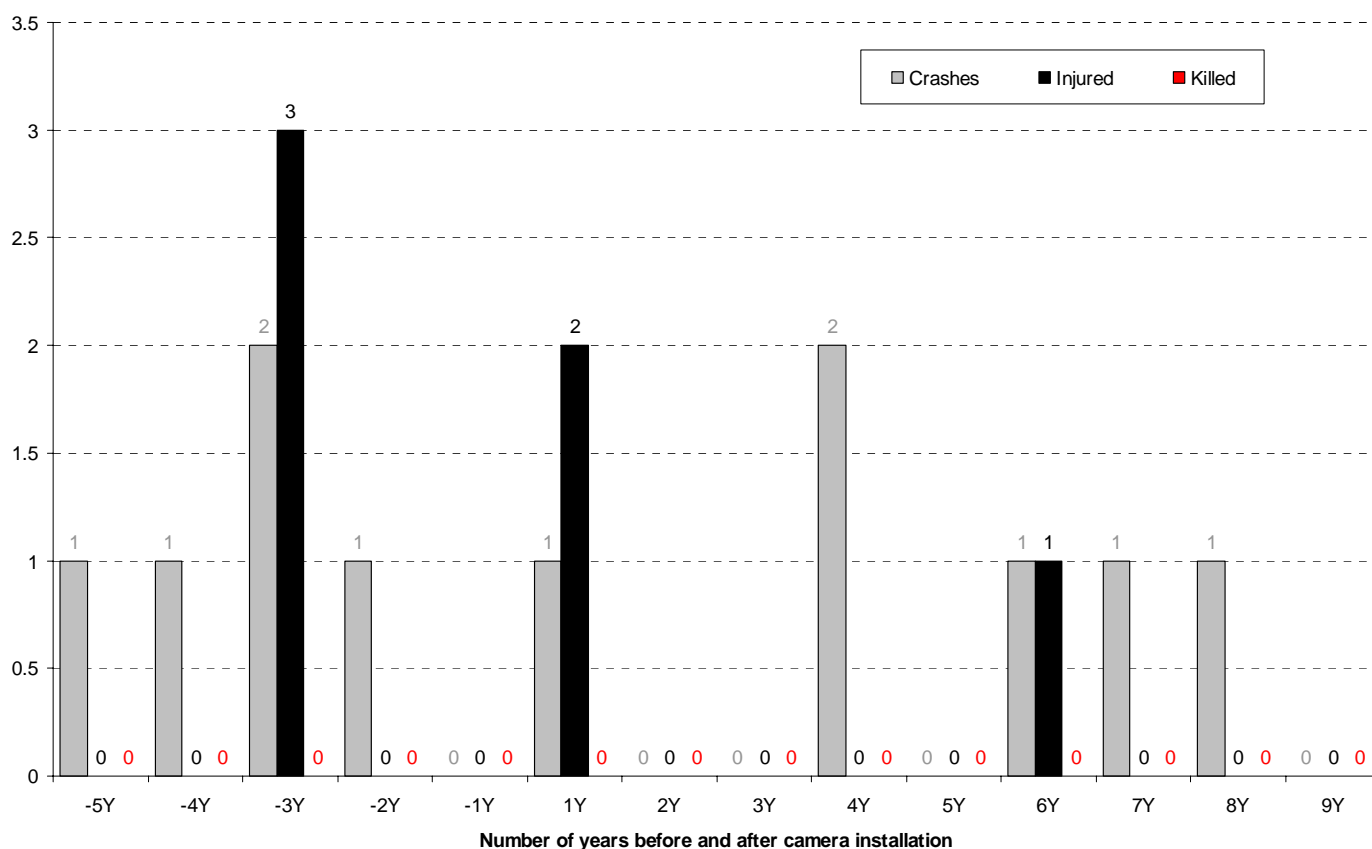
## Fixed digital speed camera – Pacific Highway, New Italy

Location: Pacific Highway, between New Italy Road and Turners Road, New Italy.

<b>Length description</b>	500m south to 500m north of mid point between camera 1 & camera 2
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	25/07/2002

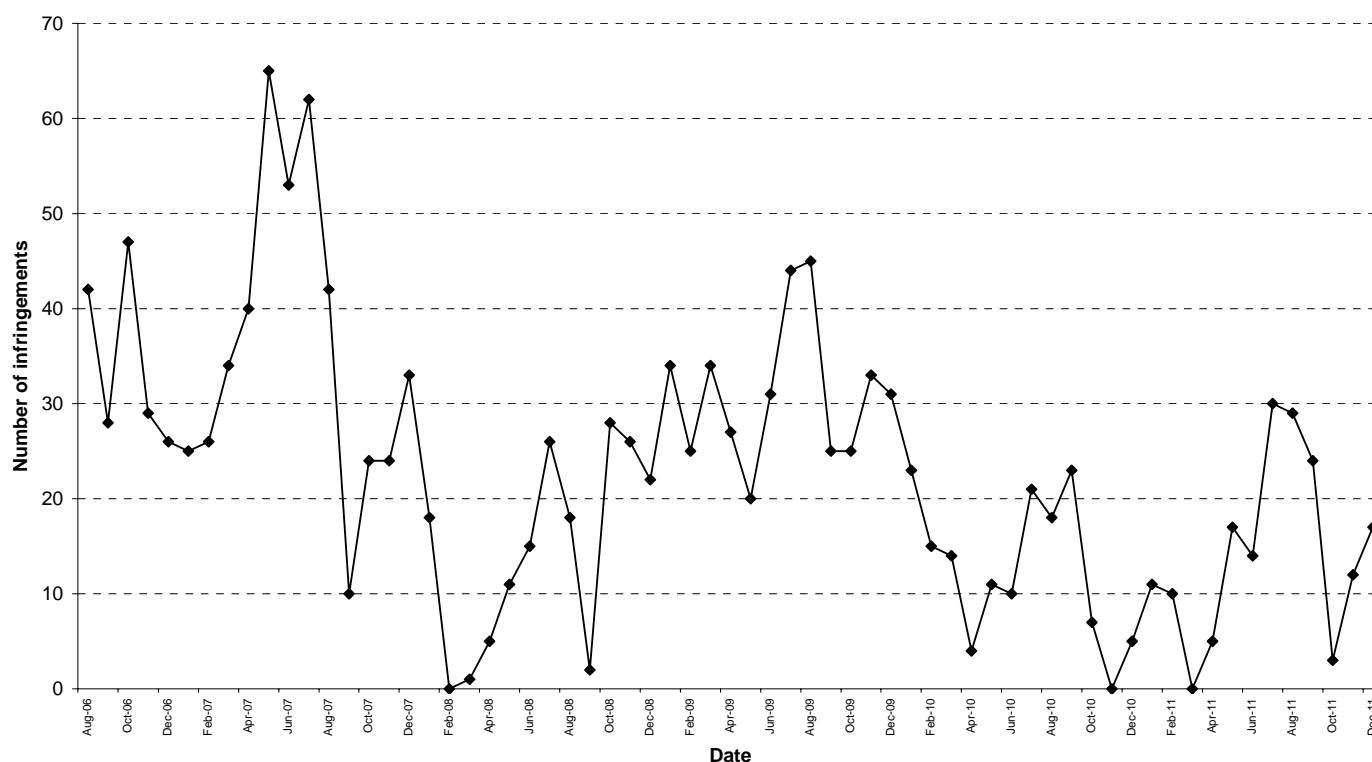
### Crashes at fixed speed camera location

Five years before – April 1997 – April 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	3	3	5	0.342
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	1	1	3	0.114



## Infringements at fixed speed camera location

PACIFIC HIGHWAY NEW ITALY



### Summary

The fixed speed cameras on the Pacific Highway, New Italy were installed in July 2002. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were five crashes resulting in zero fatalities and three injuries. In the five year period 2006 – 2011 there were three crashes at this location resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 40 per cent reduction in the annual average number of crashes and a 67 per cent reduction in the annual average number of casualties. This has been a saving of \$228,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed cameras at this location are found to be delivering the expected road safety benefits.

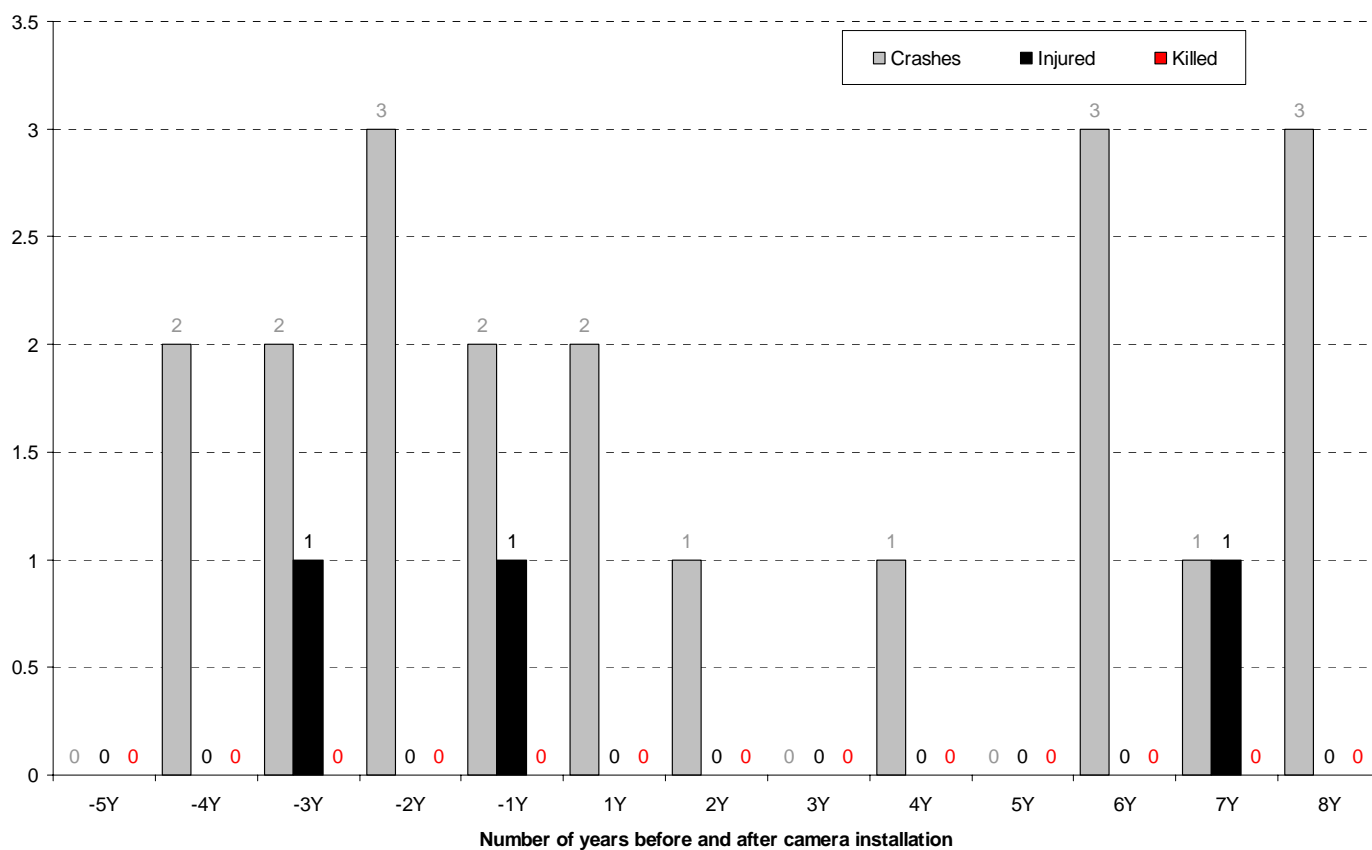
## Fixed digital speed camera – Pacific Highway, Nords Wharf

Location: Pacific Highway, between Nords Wharf Road and Flowers Drive, Nords Wharf.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	27/02/2003

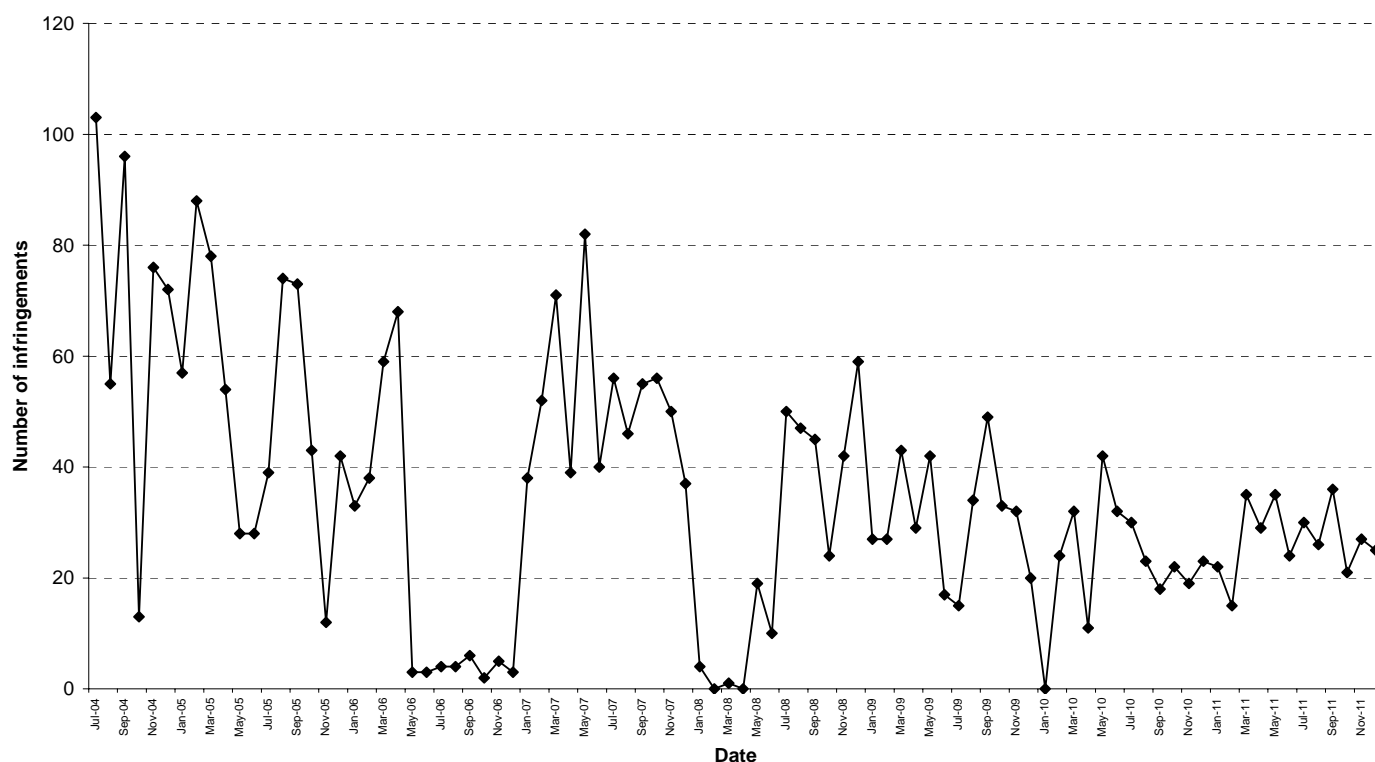
### Crashes at fixed speed camera location

Five years before – November 1997 – November 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	2	2	9	0.228
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	1	1	8	0.114



## Infringements at fixed speed camera location

PACIFIC HIGHWAY NORDS WHARF



### Summary

The fixed speed camera on the Pacific Highway, Nords Wharf was installed in February 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were nine crashes resulting in zero fatalities and two injuries. In the five year period 2006 – 2011 there were eight crashes at this location resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 11 per cent reduction in the annual average number of crashes and a 50 per cent reduction in the annual average number of casualties. This has been a saving of \$114,000 in costs to the community.

Provisional crash data show there were four crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

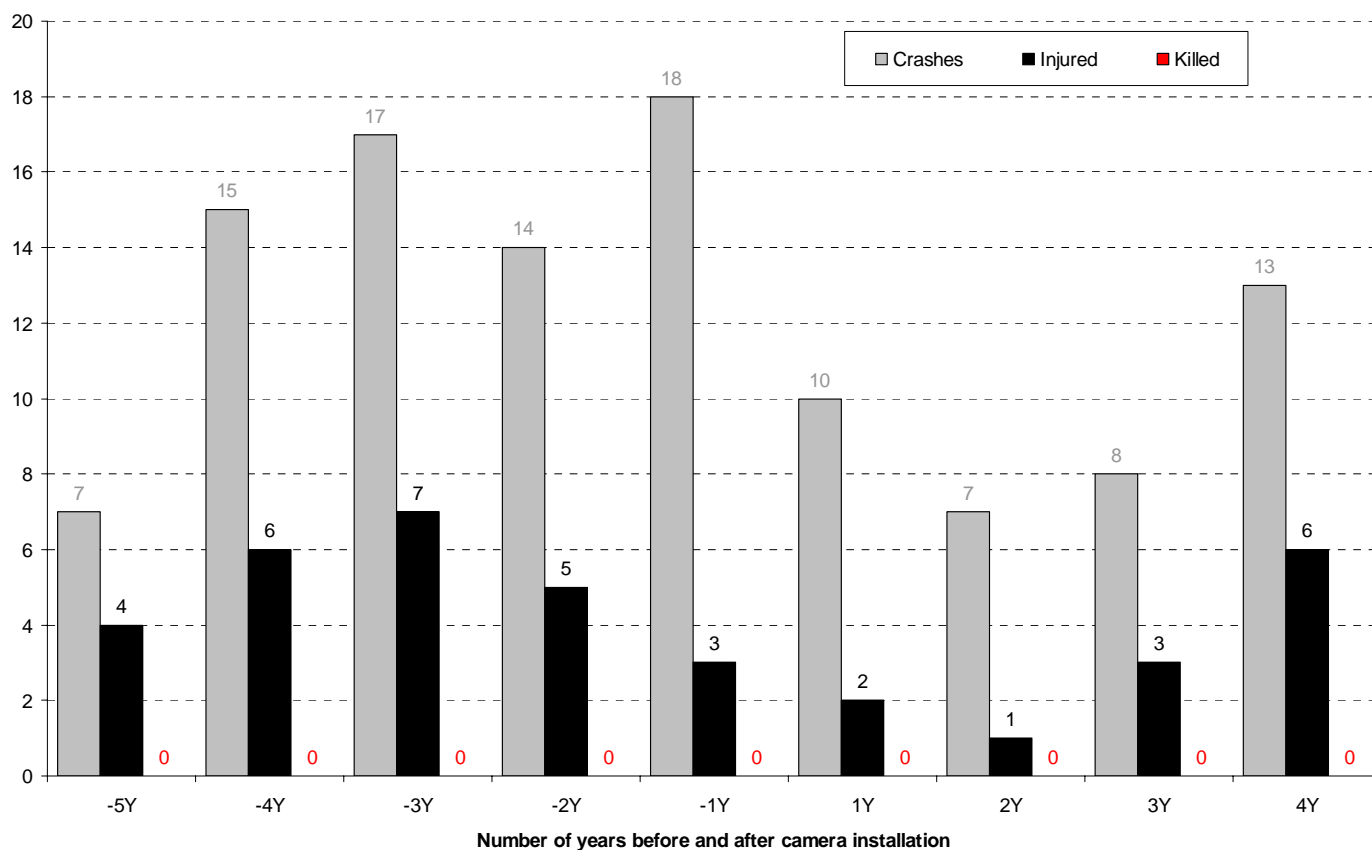
## Fixed digital speed camera – Harbord Road, North Curl Curl (school zone)

Location: Harbord Road, between Abbott Road and Brighton Street, North Curl Curl.  
 School zone: Freshwater Senior High School, Manly Selective Campus.

<b>Length description</b>	500m north of camera to 560m south of camera
<b>Total length (m)</b>	1060
<b>Started Infringing</b>	31/10/2007

### Crashes at fixed speed camera location

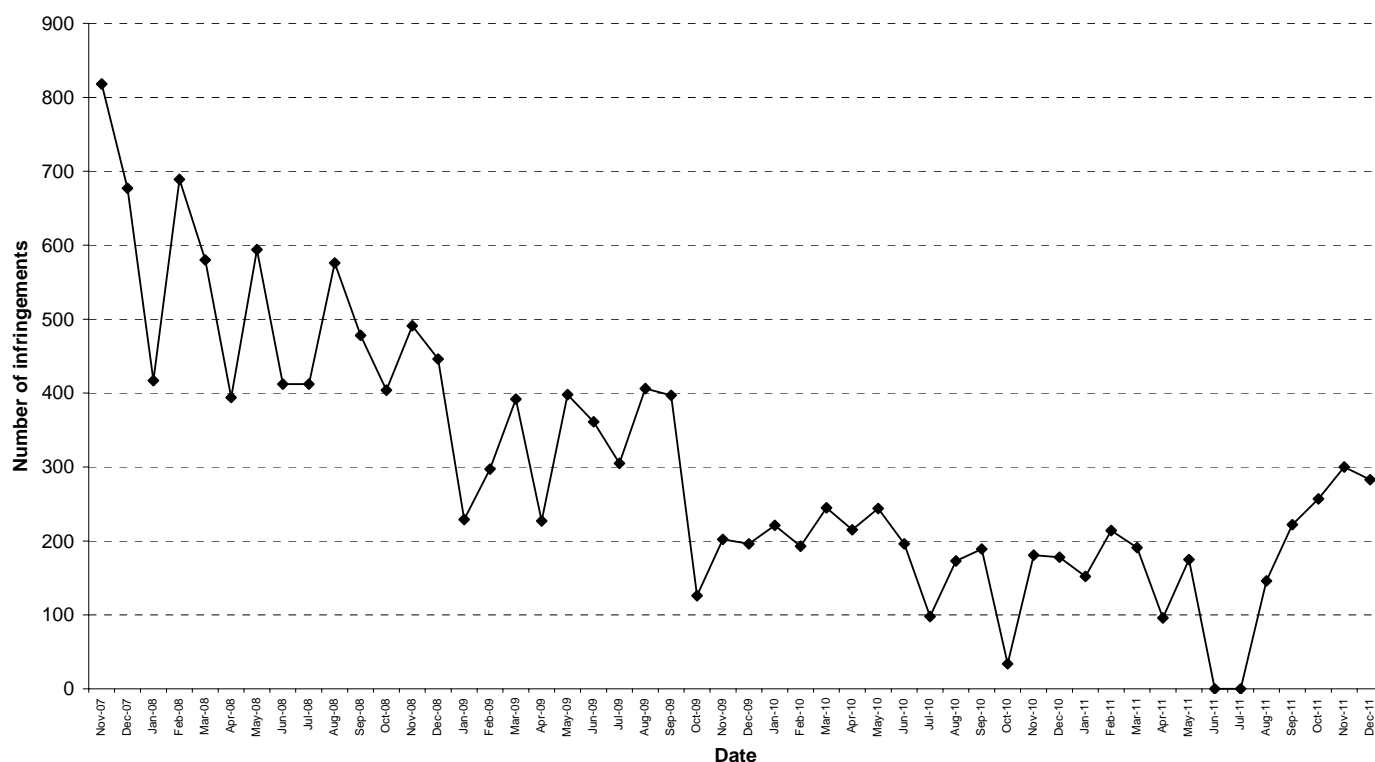
Five years before – July 2002 – July 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	25	25	71	2.85
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	12	12	38	1.368





## Infringements at fixed speed camera location

HARBORD ROAD NORTH CURL CURL



### Summary

The school zone fixed speed camera on Harbord Road, North Curl Curl was installed in October 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 71 crashes resulting in zero fatalities and 25 injuries. In the four year period 2007 – 2011 there were 38 crashes at this location resulting in zero fatalities and 12 injuries. When compared to the pre installation period, this is a 33 per cent reduction in the annual average number of crashes and a 40 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$912,000 in costs to the community.

Provisional crash data show there were 12 crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

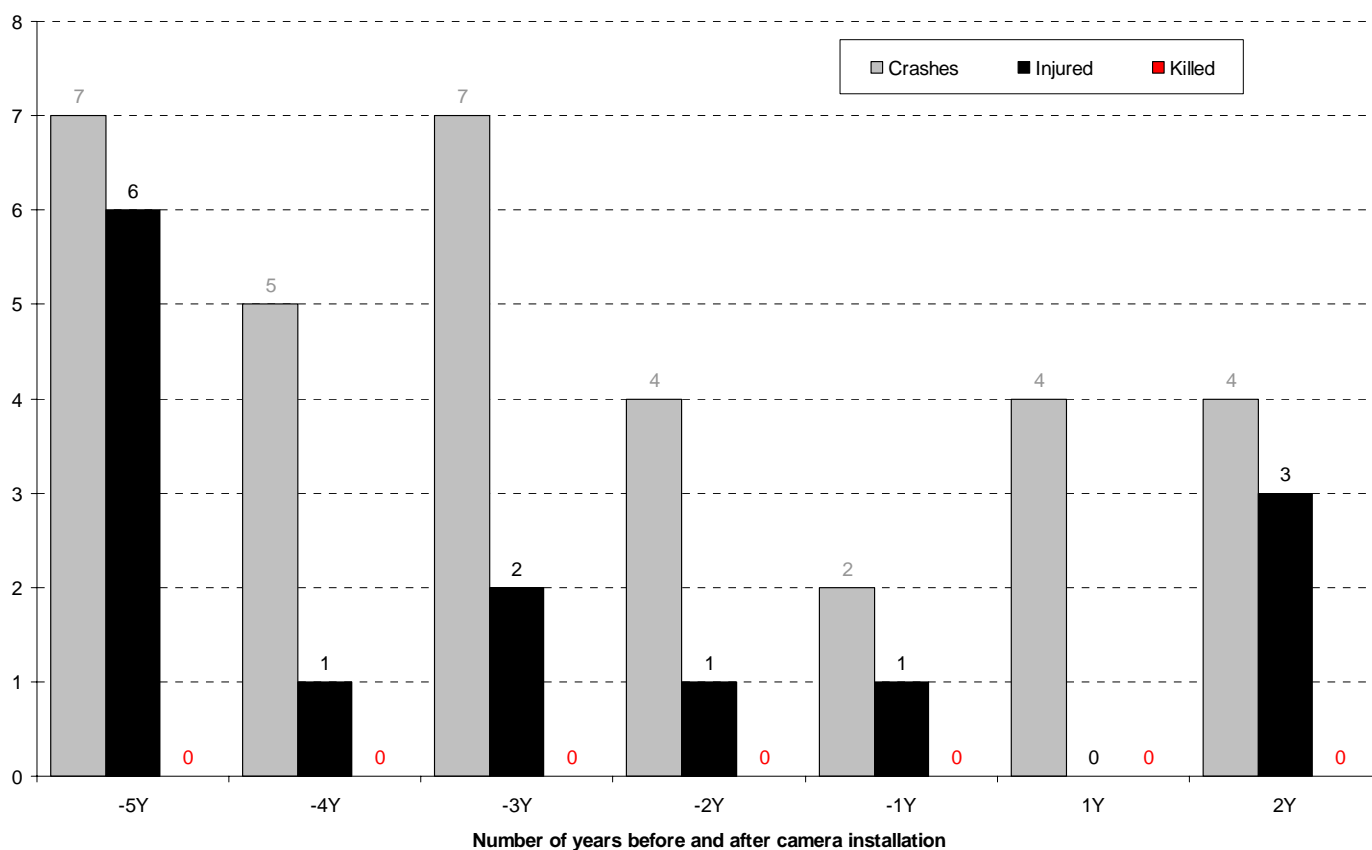
## Fixed digital speed camera – Pittwater Road, North Narrabeen (school zone)

Location: Narrabeen North Public School, Narrabeen Sports High, North Narrabeen.

<b>Length description</b>	330m south of camera to 260m north of camera
<b>Total length (m)</b>	590 (Patch to Patch)
<b>Started Infringing</b>	28/01/2009

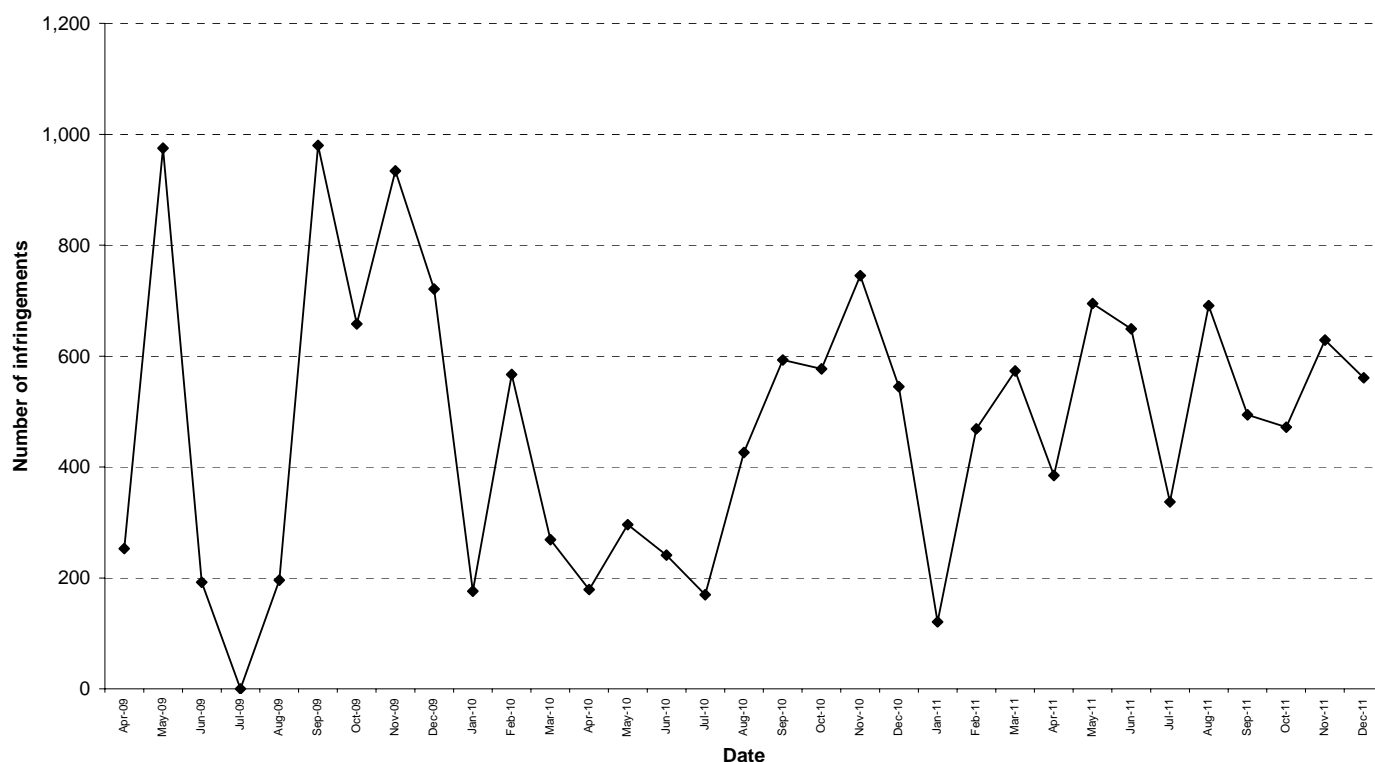
### Crashes at fixed speed camera location

Five years before – October 2003 – October 2008 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	11	11	25	1.254
After (most recent two year period) – 2009 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	3	3	8	0.342



## Infringements at fixed speed camera location

PITTWATER ROAD NORTH NARRABEEN



### Summary

The school zone fixed speed cameras on Pittwater Road, North Narrabeen were installed in January 2009. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 25 crashes resulting in zero fatalities and 11 injuries. In the two year period 2009 – 2011 there were eight crashes at this location resulting in zero fatalities and three injuries. When compared to the pre installation period, this is a 20 per cent reduction in the annual average number of crashes and a 32 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$159,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

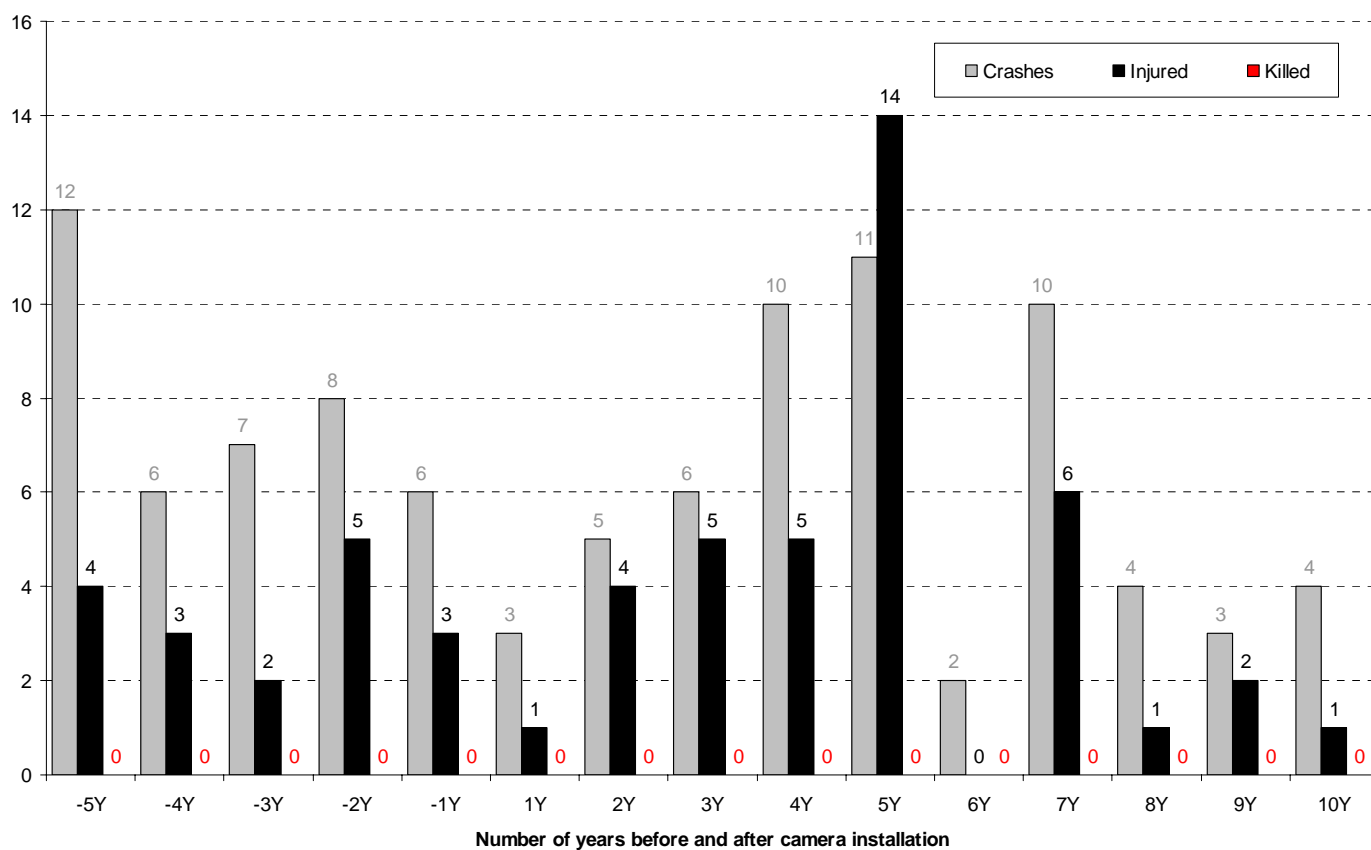
## Fixed digital speed camera – Pennant Hills Road, North Parramatta

Location: Pennant Hills Road, between Castle Street and Bellevue Street, North Parramatta.

<b>Length description</b>	390m west of camera to 610m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	30/11/2001

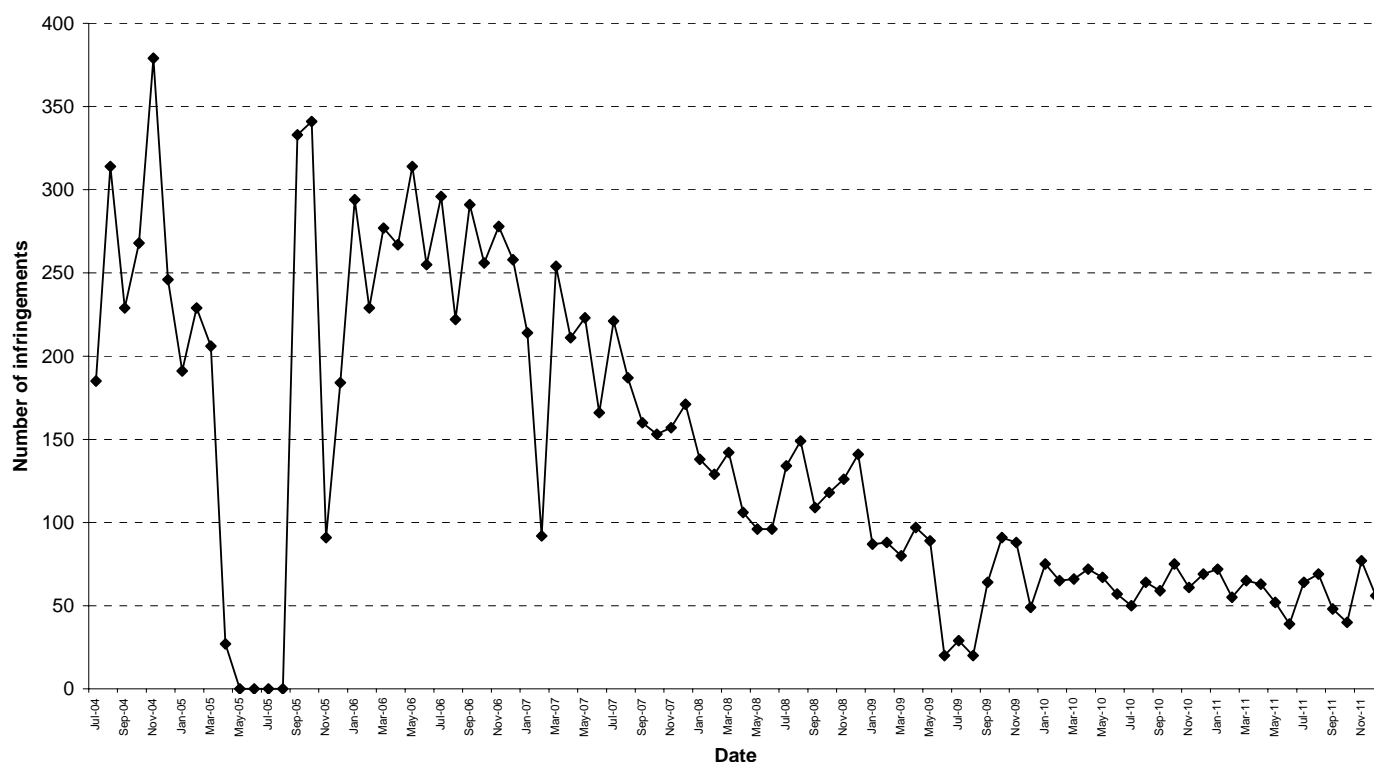
### Crashes at fixed speed camera location

Five years before – August 1996 – August 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	17	17	39	1.938
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	10	10	23	1.14



## Infringements at fixed speed camera location

PENNANT HILLS RD NORTH PARRAMATTA



### Summary

The fixed speed camera on Pennant Hills Road, North Parramatta was installed in November 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 39 crashes resulting in zero fatalities and 17 injuries. In the five year period 2006 – 2011 there were 23 crashes at this location resulting in zero fatalities and 10 injuries. When compared to the pre installation period, this is a 41 per cent reduction in the annual average number of crashes and a 41 per cent reduction in the annual average number of casualties. This has been a saving of \$798,000 in costs to the community.

Provisional crash data show there were four crashes resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

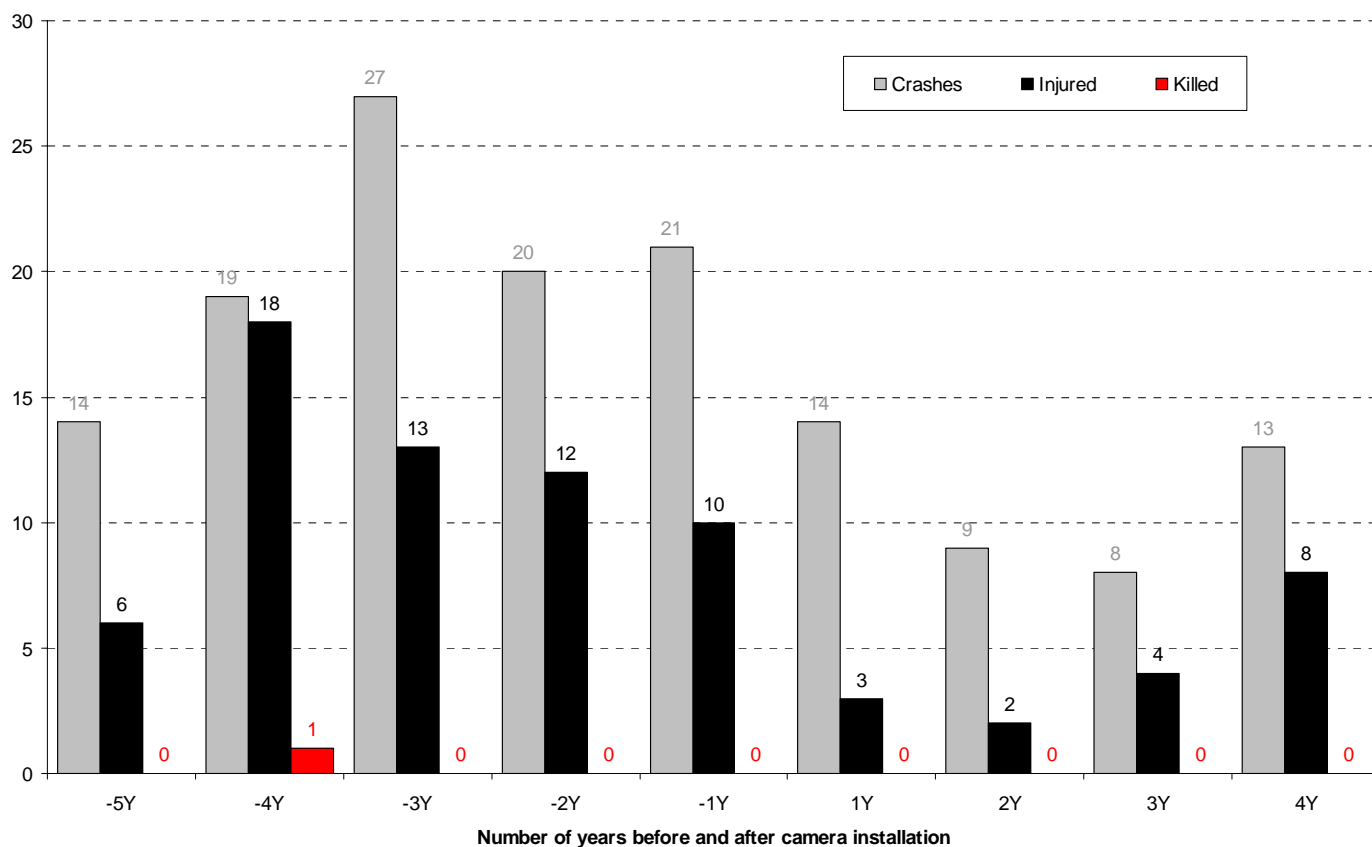
## Fixed digital speed camera – Pennant Hills Road, North Parramatta/ Oatlands (school zone)

Location: Pennant Hills Road, between Masons Drive and Suttor Avenue, North Parramatta/ Oatlands.  
 School zone: Burnside Public School, The Kings School, Redeemer Baptist School, Garfield Barwick School, American International School, Cumberland High School.

<b>Length description</b>	470m west of camera to 2300m east of camera
<b>Total length (m)</b>	2770 (Patch to Patch)
<b>Started Infringing</b>	10/04/2007

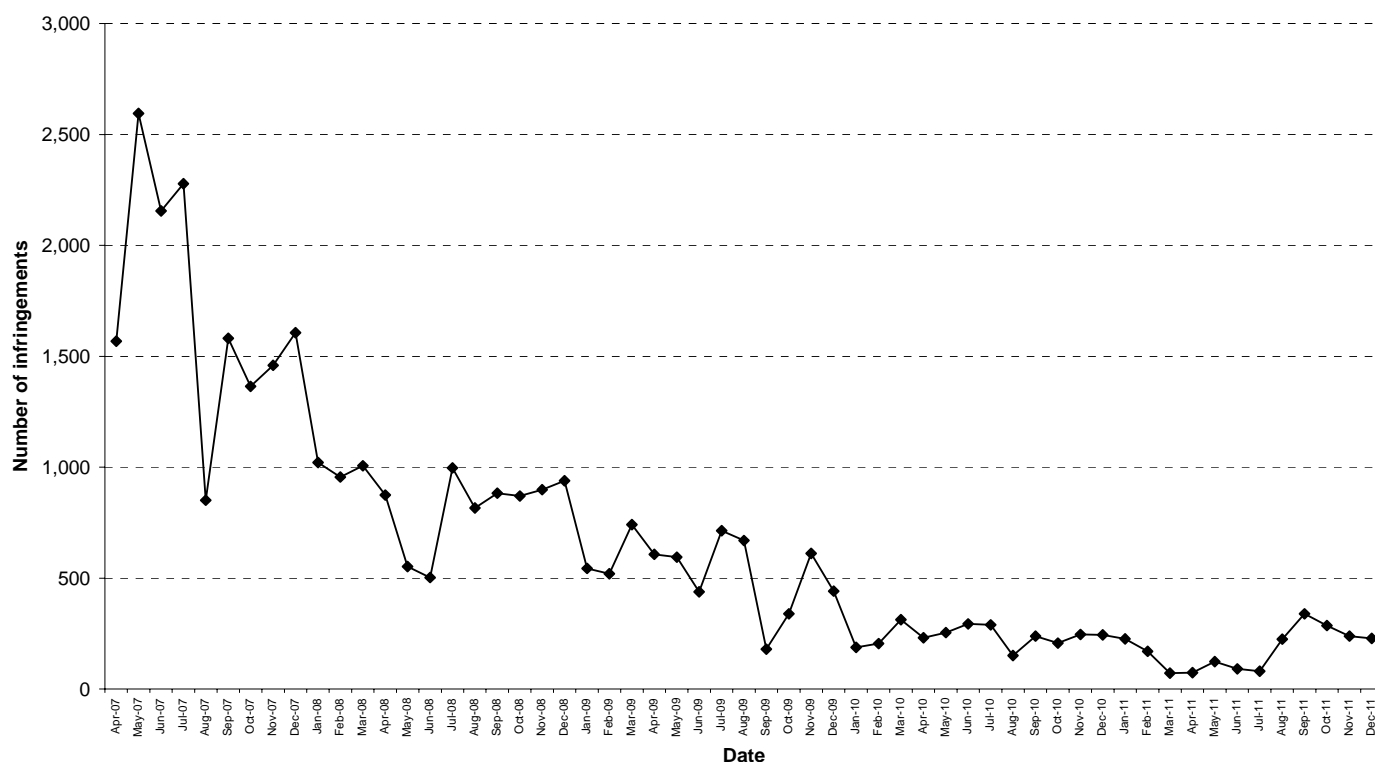
### Crashes at fixed speed camera location

Five years before – January 2002 – January 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	59	60	101	12.56
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	17	17	44	1.938



## Infringements at fixed speed camera location

PENNANT HILLS ROAD NTH PARRAMATTA / OATLANDS



### Summary

The school zone fixed speed cameras on Pennant Hills Road, North Parramatta/ Oatlands were installed in April 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 101 crashes resulting in one fatality and 59 injuries. In the four year period 2007 – 2011 there were 44 crashes at this location resulting in zero fatalities and 17 injuries. When compared to the pre installation period, this is a 46 per cent reduction in the annual average number of crashes and a 65 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$8.1 million in costs to the community.

Provisional crash data show there were seven crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

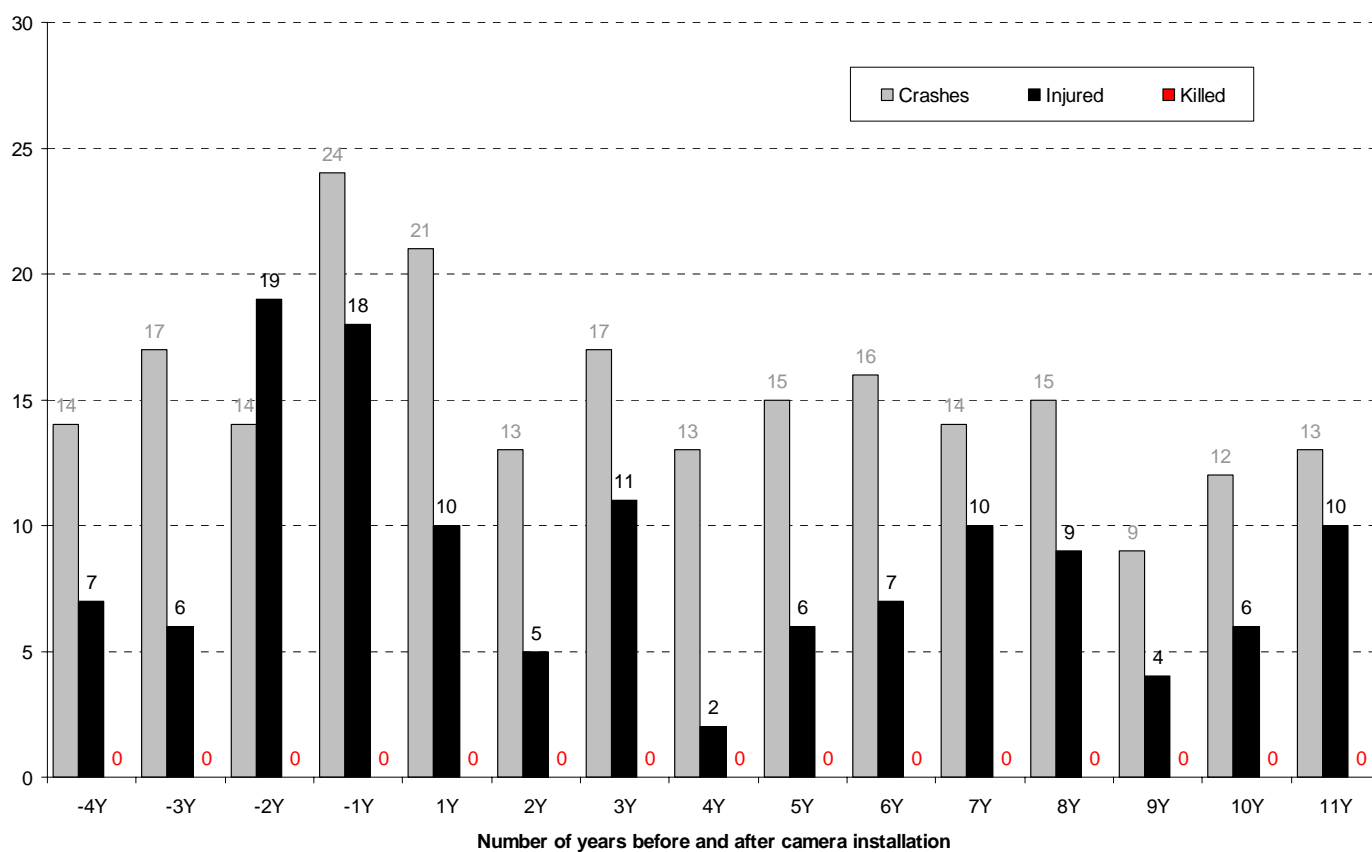
## Fixed digital speed camera – Princes Highway, North Wollongong

Location: Princes Highway, between Ajax Avenue and Exeter Avenue, North Wollongong.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	13/06/2000

### Crashes at fixed speed camera location

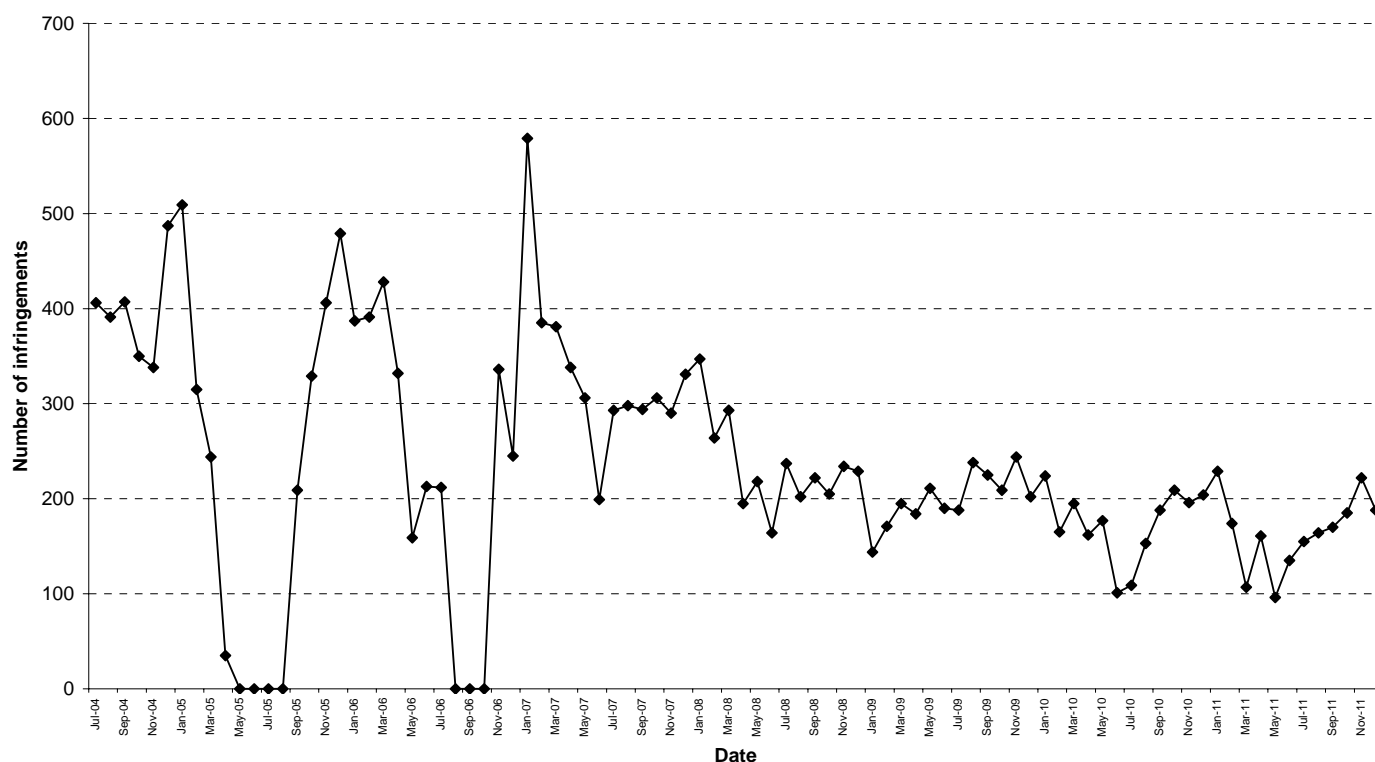
Four years before – March 1996 – March 2000 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	50	50	69	5.7
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	39	39	63	4.446





## Infringements at fixed speed camera location

PRINCES HIGHWAY WOLLONGONG



### Summary

The fixed speed camera on the Princes Highway, North Wollongong was installed in June 2006. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 69 crashes resulting in zero fatalities and 50 injuries. In the five year period 2006 – 2011 there were 63 crashes at this location resulting in zero fatalities and 39 injuries. When compared to the pre installation period, this is a 27 per cent reduction in the annual average number of crashes and a 38 per cent reduction in the annual average number of casualties. This has been a saving of \$2.6 million in costs to the community.

Provisional crash data show there were 14 crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

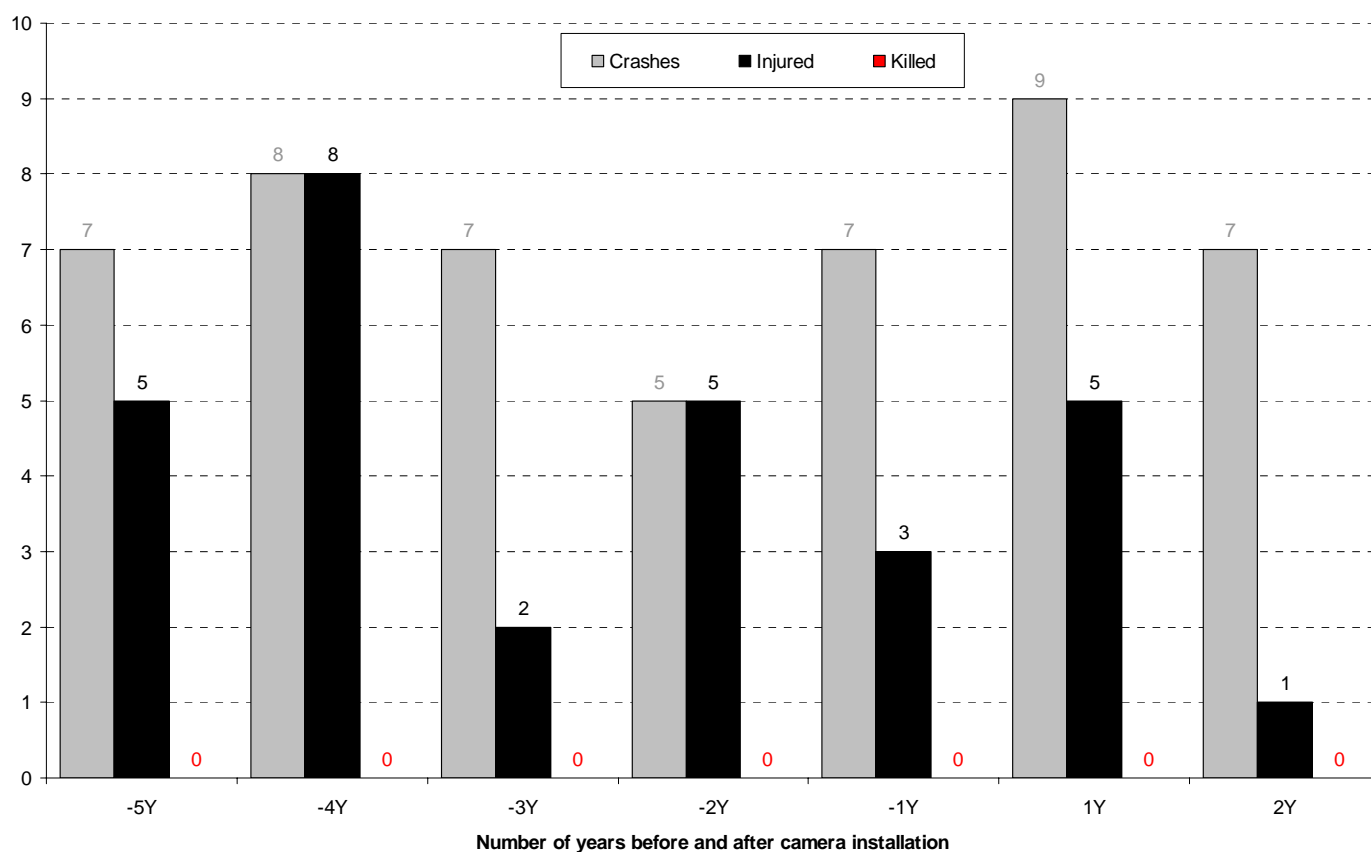
## Fixed digital speed camera – Woodville Road, Old Guildford (school zone)

Location: Woodville Road, between Orchardleigh Street and Middleton Road, Old Guildford.  
 School zone: Old Guildford Public School.

<b>Length description</b>	200m south of camera to 170m north of camera
<b>Total length (m)</b>	370
<b>Started Infringing</b>	30/01/2009

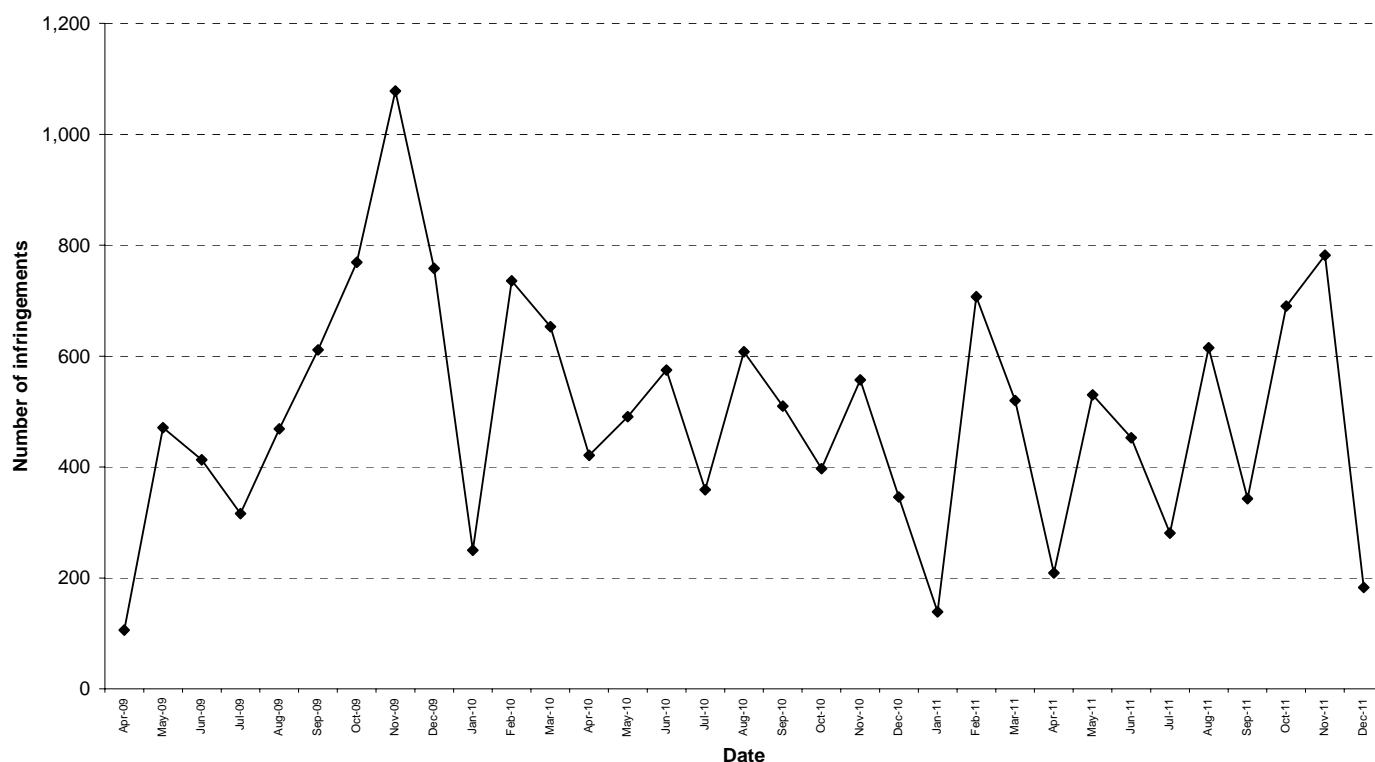
### Crashes at fixed speed camera location

Five years before – October 2003 – October 2008 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	23	23	34	2.622
After (most recent two year period) – 2009 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	16	0.684



## Infringements at fixed speed camera location

WOODVILLE ROAD OLD GUILDFORD / CHESTER HILL



### Summary

The school zone fixed speed cameras on Woodville Road, Old Guildford were installed in January 2009. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 34 crashes resulting in zero fatalities and 23 injuries. In the two year period 2009 – 2011 there were 16 crashes at this location resulting in zero fatalities and six injuries. When compared to the pre installation period, this is a 18 per cent increase in the annual average number of crashes. However, over the same period there has been a 35 per cent reduction in the annual average number of casualties, highlighting a reduction in crash severity. To date, this has been a saving of \$364,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

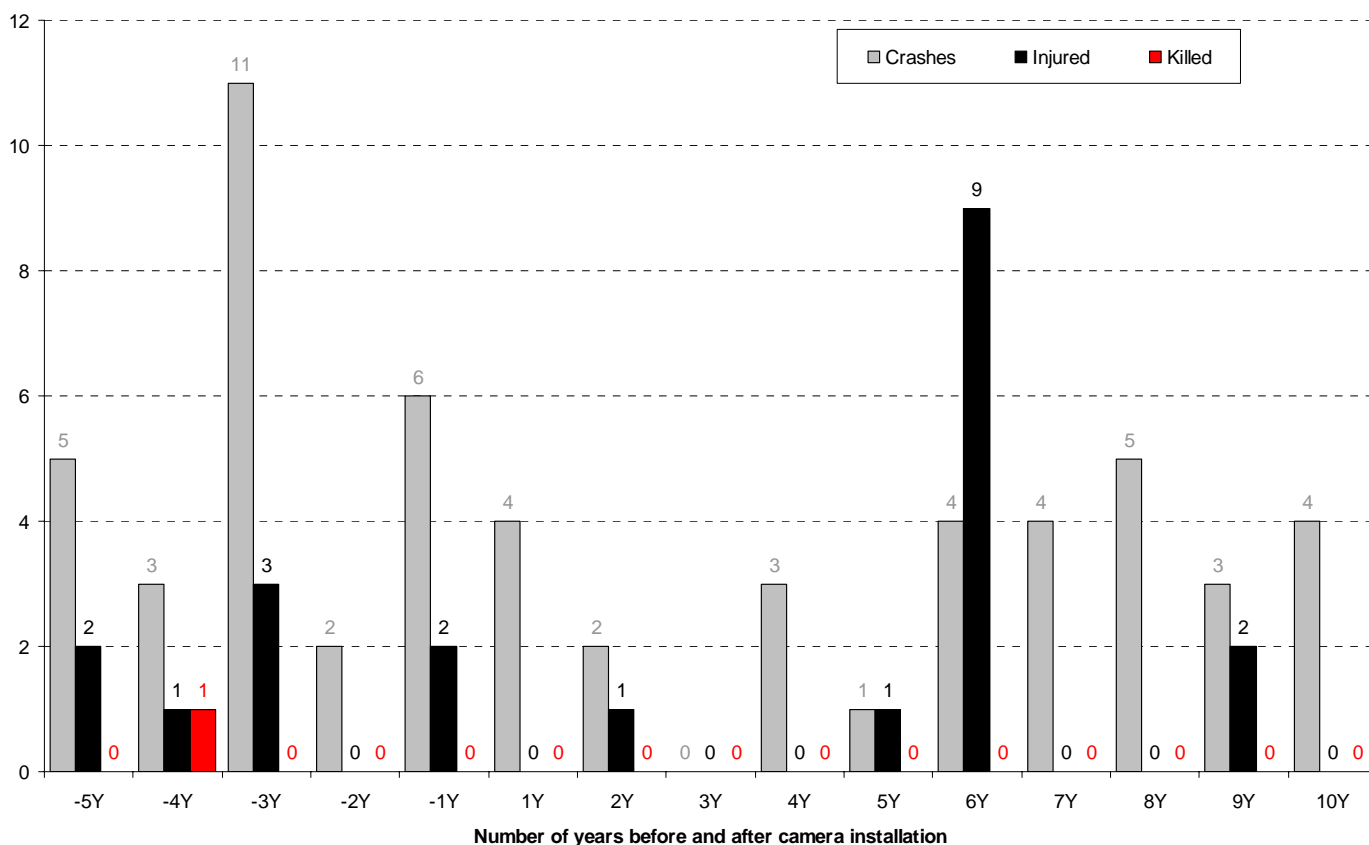
### Fixed digital speed camera – F3 Freeway, Ourimbah

Location: F3 Freeway, between Dogtrap Road Overpass and Ourimbah Creek Road, Ourimbah.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	6/12/2001

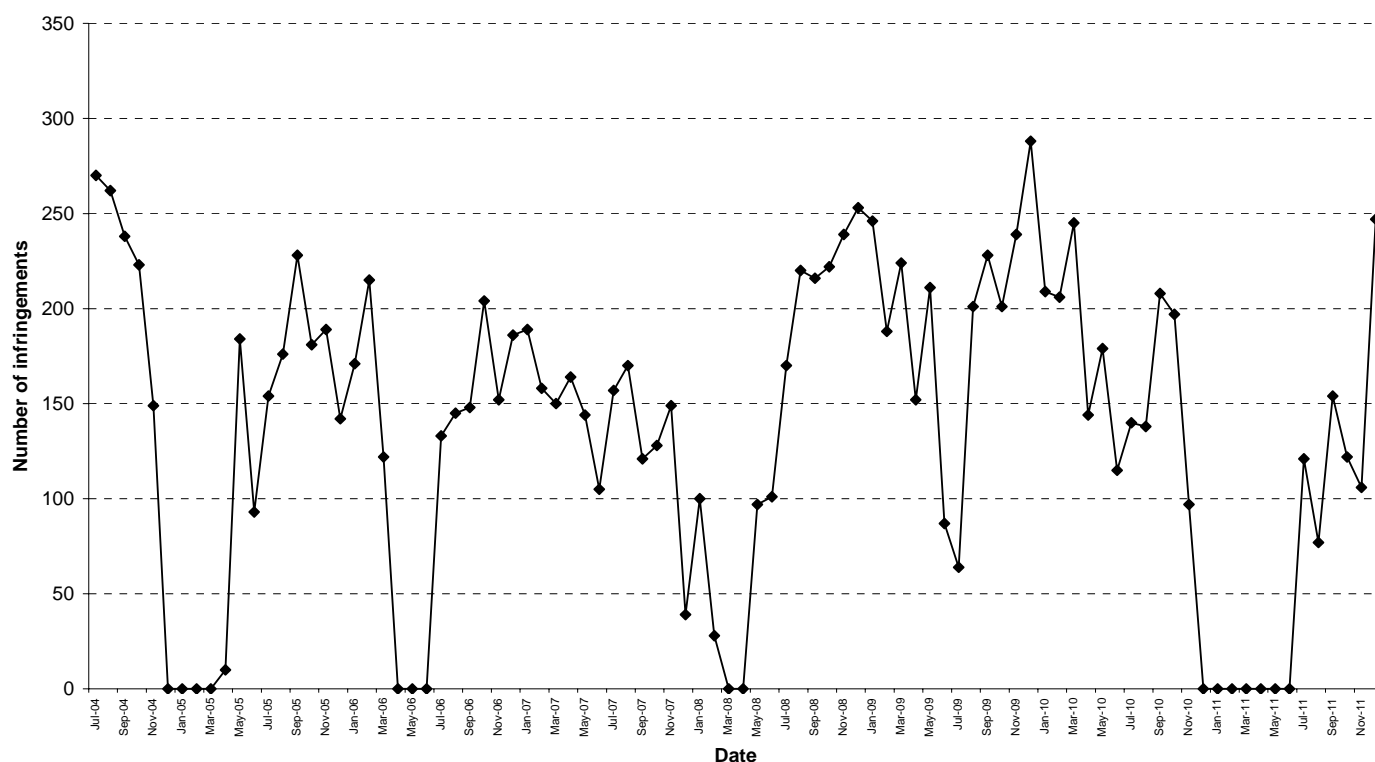
### Crashes at fixed speed camera location

Five years before – September 1996 – September 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	8	9	27	6.746
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	11	11	20	1.254



## Infringements at fixed speed camera location

F3 FREEWAY OURIMBAH



### Summary

The fixed speed camera on the F3 Freeway, Ourimbah was installed in December 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 27 crashes resulting in one fatality and eight injuries. In the five year period 2006 – 2011 there were 20 crashes at this location resulting in zero fatalities and 11 injuries.

Provisional crash data show there were four crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

Based on the assessment criteria the fixed speed camera on the F3 Freeway, Ourimbah was identified for review. Crashes have reduced at this location, however casualties have increased when comparing the five years prior to the current five year analysis period. A more detailed analysis of the crashes indicates that the number of casualty crashes has reduced by 50 per cent from eight to four in the analysis period. In 2007 there were two single vehicle crashes in wet weather which resulted in multiple injuries which have significantly influenced the effectiveness result.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The extended period of camera downtime at this location from December 2010 to June 2011 was due to roadworks and camera maintenance..

Fixed speed camera enforcement is undertaken on the F3 Freeway due to the difficulties enforcing speeding through other methods on a high speed, high volume road. Based on the reduction in crashes and casualty crashes at this location, and the difficulties associated with undertaking other enforcement at this location, it is recommended that this camera is retained.

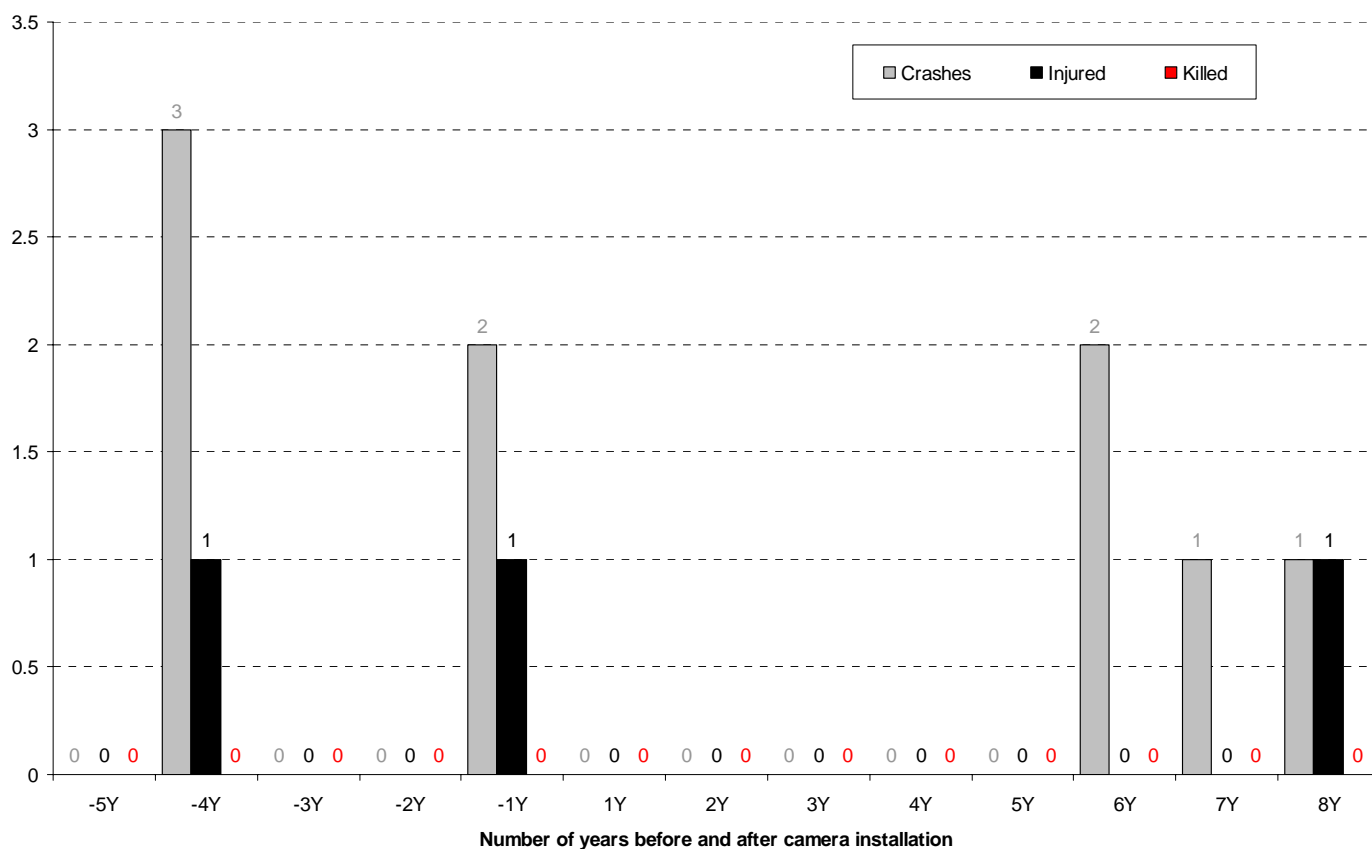
## Fixed digital speed camera – Pacific Highway, Ourimbah (school zone)

Location: Pacific Highway, between Yates Road and Dog Trap Road, Ourimbah.  
 School zone: Ourimbah Primary School.

<b>Length description</b>	210m south of camera to 150m north of camera
<b>Total length (m)</b>	360
<b>Started Infringing</b>	15/07/2003 (camera 1 – northbound) 18/02/2008 (camera 2 – southbound)

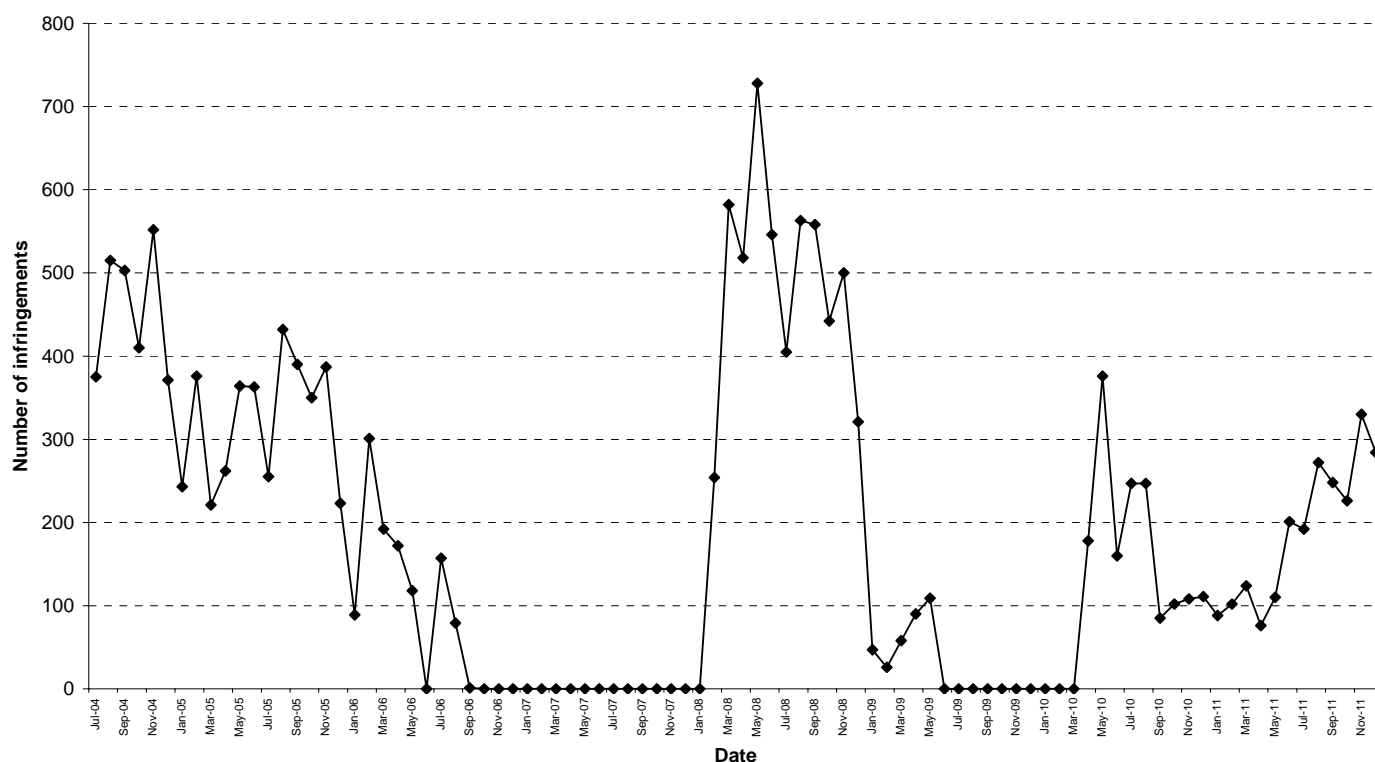
### Crashes at fixed speed camera location

Five years before – April 1998 – April 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	2	2	5	0.228
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	1	1	4	0.114



## Infringements at fixed speed camera location

PACIFIC HIGHWAY OURIMBAH



### Summary

The school zone fixed speed cameras on the Pacific Highway, Ourimbah were installed in July 2003 (northbound) and February 2008 (southbound). There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were five crashes resulting in zero fatalities and two injuries. In the five year period 2006 – 2011 there were four crashes at this location resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 20 per cent reduction in the annual average number of crashes and a 50 per cent reduction in the annual average number of casualties. This has been a saving of \$114,000 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements in February 2008 may be attributed to the installation of camera 2, enforcing southbound traffic. Extended periods of camera downtime at this location were due to significant road upgrades.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

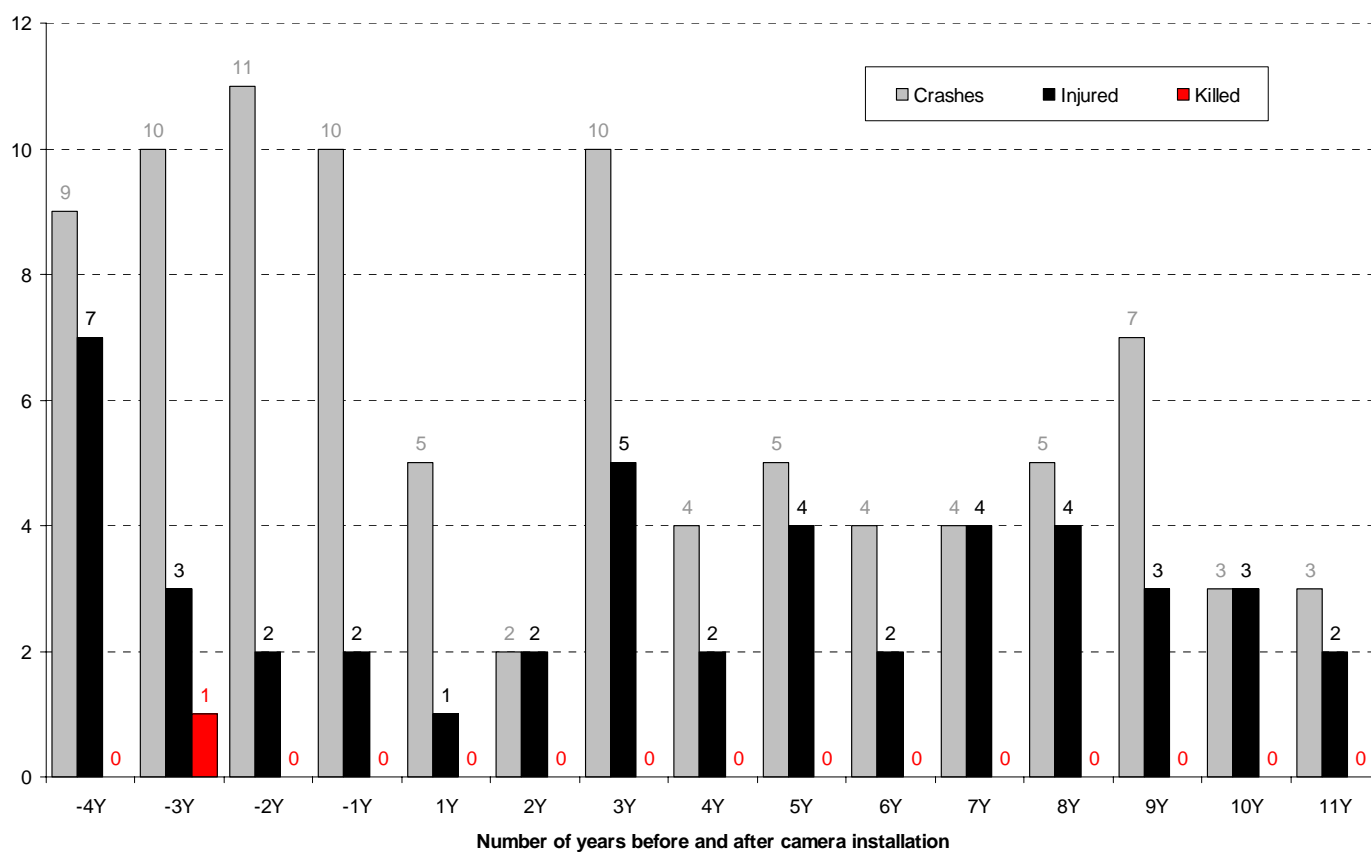
## Fixed digital speed camera – Gibson Avenue, Padstow

Location: Gibson Avenue, between Turvey Street and Bryant Street, Padstow.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	03/07/2000

### Crashes at fixed speed camera location

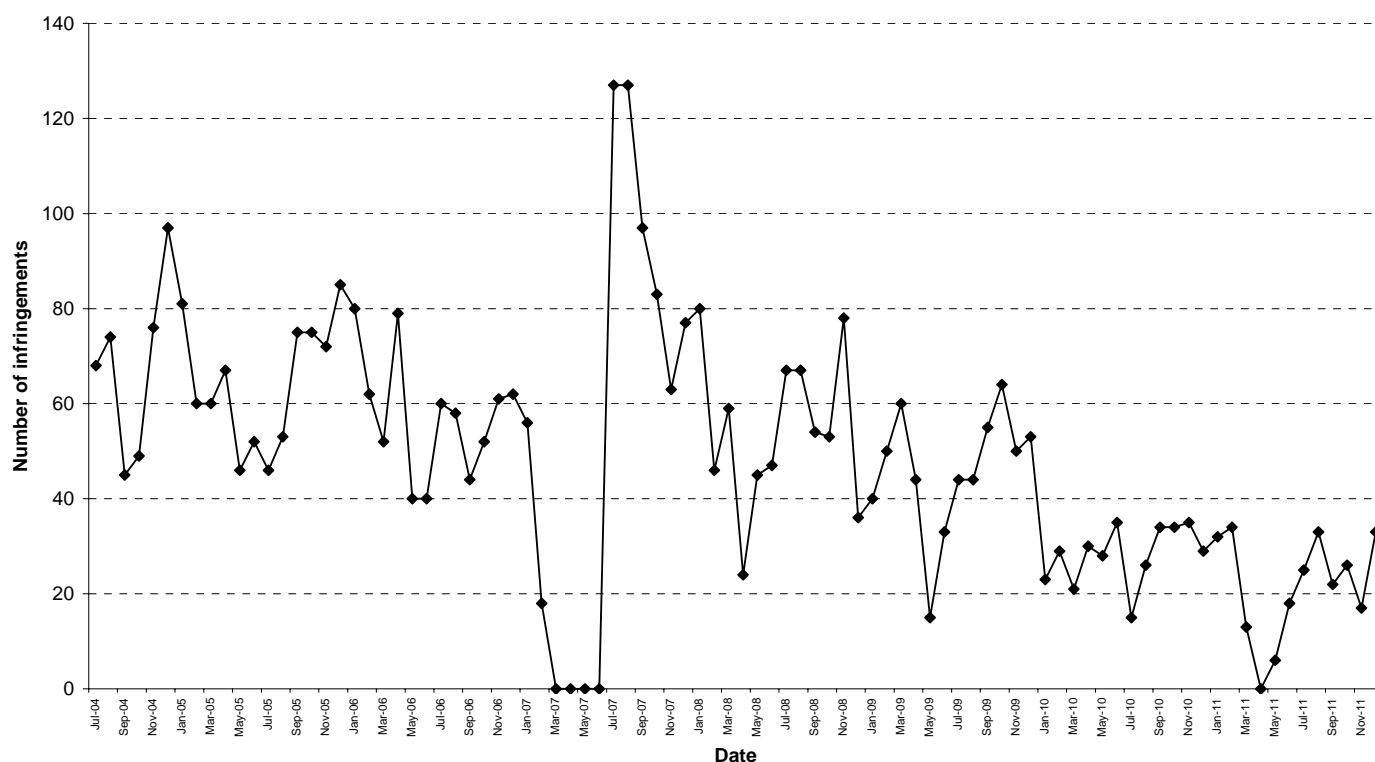
Four years before – April 1996 – April 2000 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	14	15	40	7.43
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	16	16	22	1.824





## Infringements at fixed speed camera location

GIBSON AVENUE PADSTOW



### Summary

The fixed speed camera on Gibson Avenue, Padstow was installed in July 2000. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 40 crashes resulting in one fatality and 14 injuries. In the five year period 2006 – 2011 there were 22 crashes at this location resulting in zero fatalities and 16 injuries. When compared to the pre installation period, this is a 56 per cent reduction in the annual average number of crashes and a 15 per cent reduction in the annual average number of casualties. This has been a saving of \$7.463 million in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

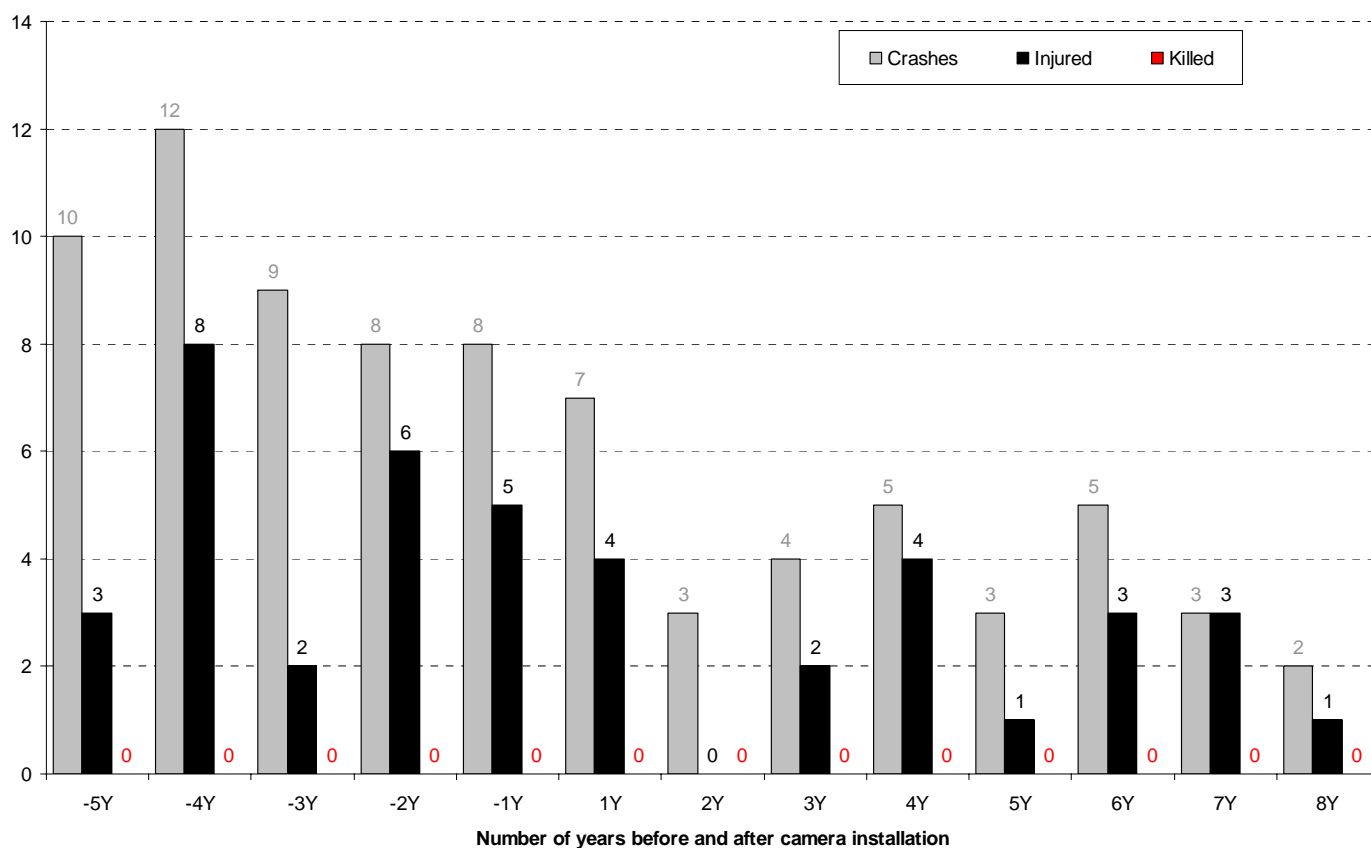
## Fixed digital speed camera – Henry Lawson Drive, Peakhurst

Location: Henry Lawson Drive, between Belmont Road and Ogilvy Street, Peakhurst.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	29/01/2003

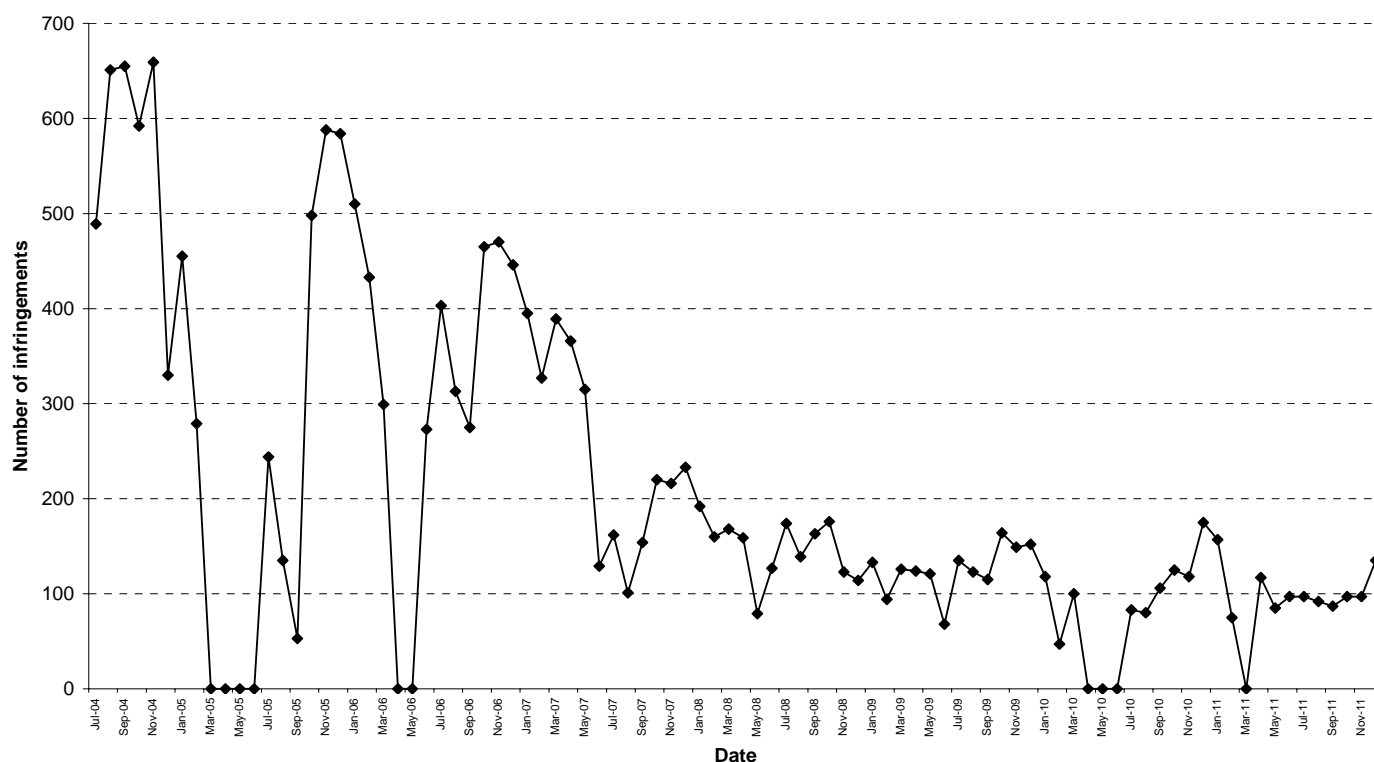
### Crashes at fixed speed camera location

Five years before – October 1997 – October 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	24	24	47	2.736
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	12	12	18	1.368



## Infringements at fixed speed camera location

HENRY LAWSON DRIVE PEAKHURST



### Summary

The fixed speed camera on Henry Lawson Drive, Peakhurst was installed in January 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 47 crashes resulting in zero fatalities and 24 injuries. In the five year period 2006 – 2011 there were 18 crashes at this location resulting in zero fatalities and 12 injuries. When compared to the pre installation period, this is a 62 per cent reduction in the annual average number of crashes and a 50 per cent reduction in the annual average number of casualties. This has been a saving of \$1.3 million in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Forest Road, Penshurst (school zone)

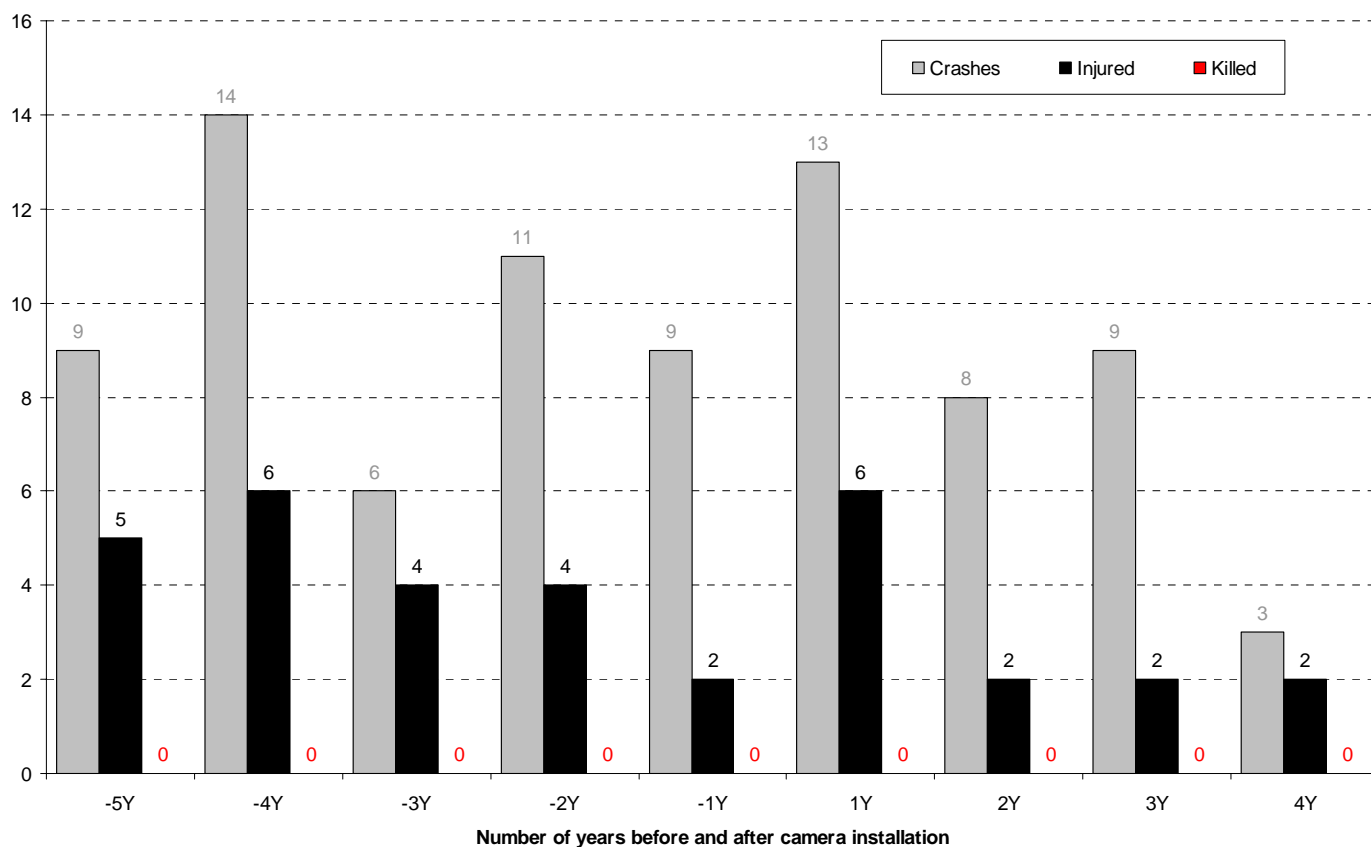
Location: Forest Road, between Penshurst Street and St Georges Street, Penshurst.

School zone: Penshurst Girls Campus – Georges River College, Penshurst Public School, St Declan's Primary School.

<b>Length description</b>	340m east of camera to 280m west of camera
<b>Total length (m)</b>	620 (Patch to Patch)
<b>Started Infringing</b>	17/10/2007

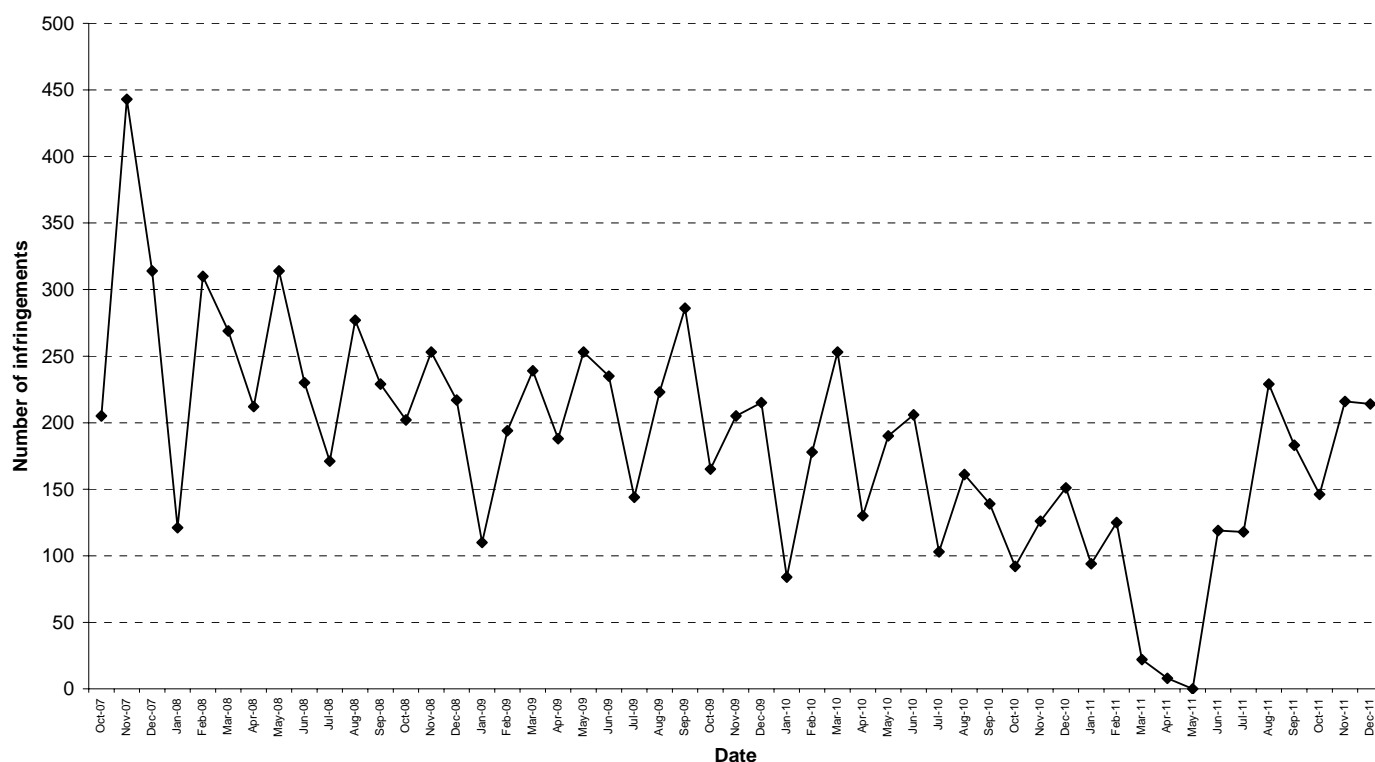
### Crashes at fixed speed camera location

Five years before – July 2002 – July 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	21	21	49	2.394
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	12	12	33	1.368



## Infringements at fixed speed camera location

FOREST ROAD PENSURST



### Summary

The school zone fixed speed camera on Forest Road, Penshurst was installed in October 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 49 crashes resulting in zero fatalities and 21 injuries. In the four year period 2007 – 2011 there were 33 crashes at this location resulting in zero fatalities and 12 injuries. When compared to the pre installation period, this is a 16 per cent reduction in the annual average number of crashes and a 29 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$547,000 in costs to the community.

Provisional crash data show there were three crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

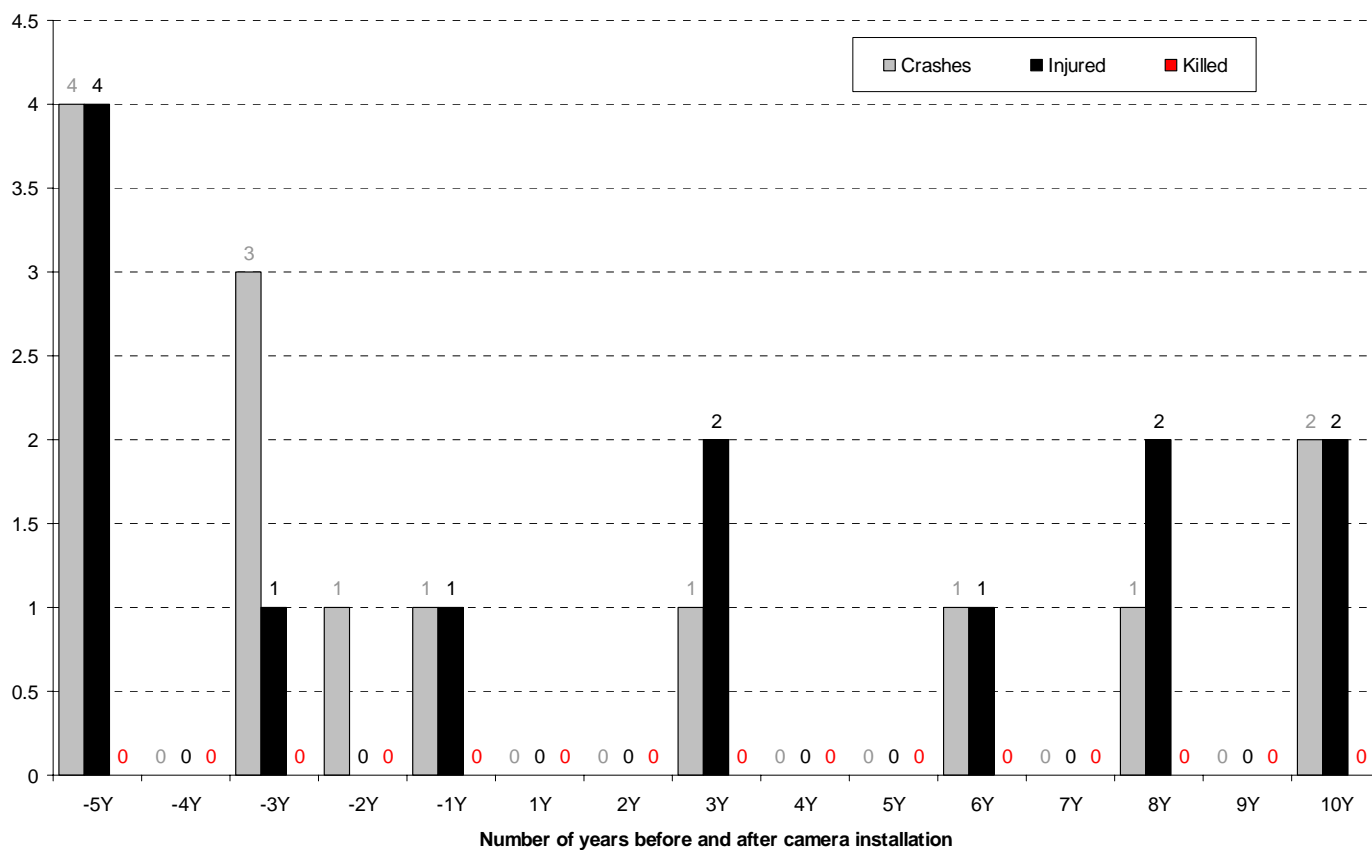
## Fixed digital speed camera – Henry Lawson Drive, Picnic Point

Location: Henry Lawson Drive, between Carinya Road and The River Road, Picnic Point.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	16/05/2001

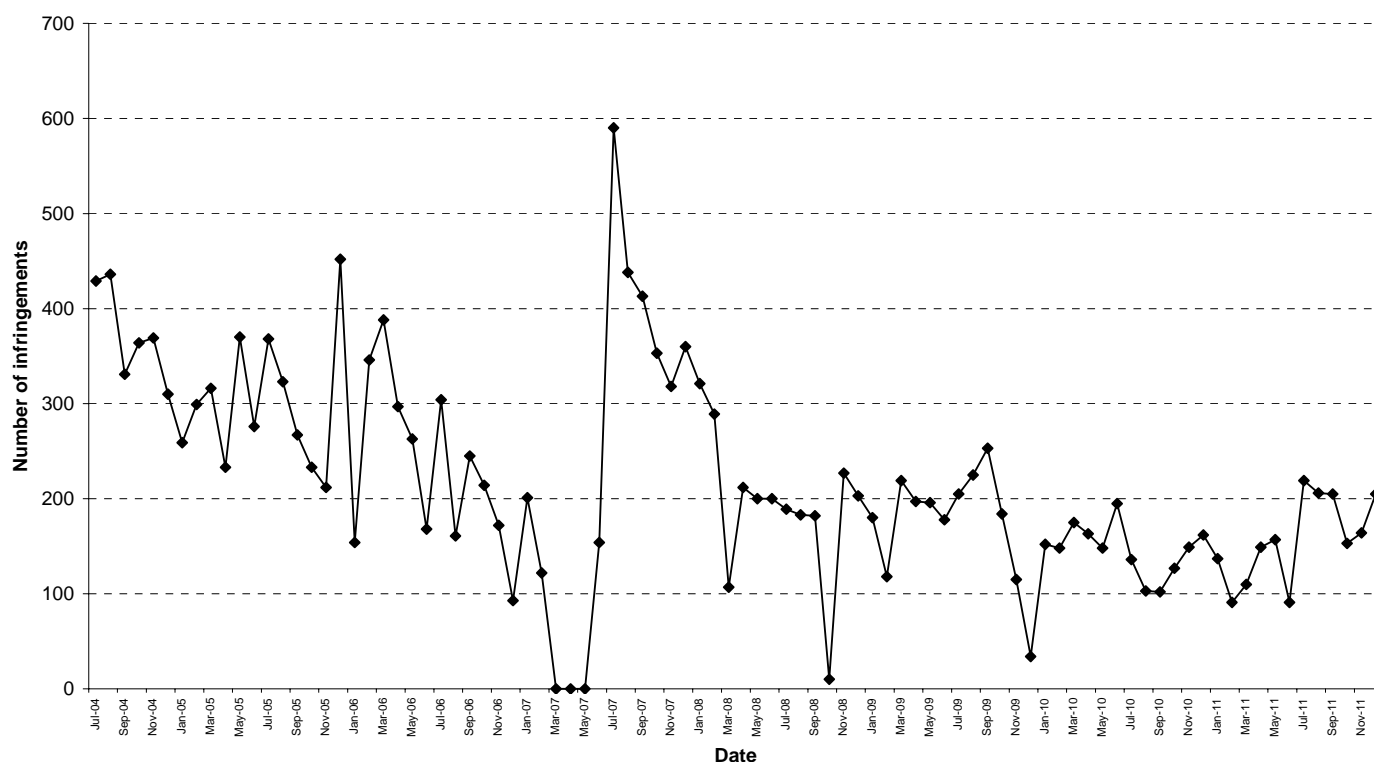
### Crashes at fixed speed camera location

Five years before – February 1996 – February 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	9	0.684
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	5	5	4	0.57



## Infringements at fixed speed camera location

HENRY LAWSON DRIVE PICNIC POINT



### Summary

The fixed speed camera on Henry Lawson Drive, Picnic Point was installed in May 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were nine crashes resulting in zero fatalities and six injuries. In the five year period 2006 – 2011 there were four crashes at this location resulting in zero fatalities and five injuries. When compared to the pre installation period, this is a 56 per cent reduction in the annual average number of crashes and a 17 per cent reduction in the annual average number of casualties. This has been a saving of \$114,000 in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

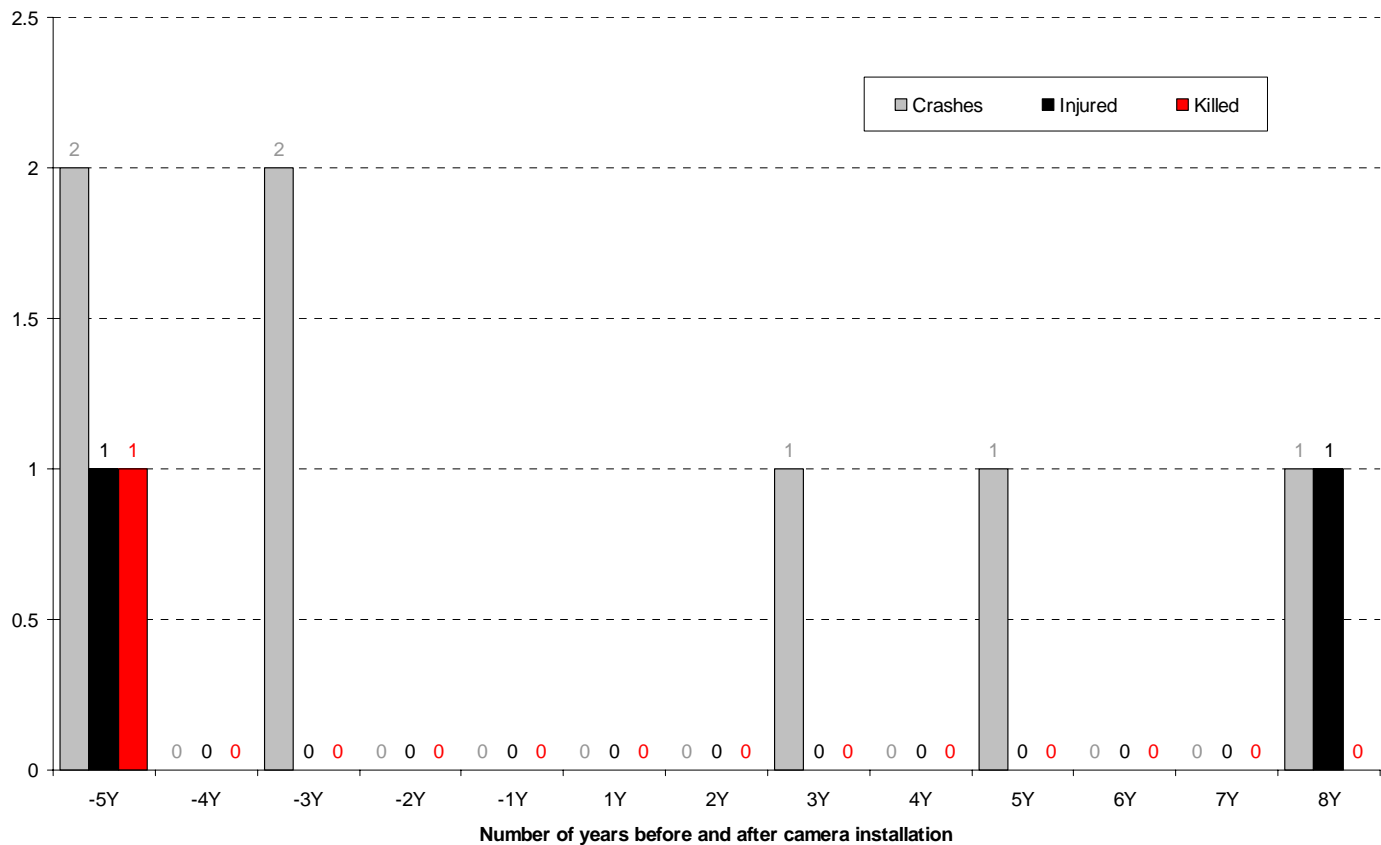
### Fixed digital speed camera – Lanyon Drive, Queanbeyan

Location: Lanyon Drive, between Tompsitt Drive and Hoover Road, Queanbeyan.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	02/05/2003

### Crashes at fixed speed camera location

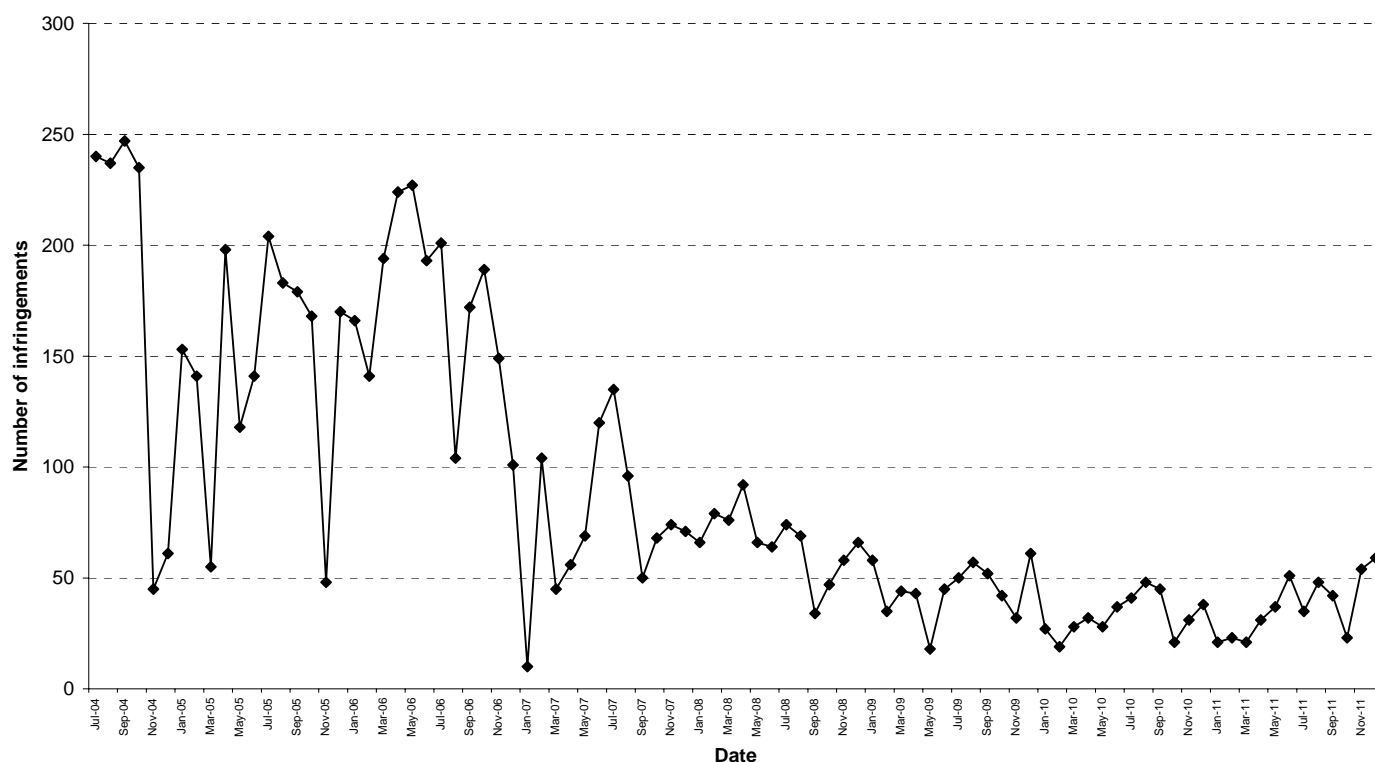
Five years before – February 1998 – February 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	1	2	4	5.948
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	1	1	2	0.114





## Infringements at fixed speed camera location

LANYON DRIVE QUEANBEYAN



### Summary

The fixed speed camera on Lanyon Drive, Queanbeyan was installed in May 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were four crashes resulting in one fatality and one injury. In the five year period 2006 – 2011 there were two crashes at this location resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 50 per cent reduction in the annual average number of crashes and a 50 per cent reduction in the annual average number of casualties. This has been a saving of \$5.834 million in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

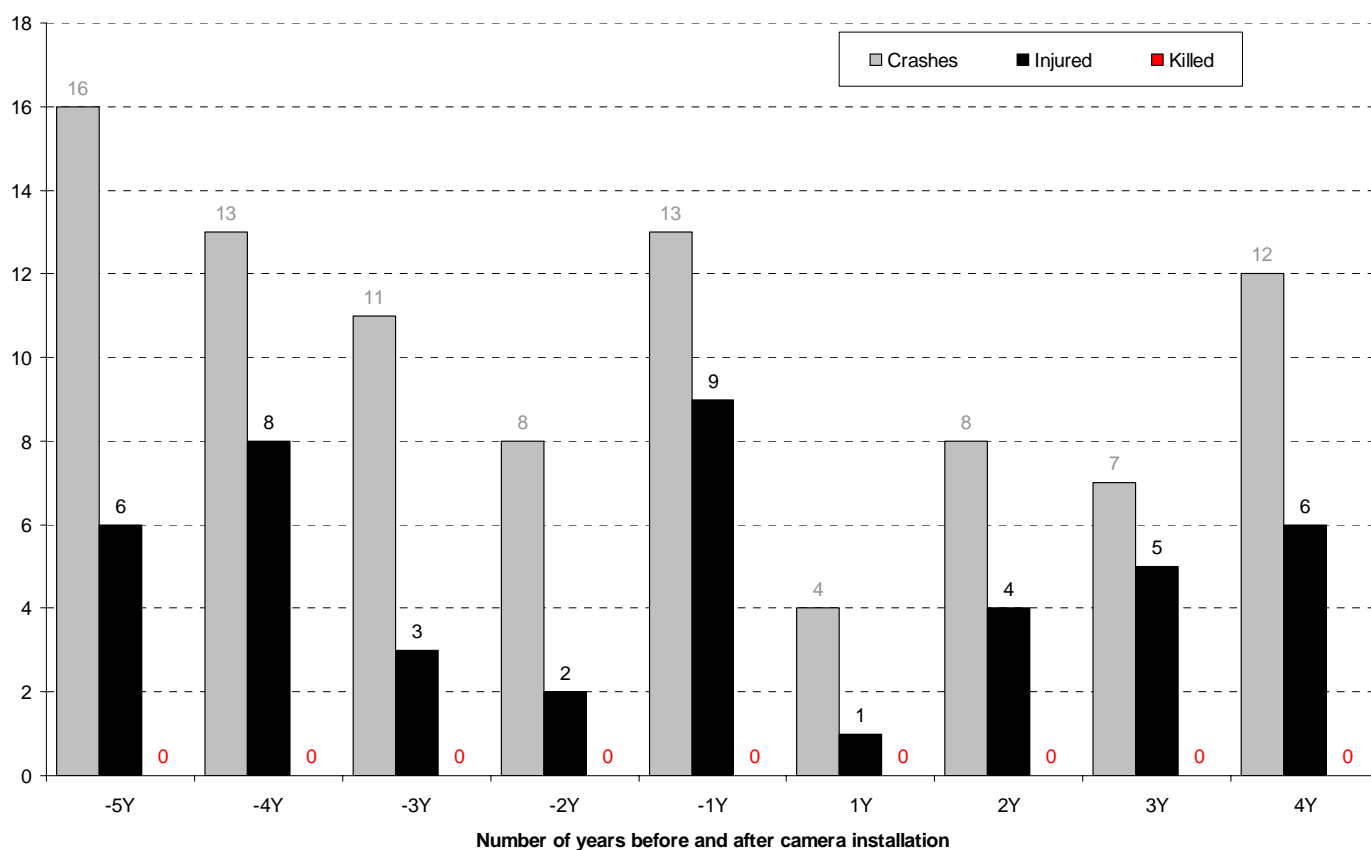
## Fixed digital speed camera – Avoca Street, Randwick (school zone)

Location: Avoca Street, between Howard Street and Barker Road, Randwick.  
 School zone: Randwick Boys High School, Randwick Girls High School.

<b>Length description</b>	350m south of camera to 210m north of camera
<b>Total length (m)</b>	560 (Patch to Patch)
<b>Started Infringing</b>	29/06/2007

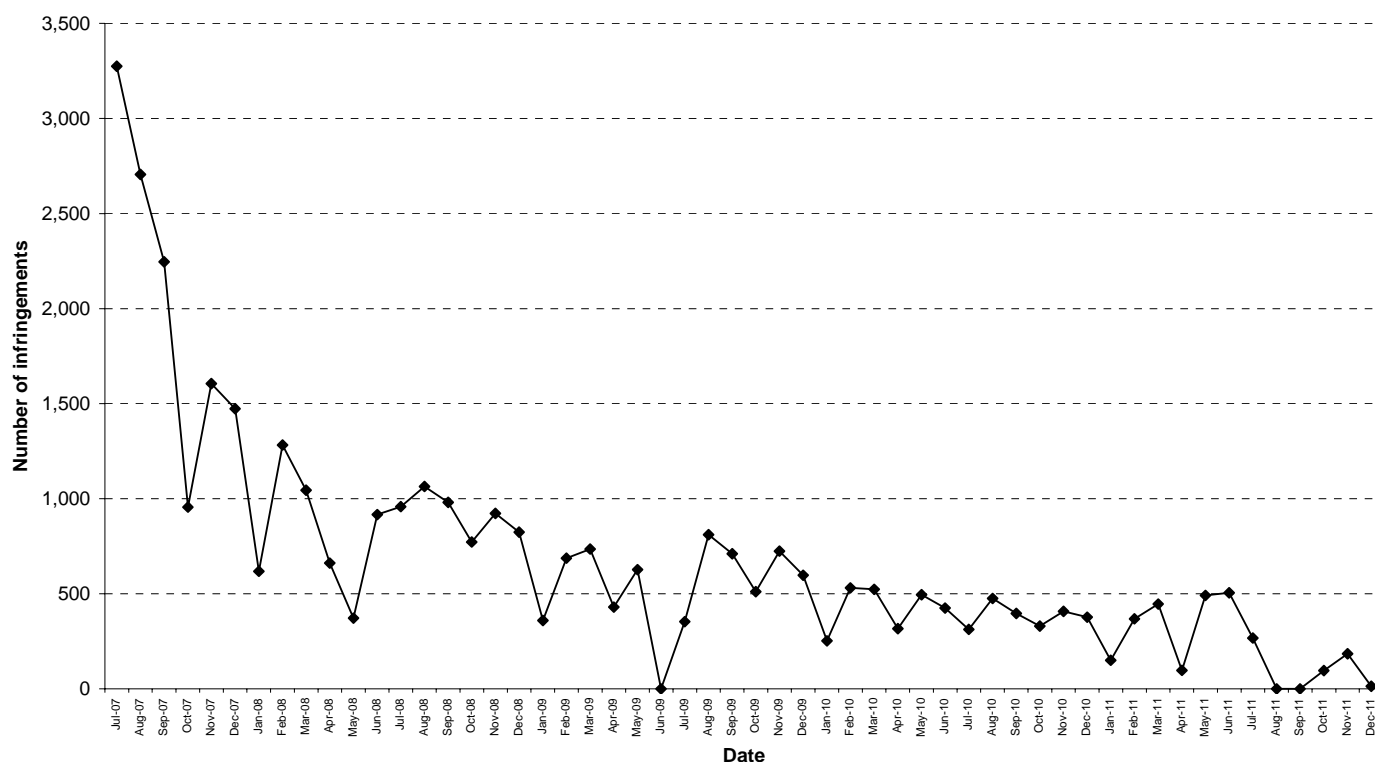
### Crashes at fixed speed camera location

Five years before – March 2002 – March 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	28	28	61	3.192
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	16	16	31	1.824



## Infringements at fixed speed camera location

AVOCA STREET RANDWICK



### Summary

The school zone fixed speed camera on Avoca Street, Randwick was installed in June 2007. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 61 crashes resulting in zero fatalities and 28 injuries. In the four year period 2007 – 2011 there were 31 crashes at this location resulting in zero fatalities and 16 injuries. When compared to the pre installation period, this is a 36 per cent reduction in the annual average number of crashes and a 29 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$729,000 in costs to the community.

Provisional crash data show there were seven crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

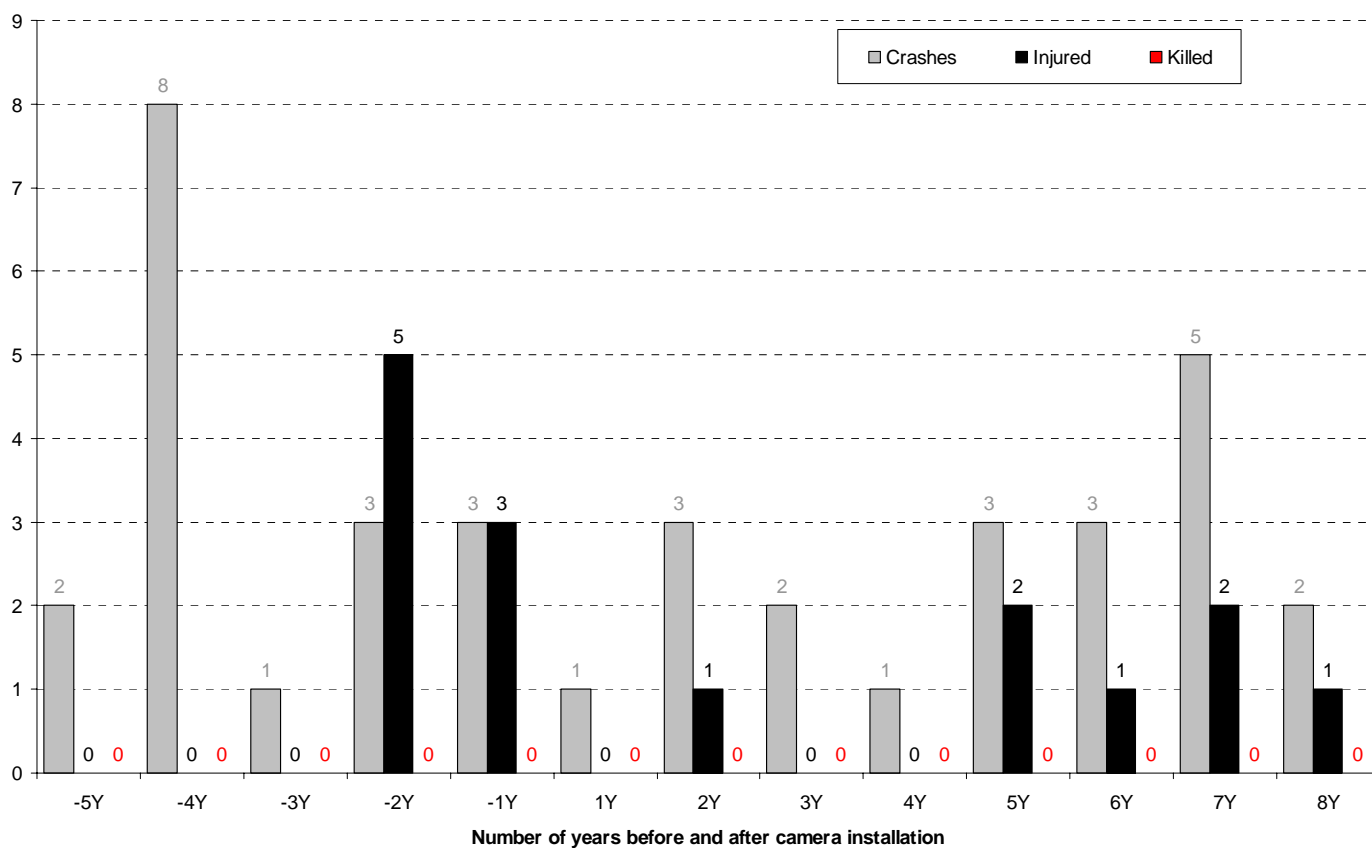
## Fixed digital speed camera – McCaffrey Drive, Rankin Park

Location: McCaffrey Drive, between Duval Street and Orara Street, Rankin Park.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	29/04/2003

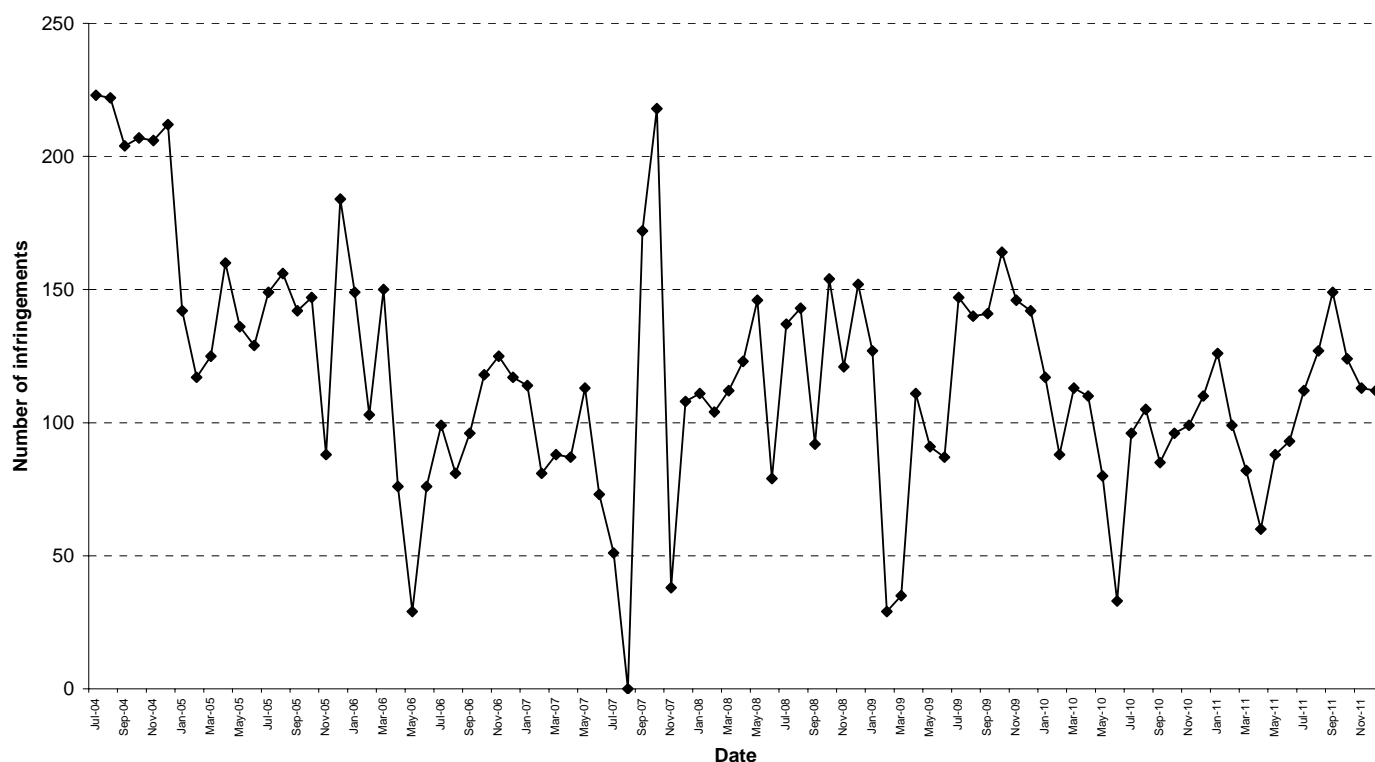
### Crashes at fixed speed camera location

Five years before – January 1998 – January 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	8	8	17	0.912
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	14	0.684



## Infringements at fixed speed camera location

MCCAFFREY DRIVE RANKIN PARK



### Summary

The fixed speed camera on McCaffrey Drive, Rankin Park was installed in April 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 17 crashes resulting in zero fatalities and eight injuries. In the five year period 2006 – 2011 there were 14 crashes at this location resulting in zero fatalities and six injuries. When compared to the pre installation period, this is a 18 per cent reduction in the annual average number of crashes and a 25 per cent reduction in the annual average number of casualties. This has been a saving of \$228,000 in costs to the community.

Provisional crash data show there were five crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Botany Road, Rosebery/Alexandria (school zone)

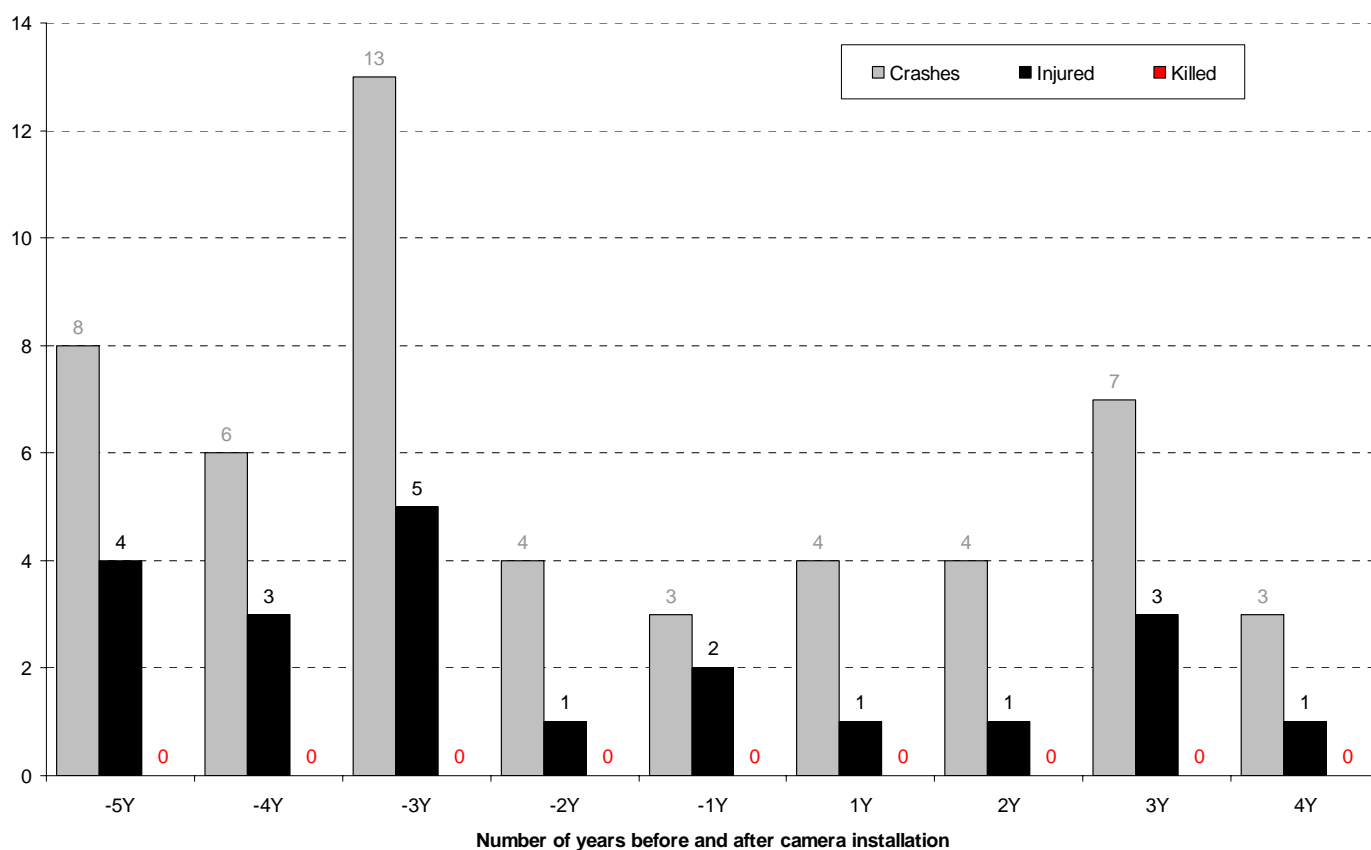
Location: Botany Road, between Gardeners Road and Gillespie Street, Rosebery/Alexandria.

School zone: Gardeners Road Public School.

<b>Length description</b>	150m south of camera to 210m north of camera
<b>Total length (m)</b>	360 (Patch to Patch)
<b>Started Infringing</b>	13/06/2007

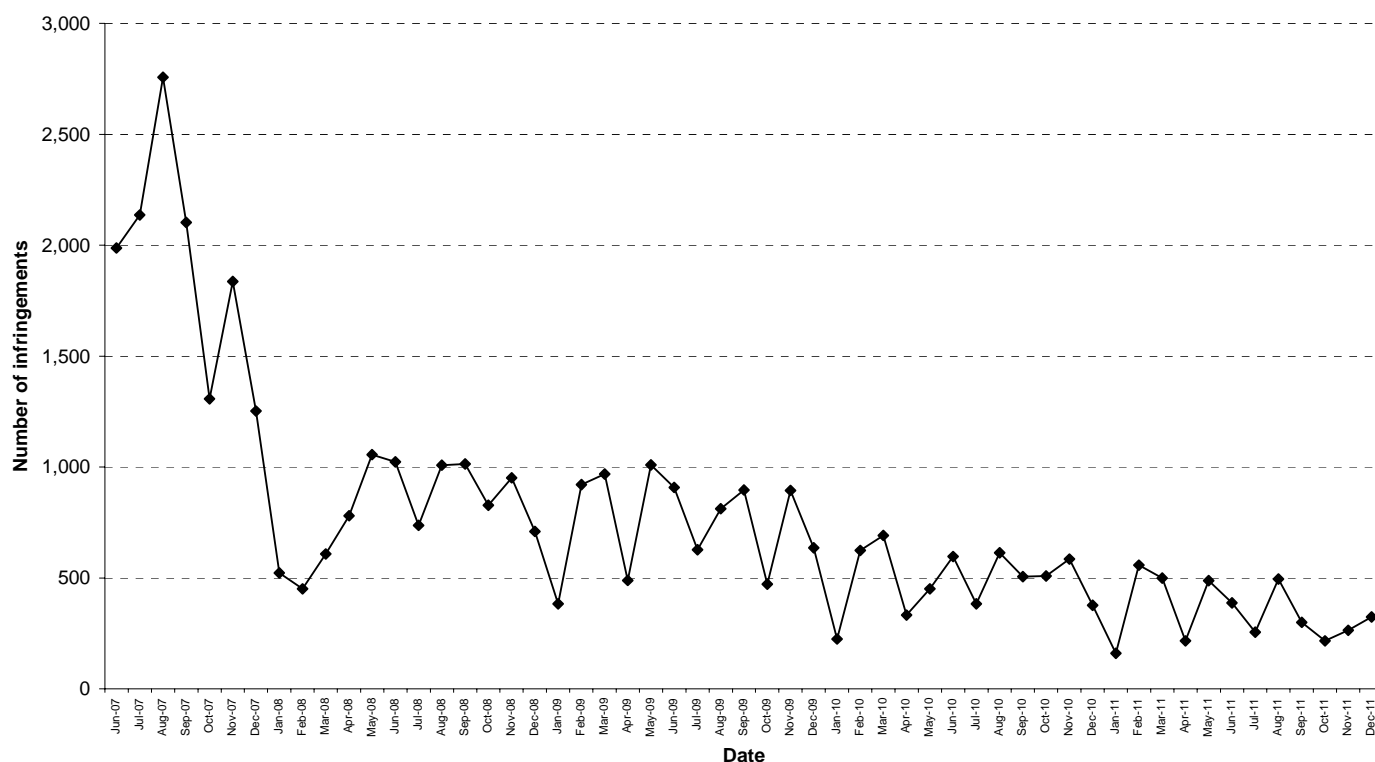
### Crashes at fixed speed camera location

Five years before – March 2002 – March 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	15	15	34	1.71
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	18	0.684



## Infringements at fixed speed camera location

BOTANY ROAD ALEXANDRIA \ ROSEBERY



### Summary

The school zone fixed speed cameras on Botany Road, Rosebery/ Alexandria were installed in June 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 34 crashes resulting in zero fatalities and 15 injuries. In the four year period 2007 – 2011 there were 18 crashes at this location resulting in zero fatalities and six injuries. When compared to the pre installation period, this is a 34 per cent reduction in the annual average number of crashes and a 50 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$684,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Victoria Road, Rydalmere (school zone)

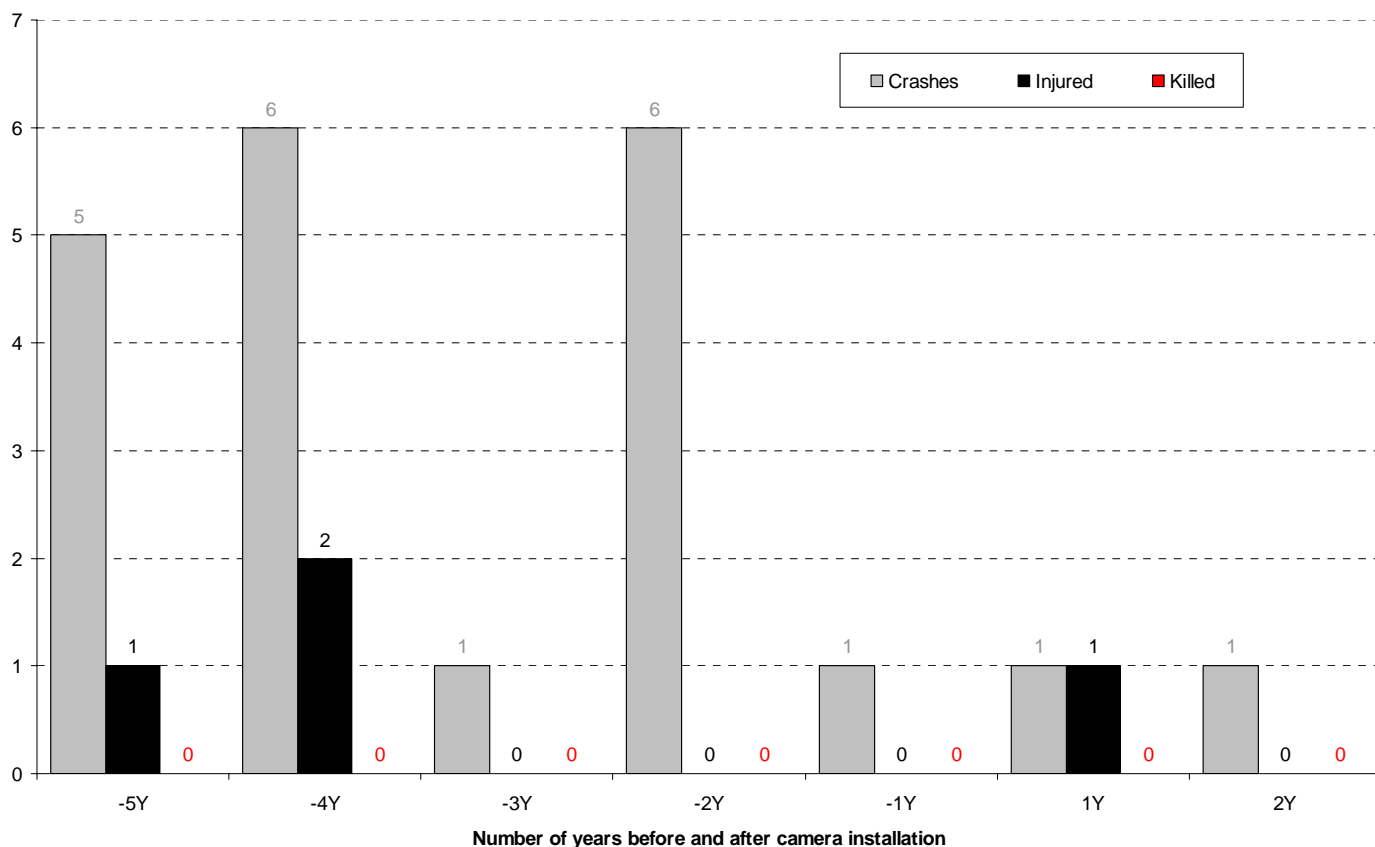
Location: Victoria Road, between Park Road and John Road, Rydalmere.

School zone: Rydalmere Public School.

<b>Length description</b>	190m west of camera to 250m east of camera
<b>Total length (m)</b>	440 (Patch to Patch)
<b>Started Infringing</b>	28/01/2009

### Crashes at fixed speed camera location

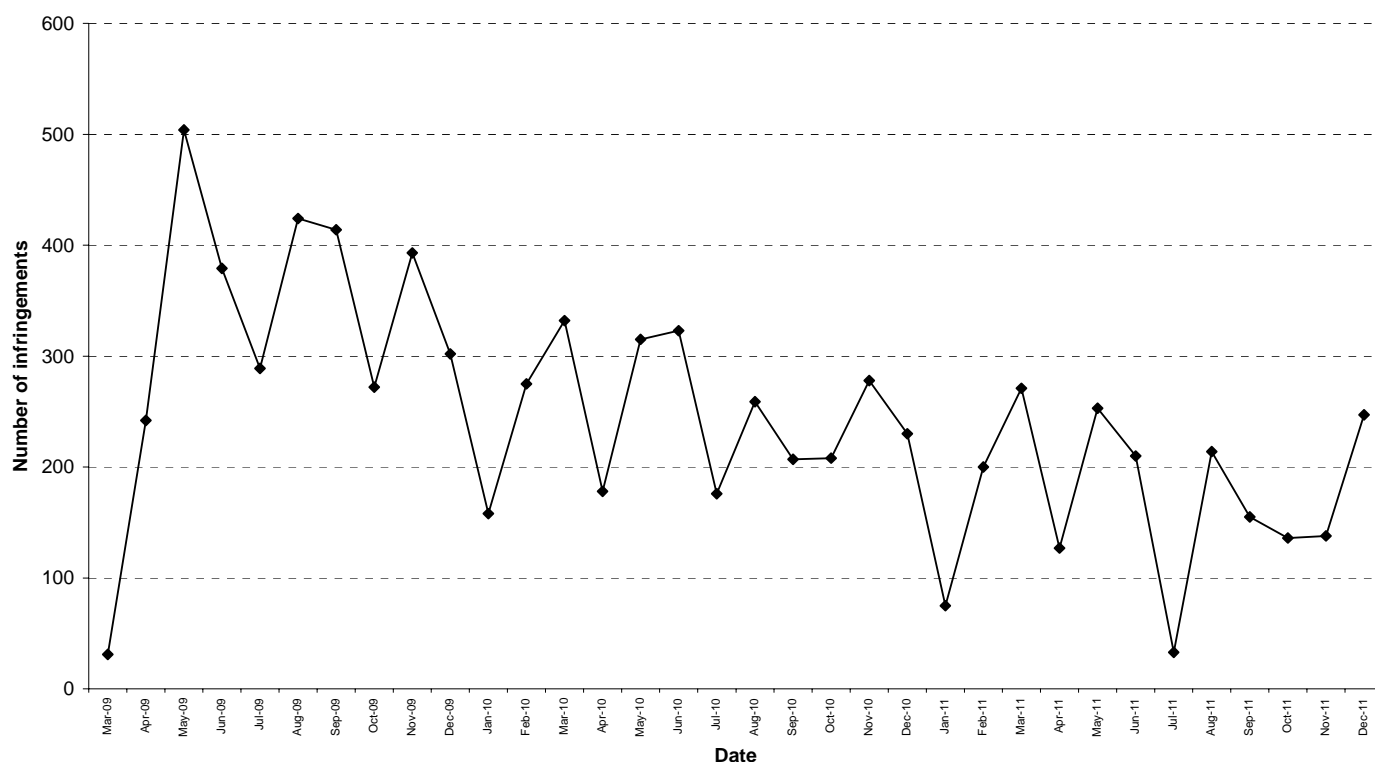
Five years before – October 2003 – October 2008 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	3	3	19	0.342
After (most recent two year period) – 2009 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	1	1	2	0.114





## Infringements at fixed speed camera location

VICTORIA ROAD RYDALMERE



### Summary

The school zone fixed speed cameras on Victoria Rd, Rydalmere was installed in January 2009. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 19 crashes resulting in zero fatalities and three injuries. In the two year period 2009 – 2011 there were two crashes at this location resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 74 per cent reduction in the annual average number of crashes and a 17 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$22,800 in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

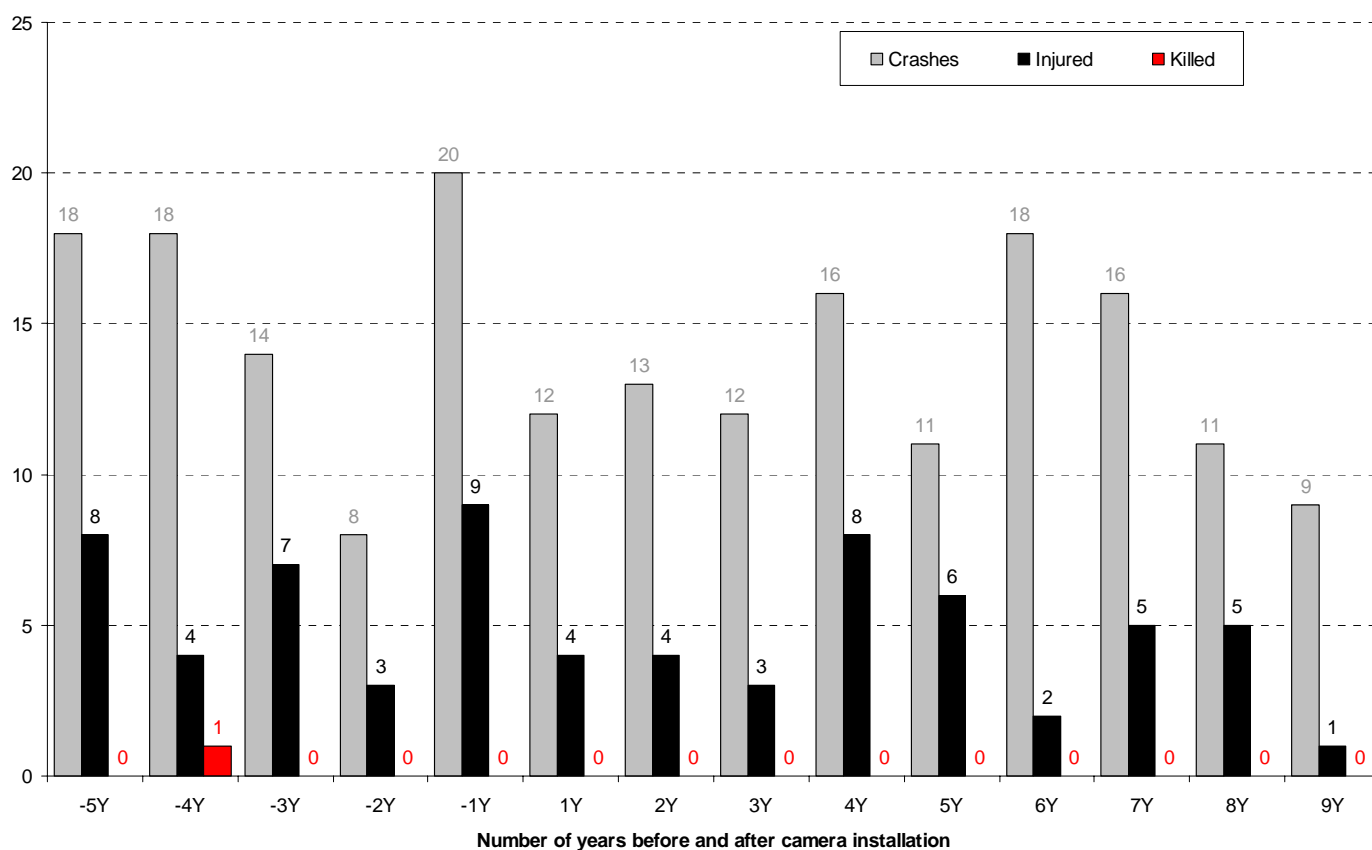
## Fixed digital speed camera – Blaxland Road, Ryde

Location: Blaxland Road, between Reservoir Lane and North Road, Ryde.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	24/06/2002

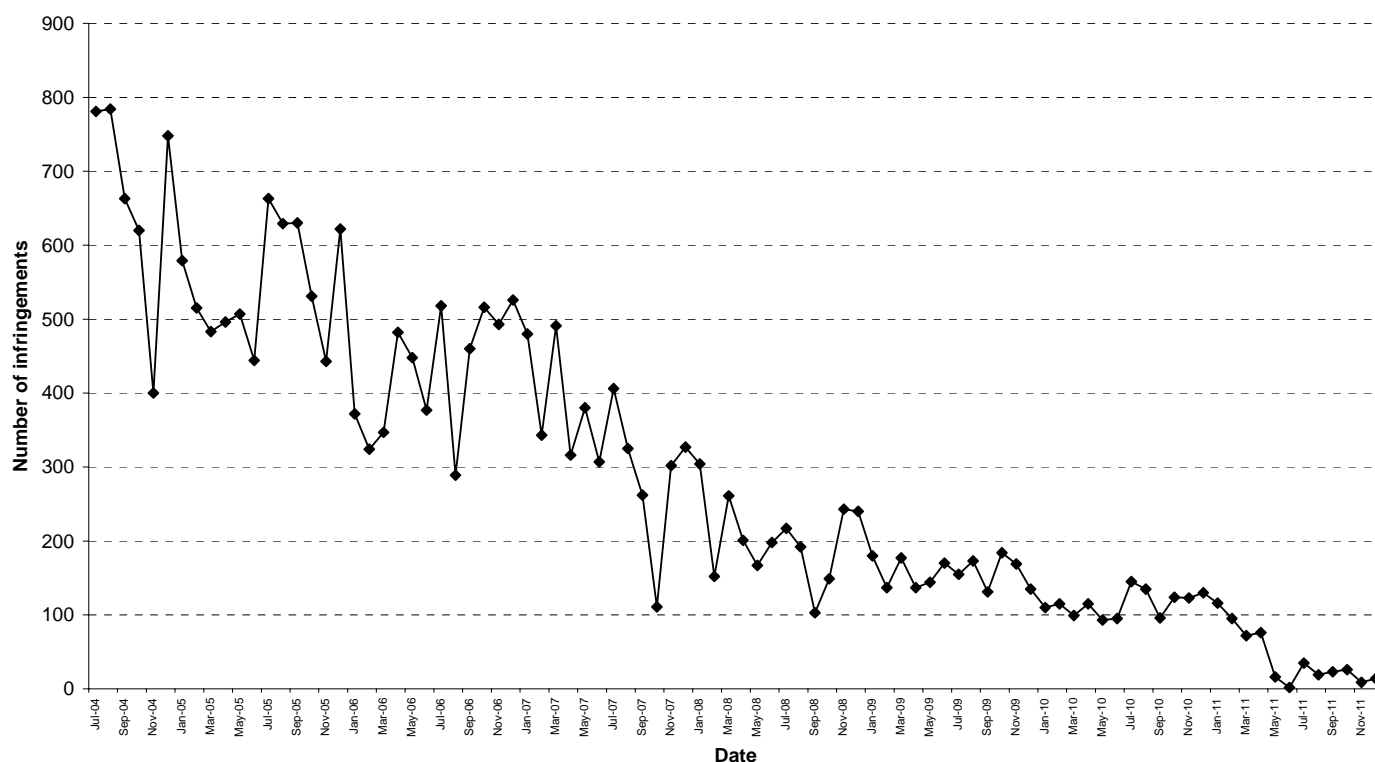
### Crashes at fixed speed camera location

Five years before – March 1997 – March 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	31	32	78	9.368
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	19	19	65	2.166



## Infringements at fixed speed camera location

BLAXLAND ROAD RYDE



### Summary

The fixed speed camera on Blaxland Rd, Ryde was installed in June 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 78 crashes resulting in one fatality and 31 injuries. In the five year period 2006 – 2011 there were 65 crashes at this location resulting in zero fatalities and 19 injuries. When compared to the pre installation period, this is a 17 per cent reduction in the annual average number of crashes and a 41 per cent reduction in the annual average number of casualties. This has been a saving of \$7.2 million in costs to the community.

Provisional crash data show there were six crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Victoria Road, Ryde (school zone)

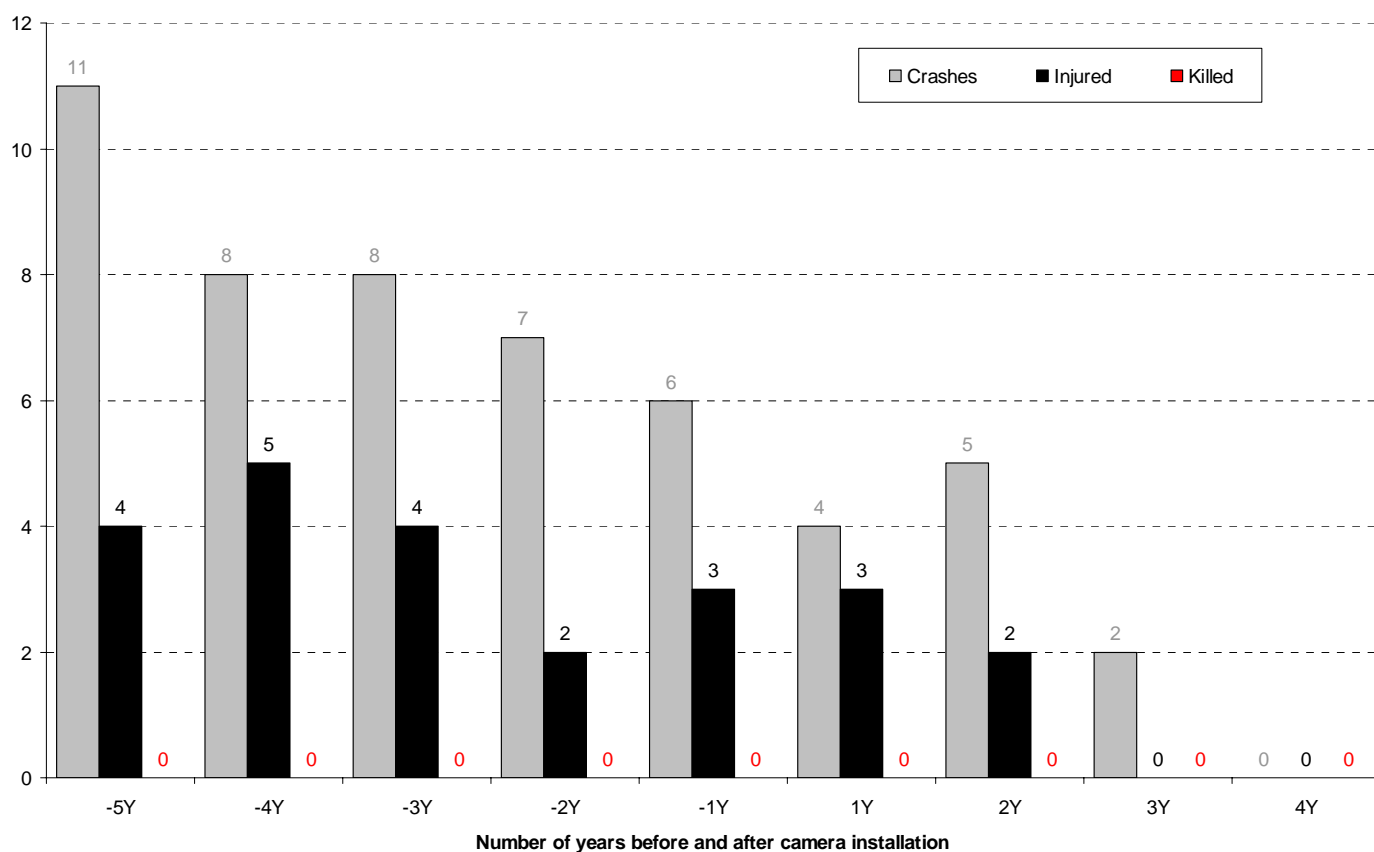
Location: Victoria Road, between Margaret Street and Cressy Road, Ryde.

School zone: Holy Cross College Ryde, St Charles School Ryde.

<b>Length description</b>	300m west of camera to 270m east of camera
<b>Total length (m)</b>	570 (Patch to Patch)
<b>Started Infringing</b>	14/11/2007

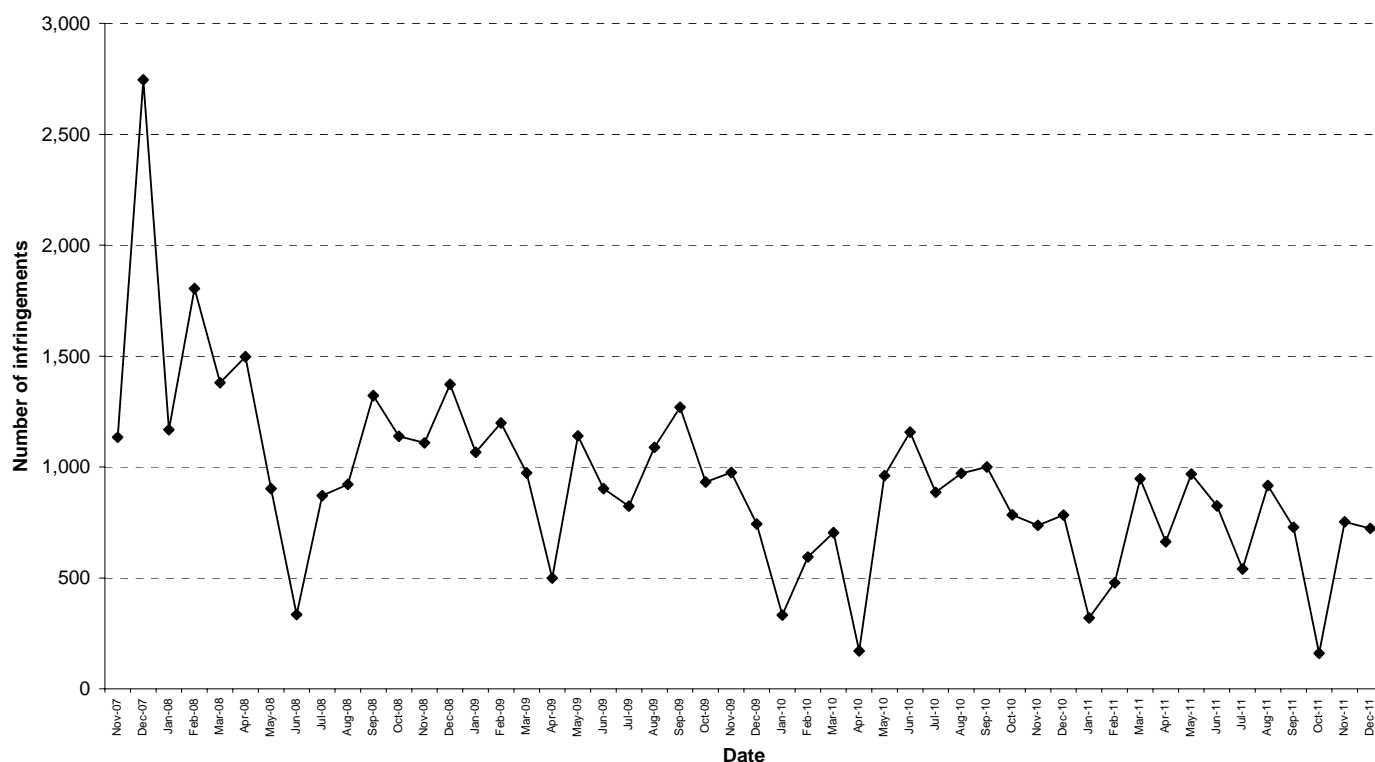
### Crashes at fixed speed camera location

Five years before – August 2002 – August 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	18	18	40	2.052
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	5	5	11	0.57



## Infringements at fixed speed camera location

VICTORIA ROAD RYDE



### Summary

The school zone fixed speed cameras on Victoria Rd, Ryde were installed in November 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 40 crashes resulting in zero fatalities and 18 injuries. In the four year period 2007 – 2011 there were 11 crashes at this location resulting in zero fatalities and five injuries. When compared to the pre installation period, this is a 66 per cent reduction in the annual average number of crashes and a 65 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$1 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

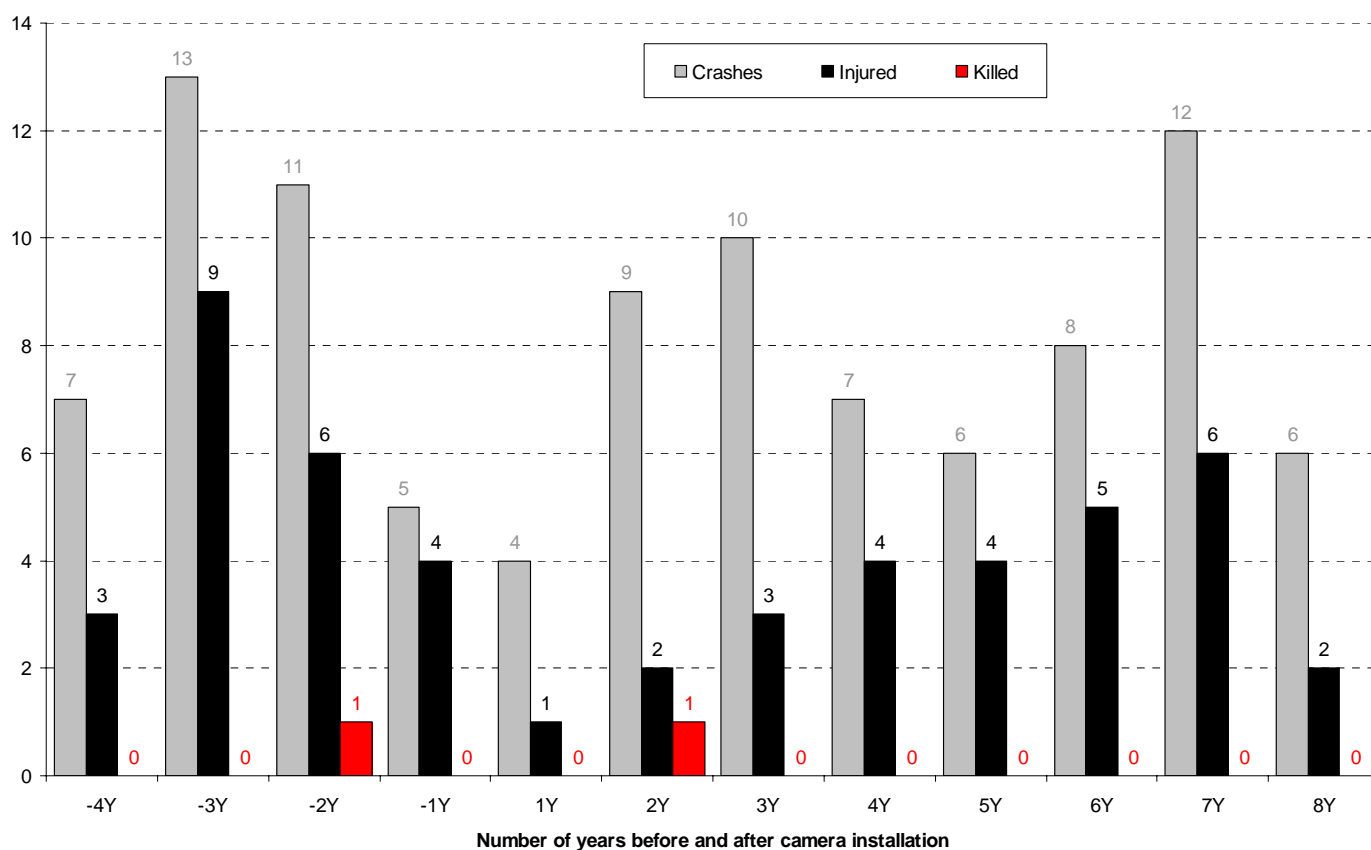
## Fixed digital speed camera – Pacific Highway, Sandgate

Location: Pacific Highway, between Wallsend Road and Ironbark Creek, Sandgate.

<b>Length description</b>	500m south to 500m north - from Mid Point Between Camera Sites
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	14/01/2003 (camera 1 - northbound) 23/04/2003 (camera 2 - southbound)

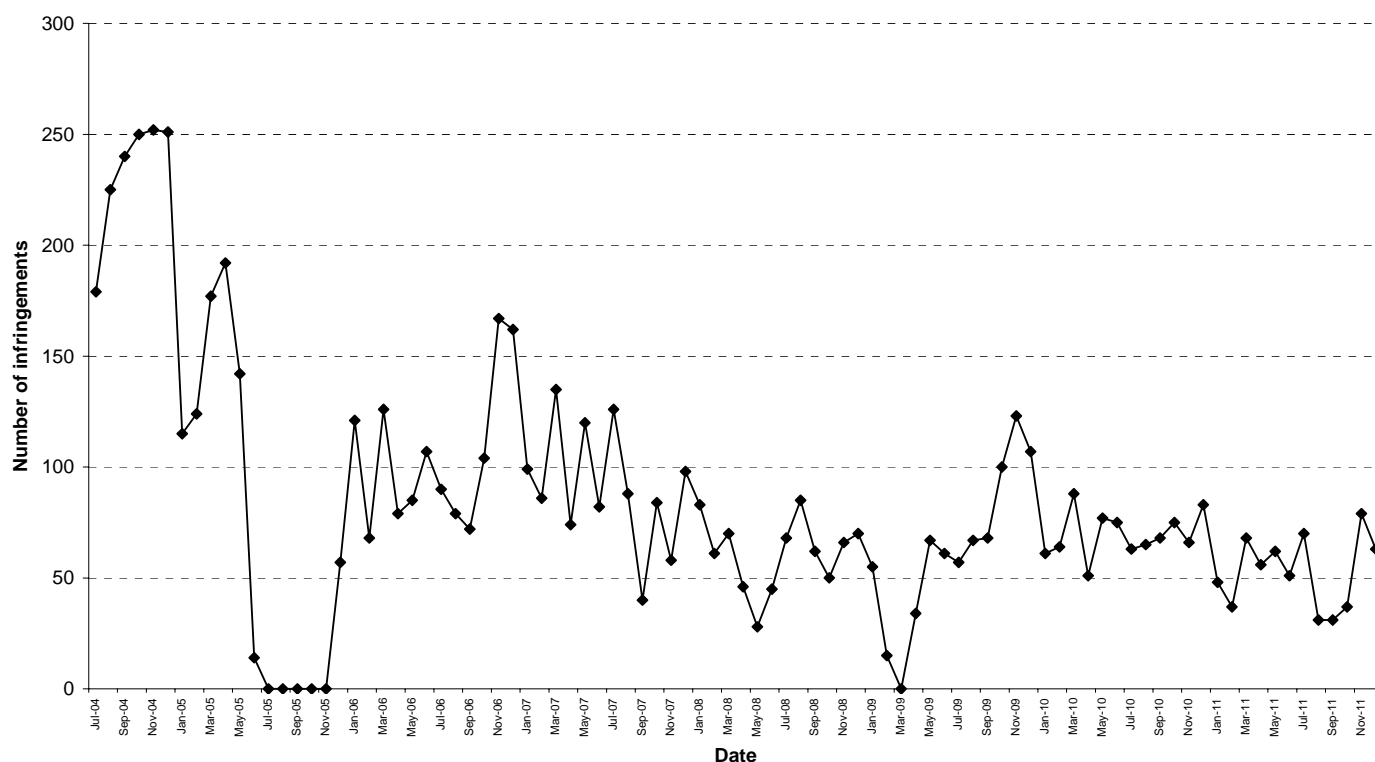
### Crashes at fixed speed camera location

Four years before – October 1998 – October 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	22	23	36	8.342
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	21	21	39	2.394



## Infringements at fixed speed camera location

PACIFIC HIGHWAY SANDGATE



### Summary

The fixed speed cameras on the Pacific Highway, Sandgate were installed in January 2003 (northbound) and April 2003 (southbound). There are two cameras installed at this location.

The current pre and post installation analysis shows that casualties have decreased at this location. In the four years prior to the installation of the fixed speed camera at this location, there were 36 crashes resulting in one fatality and 22 injuries. In the five year period 2006 – 2011 there were 39 crashes at this location resulting in zero fatalities and 21 injuries. When compared to the pre installation period, this is a 8 per cent increase in the annual average number of crashes. However, over the same period there has been a 9 per cent reduction in the annual average number of casualties. This has been a saving of \$5.9 million in costs to the community.

Provisional crash data show there were 11 crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed cameras at this location are found to be delivering the expected road safety benefits.

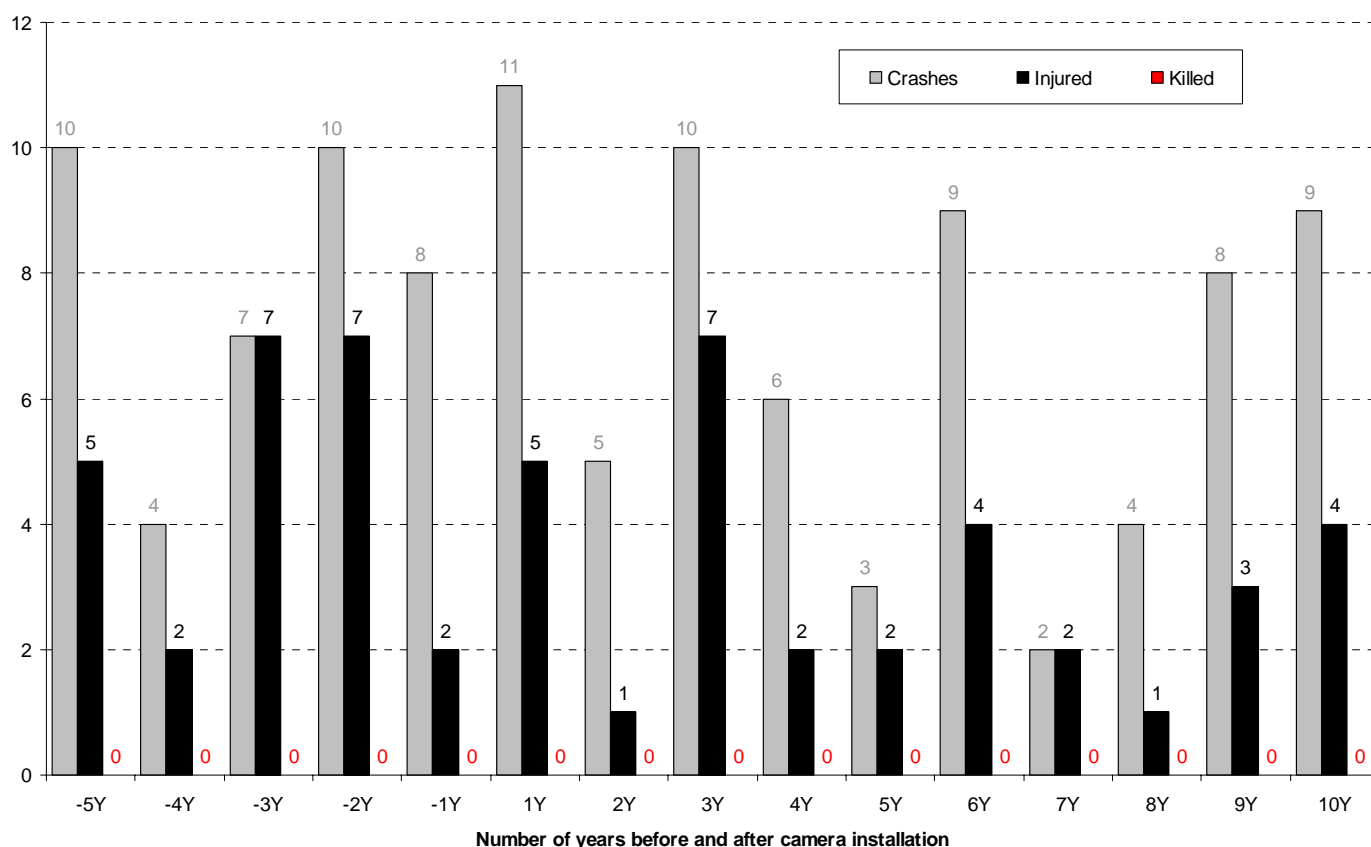
## Fixed digital speed camera – George Street, South Windsor

Location: George Street, between Rickaby Street and Yarrawonga Street, South Windsor.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	30/11/2001

### Crashes at fixed speed camera location

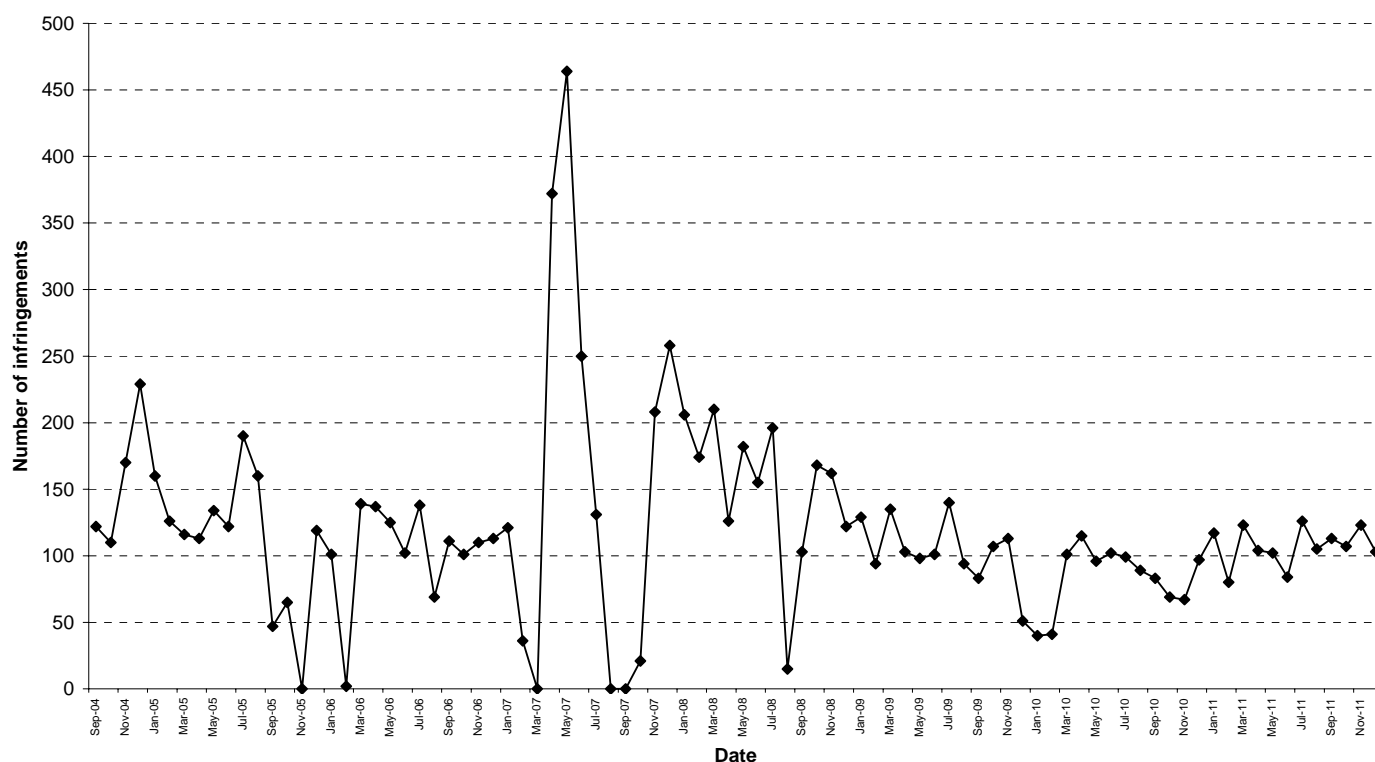
Five years before – August 1996 – August 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	23	23	39	2.622
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	14	14	32	1.596





## Infringements at fixed speed camera location

GEORGE STREET SOUTH WINDSOR



### Summary

The fixed speed camera on George St, South Windsor was installed in November 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 39 crashes resulting in zero fatalities and 23 injuries. In the five year period 2006 – 2011 there were 32 crashes at this location resulting in zero fatalities and 14 injuries. When compared to the pre installation period, this is a 18 per cent reduction in the annual average number of crashes and a 39 per cent reduction in the annual average number of casualties. This has been a saving of \$1 million in costs to the community.

Provisional crash data show there were nine crashes resulting in zero fatalities and four injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements in April 2007 may be attributed to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – The Boulevard, Strathfield (school zone)

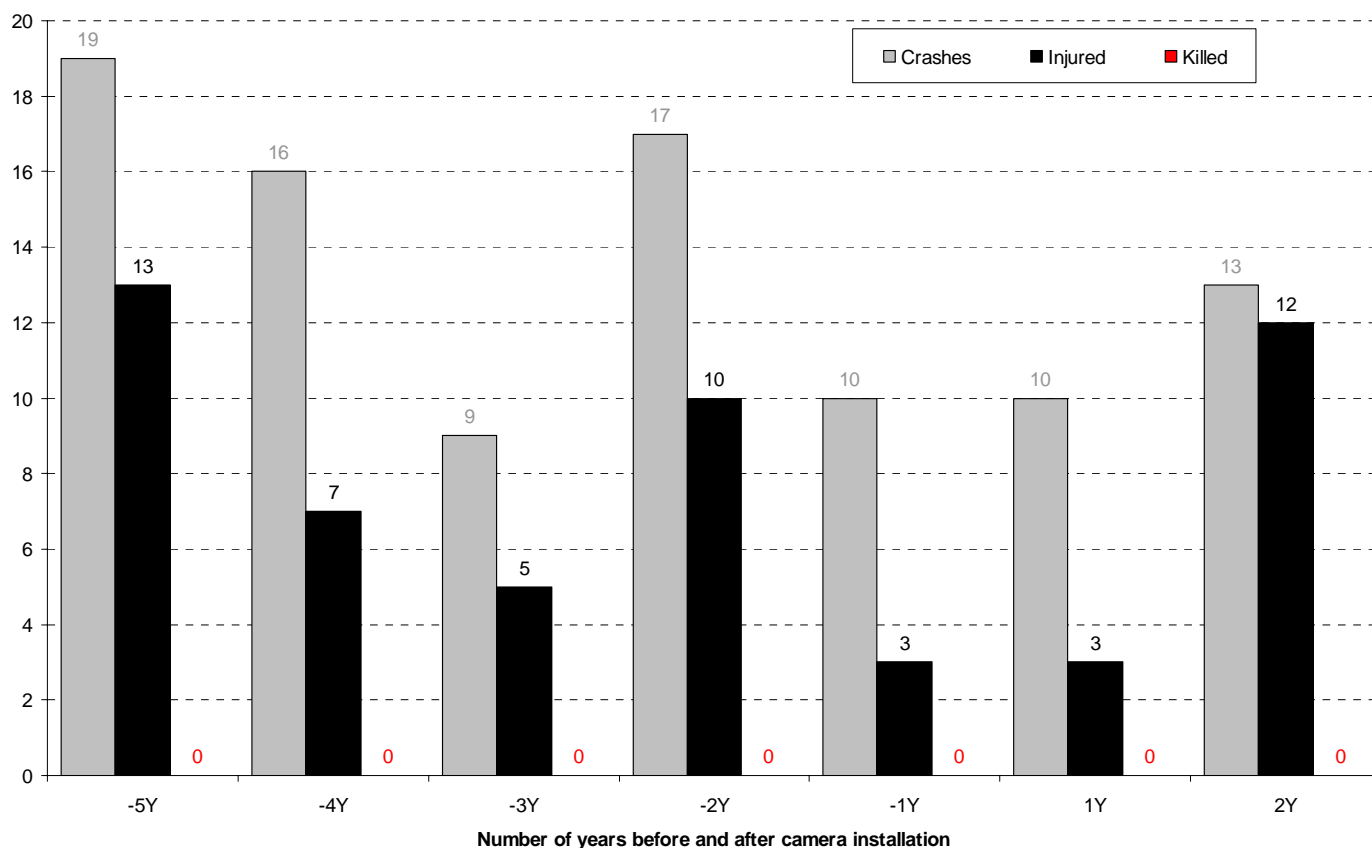
Location: The Boulevard, between Torrington Parade and Russell Street, Strathfield.

School zone: Trinity Grammar Preparatory School, Santa Sabina College, Santa Maria Del Monte, Meridan Senior and Junior.

<b>Length description</b>	425m north of camera to 585m south of camera
<b>Total length (m)</b>	1010 (20m south of Redmyre Rd to Patch)
<b>Started Infringing</b>	04/02/2009

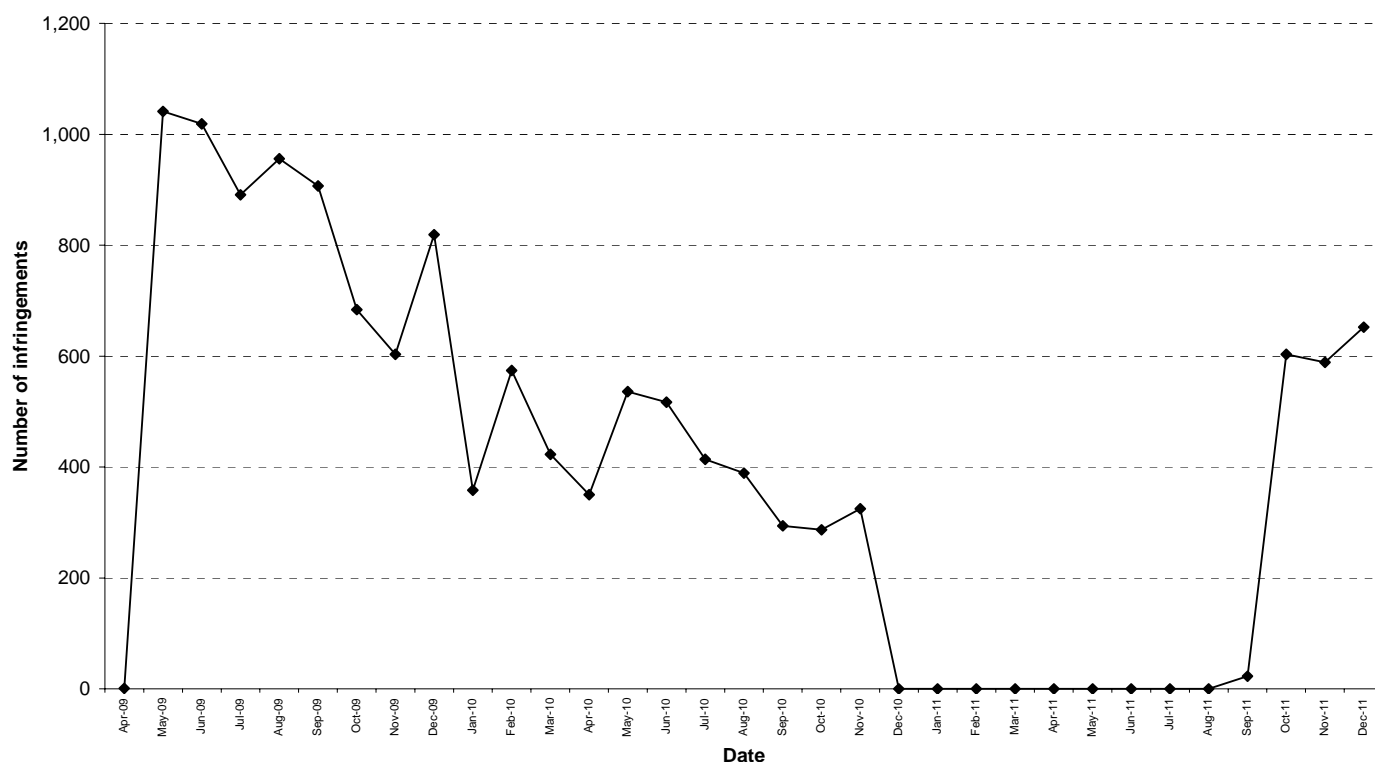
### Crashes at fixed speed camera location

Five years before — November 2003 – November 2008 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	38	38	71	4.332
After (most recent two year period) – 2009 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	15	15	23	1.71



## Infringements at fixed speed camera location

THE BOULEVARDE STRATHFIELD



### Summary

The school zone fixed speed camera on The Boulevard, Strathfield was installed in February 2009. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 71 crashes resulting in zero fatalities and 38 injuries. In the two year period 2009 – 2011 there were 23 crashes, resulting in zero fatalities and 15 injuries. When compared to the pre installation period, this is a 19 per cent reduction in the annual average number of crashes and a 1 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$22,800 in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the camera began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Sydney Harbour Tunnel, Sydney

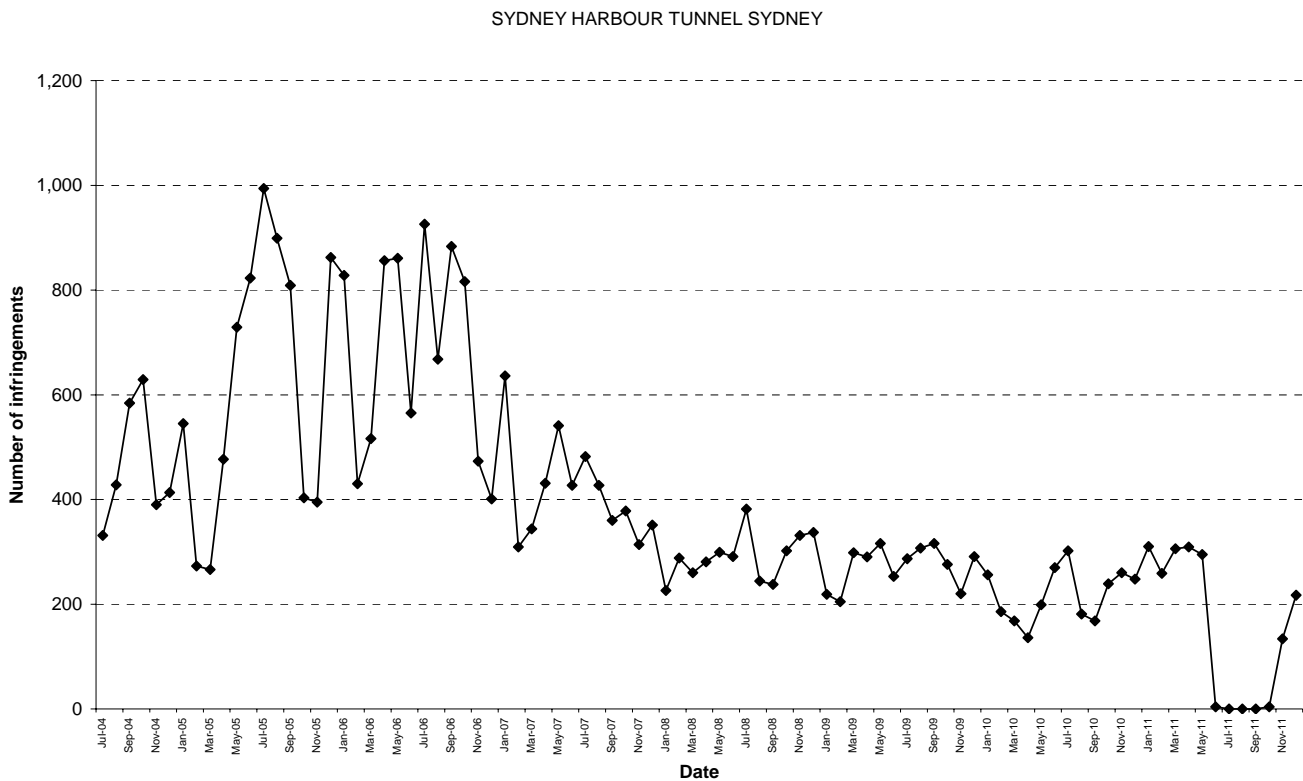
Location: Sydney Harbour Tunnel, between Cahill Expressway and Warringah Freeway, Sydney.

<b>Length description</b>	865m south of camera to 1430m north of camera (northbound)
	870m south of camera to 1425m north of camera (southbound)
<b>Total length (m)</b>	2295 (northbound)
	2295 (southbound)
<b>Started Infringing</b>	02/08/2002

## High risk fixed speed camera location – Provisional crash data calendar year 2011

Northbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	1	5	6	0	1	1
Southbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	3	1	4	0	6	6

## Infringements at fixed speed camera location



## Summary

The fixed speed cameras in the Sydney Harbour Tunnel, Sydney were installed in August 2002. There are two speed cameras installed at this location.

This location is appropriate for fixed speed camera enforcement as it is a high risk location that is difficult for the NSW Police Force to enforce using traditional methods. Provisional crash data show there were 10 crashes resulting in zero fatalities and seven injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The extended period of camera downtime from June 2011 to October 2011 was due to camera maintenance requirements and difficulties accessing the tunnel site.

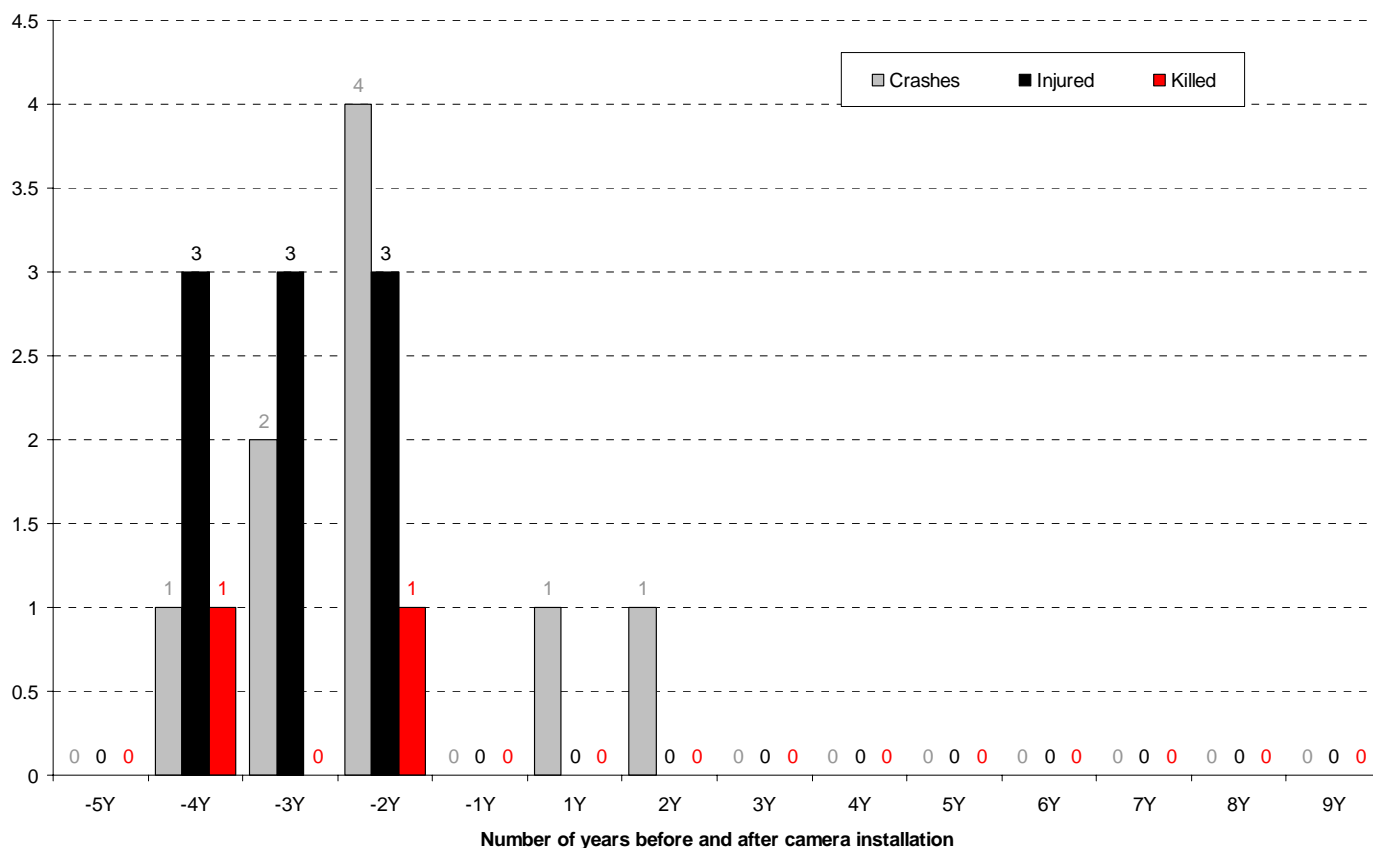
### Fixed digital speed camera – New England Highway, Tenterfield

Location: New England Highway, between Duncan Street and George Street, Tenterfield.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	3/10/2002

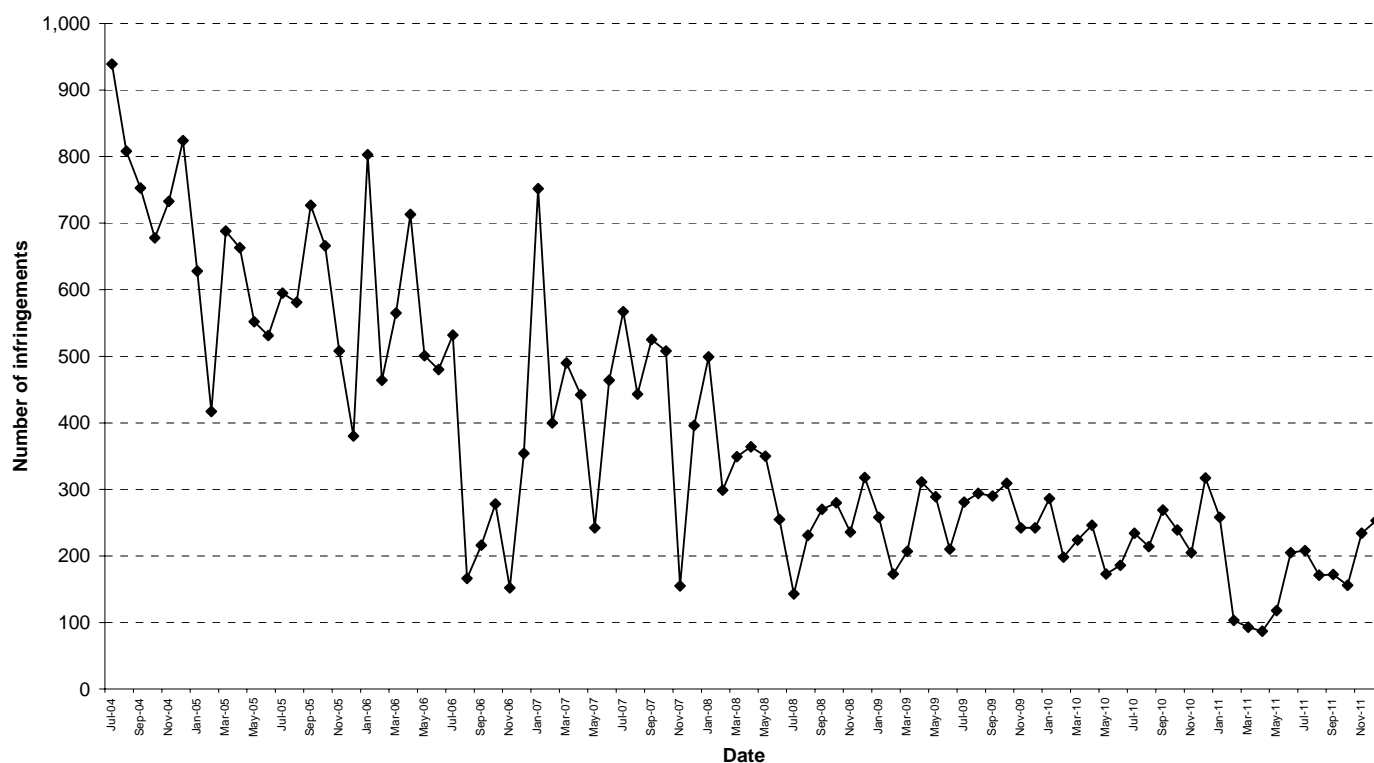
### Crashes at fixed speed camera location

Five years before – July 1997 – July 2002- Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	9	11	7	12.694
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	0	0	0	0



## Infringements at fixed speed camera location

NEW ENGLAND HIGHWAY TENTERFIELD



### Summary

The fixed speed cameras on the New England Highway, Tenterfield were installed in October 2002. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were seven crashes resulting in two fatalities and nine injuries. In the five year period 2006 – 2011 there were zero crashes at this location. When compared to the pre installation period, this is a 100 per cent reduction in the annual average number of crashes and a in the annual average number of casualties. This has been a saving of \$12.6 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed cameras at this location are found to be delivering the expected road safety benefits.

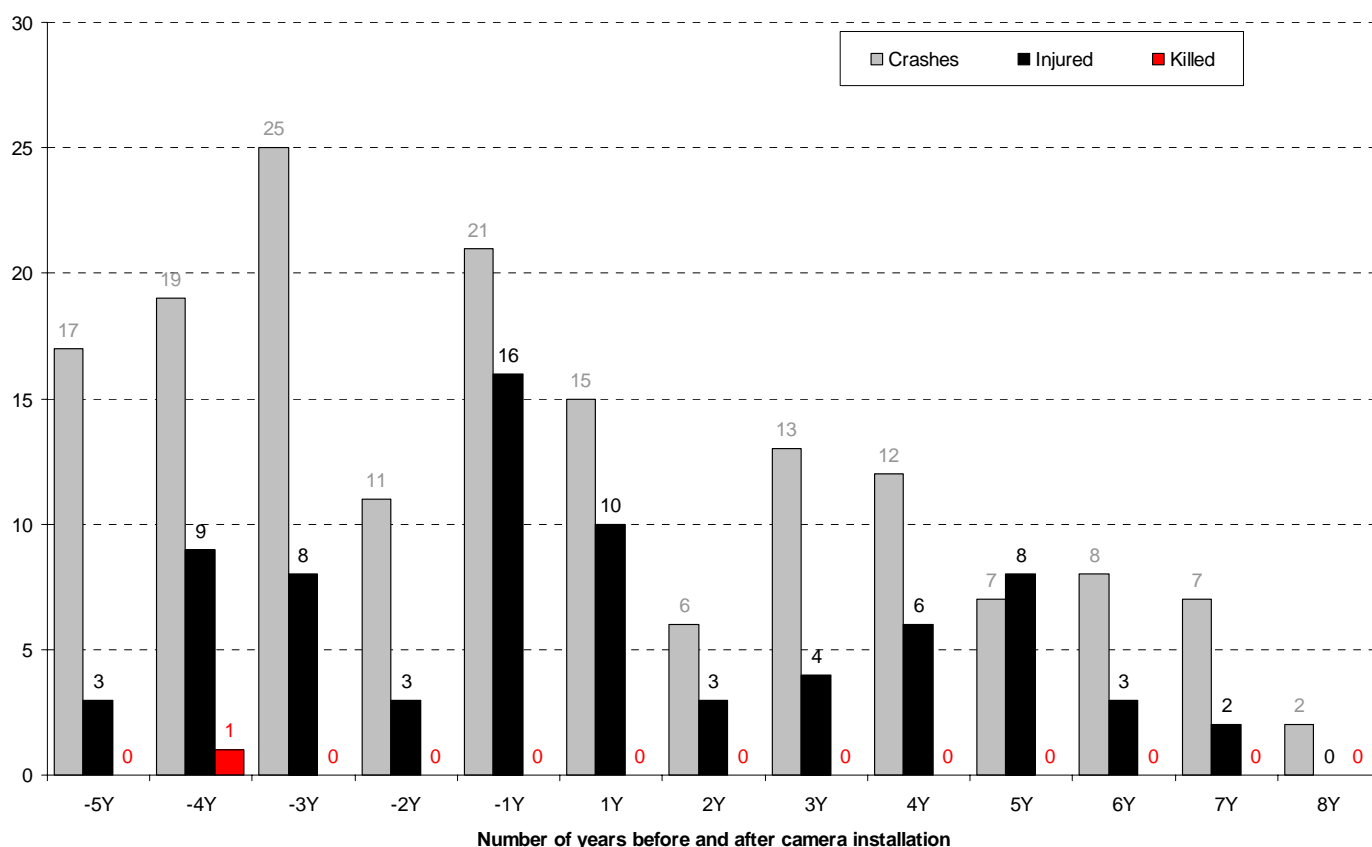
## Fixed digital speed camera – Terrigal Drive, Terrigal

Location: Terrigal Drive, between Brunswick Road and Bellbird Avenue, Terrigal.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	27/02/2003

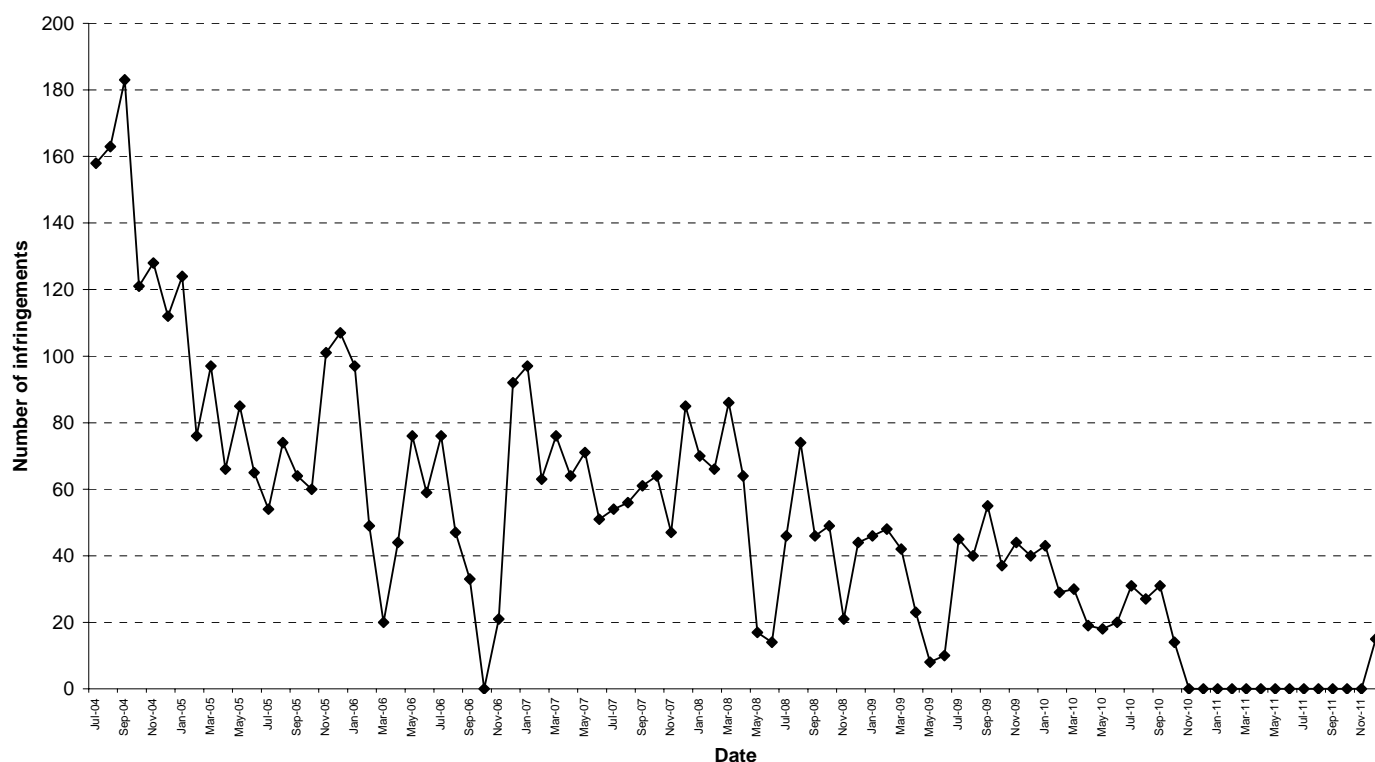
### Crashes at fixed speed camera location

Five years before – November 1997 – November 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	39	40	93	10.28
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	19	19	36	2.166



## Infringements at fixed speed camera location

TERRIGAL DRIVE TERRIGAL



### Summary

The fixed speed camera on Terrigal Drive, Terrigal was installed in February 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 93 crashes resulting in one fatality and 39 injuries. In the five year period 2006 – 2011 there were 36 crashes resulting in zero fatalities and 19 injuries. When compared to the pre installation period, this is a 61 per cent reduction in the annual average number of crashes and a 53 per cent reduction in the annual average number of casualties. This has been a saving of \$8.114 million in costs to the community.

Provisional crash data show there were five crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. The extended period of camera downtime from November 2010 – November 2011 was due to significant roadworks at the location.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.



## Fixed digital speed camera – Fitzwilliam Road, Toongabbie (school zone)

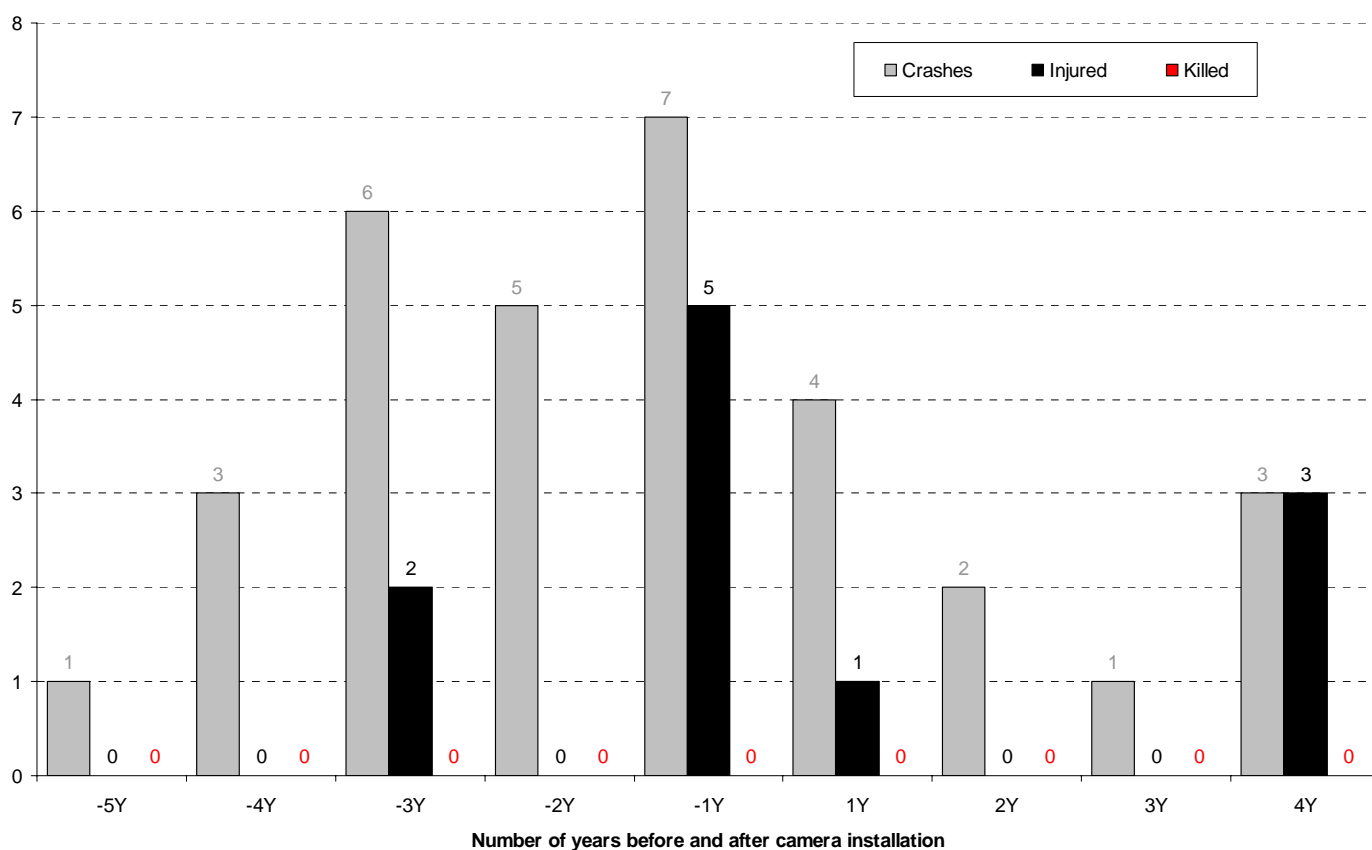
Location: Fitzwilliam Road, between Reynolds Street and Binalong Road, Toongabbie.

School zone: Toongabbie Public School

<b>Length description</b>	350m east of camera to 240m west of camera
<b>Total length (m)</b>	590 (Patch to Patch)
<b>Started Infringing</b>	16/05/2007

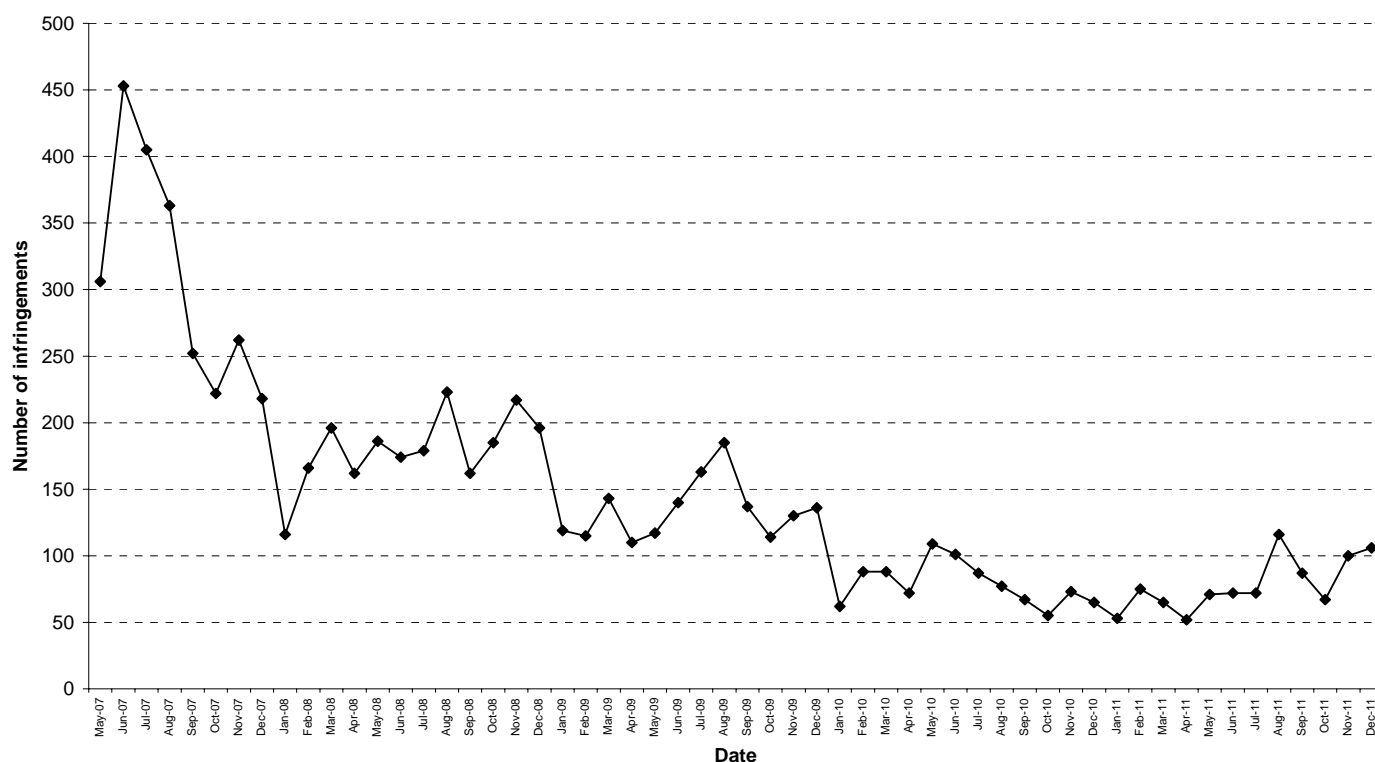
### Crashes at fixed speed camera location

Five years before – February 2002 – February 2007 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	7	7	22	0.798
After (most recent four year period) – 2007 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	4	4	10	0.456



## Infringements at fixed speed camera location

FITZWILLIAM ROAD OLD TOONGABBIE



### Summary

The school zone fixed speed cameras on Fitzwilliam Road, Toongabbie were installed in May 2007. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 22 crashes resulting in zero fatalities and seven injuries. In the four year period 2007 – 2011 there were 10 crashes resulting in zero fatalities and four injuries. When compared to the pre installation period, this is a 43 per cent reduction in the annual average number of crashes and a 29 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$182,000 in costs to the community.

Provisional crash data show there was one crash resulting in zero fatalities and one injury at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the school zone fixed speed cameras at this location are found to be delivering the expected road safety benefits.

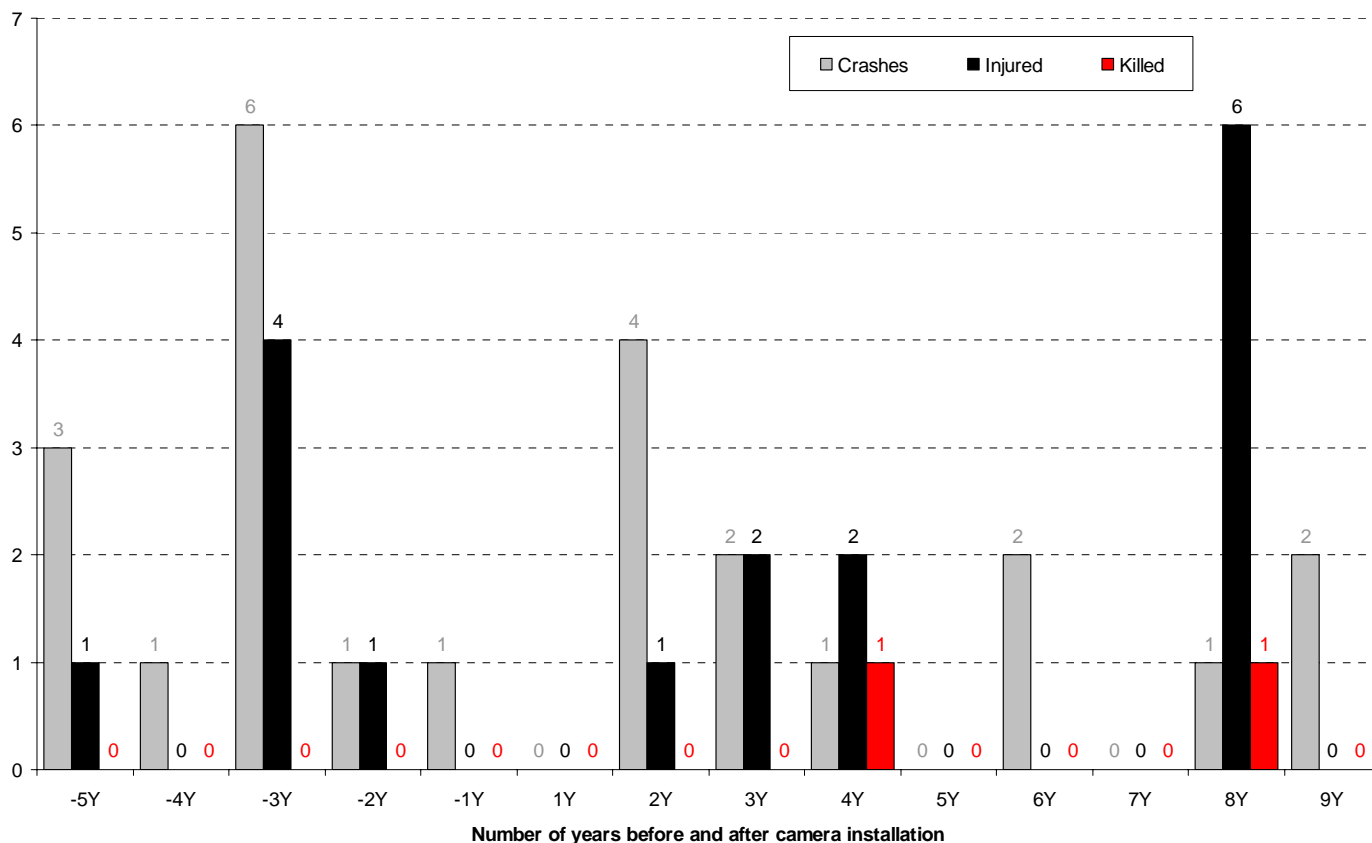
## Fixed digital speed camera – Pacific Highway, Valla Beach

Location: Pacific Highway, between Valla Beach Road and Oyster Creek, Valla Beach.

<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	05/02/2002

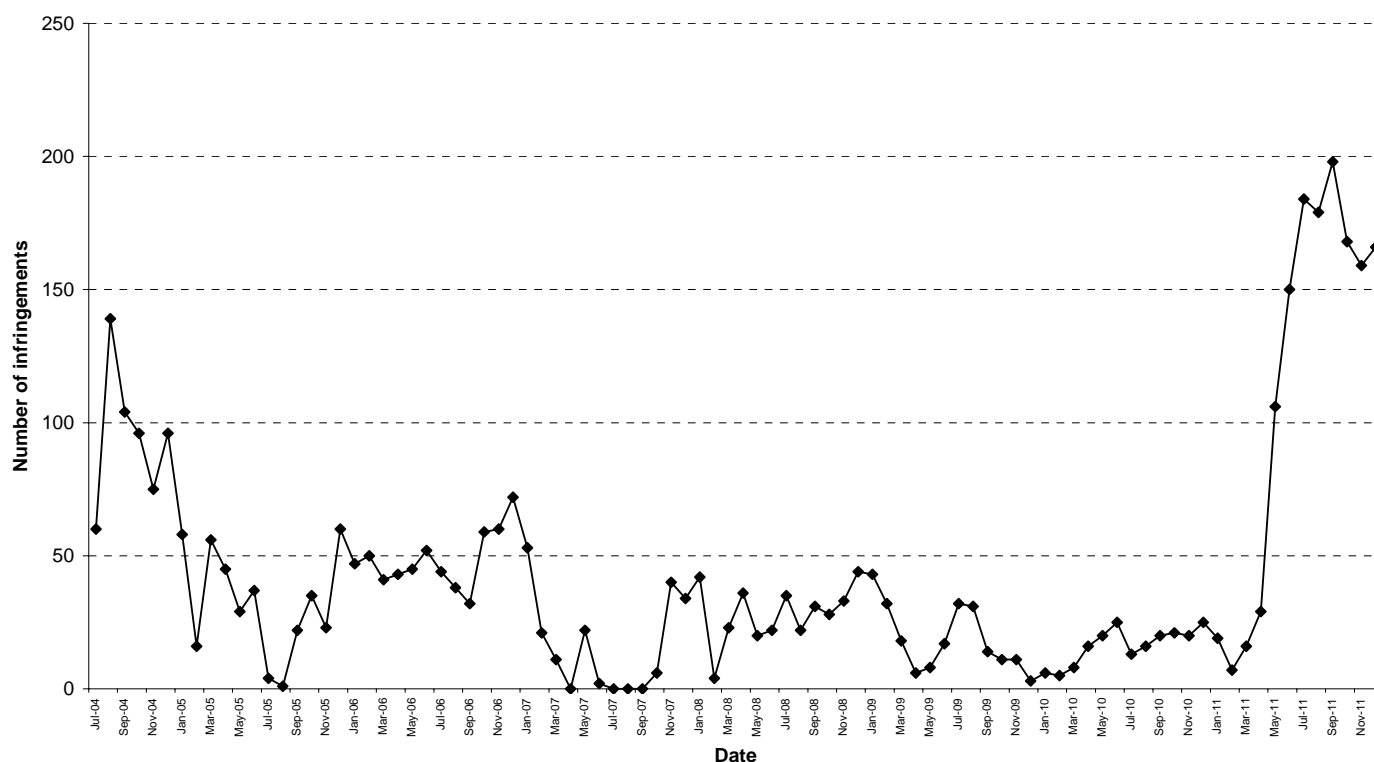
### Crashes at fixed speed camera location

Five years before – November 1996 – November 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	12	0.684
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	6	7	5	6.518



## Infringements at fixed speed camera location

PACIFIC HIGHWAY VALLA BEACH



### Summary

The fixed speed cameras on the Pacific Highway, Valla Beach were installed in February 2002. There are two cameras installed at this location.

In the five years prior to the installation of the fixed speed camera at this location, there were 12 crashes resulting in zero fatalities and six injuries. In the five year period 2006 – 2011 there were five crashes resulting in one fatality and six injuries.

Provisional crash data show there was one crash resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

Based on the assessment criteria the fixed speed cameras on the Pacific Highway, Valla Beach were identified for review. Crashes have reduced at this location, however casualties have increased when comparing the five years prior to the current five year analysis period. Furthermore since the installation of the speed camera two fatalities have occurred, one of which occurred in the current five year analysis period. A more detailed analysis of the crashes indicates that the number of casualty crashes has reduced by 80 per cent from five to one. One casualty crash in 2009 resulted in one fatality and six injuries which has significantly influenced the effectiveness result.

These speed cameras are also located on a section of the Pacific Highway that is yet to be upgraded. The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements from May 2011 may be attributed to the speed limit changing from 100 km/h to 80 km/h. The speed limit was changed due to the poor safety record of this section of the Pacific Highway. In this location, the speed cameras assist in reducing speeding behaviour.

Based on the reduction in crashes and casualty crashes at this location and the non-upgraded status of the road it is recommended that these cameras are retained.

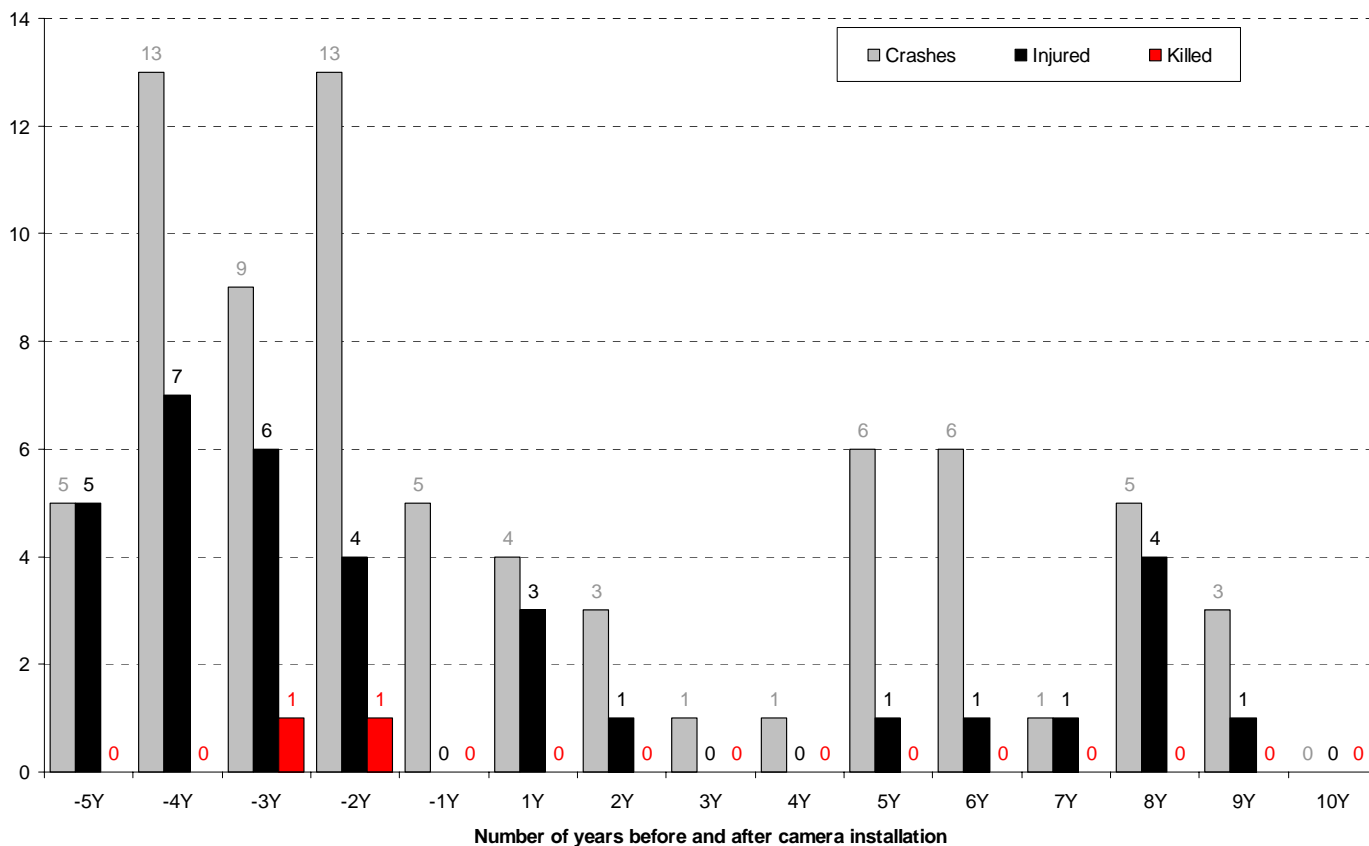
## Fixed digital speed camera – Great Western Highway, Valley Heights

Location: Great Western Highway, between The Valley Road and Sun Valley Road, Valley Heights.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	29/04/2002

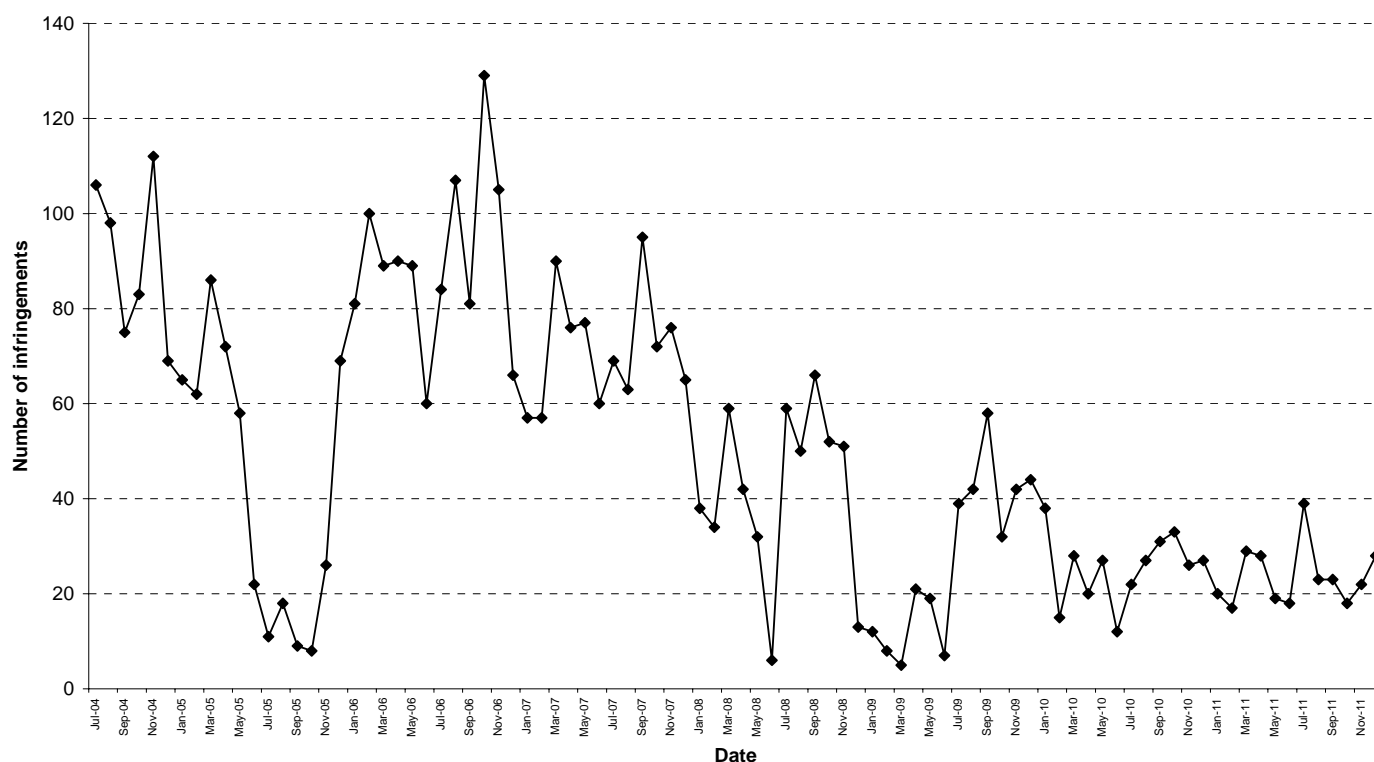
### Crashes at fixed speed camera location

Five years before – January 1997 – January 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	22	24	45	14.176
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	8	8	21	0.912



## Infringements at fixed speed camera location

GREAT WESTERN HIGHWAY VALLEY HEIGHTS



### Summary

The fixed speed camera on the Great Western Highway, Valley Heights was installed in April 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 45 crashes resulting in two fatalities and 22 injuries. In the five year period 2006 – 2011 there were 21 crashes resulting in zero fatalities and eight injuries. When compared to the pre installation period, this is a 53 per cent reduction in the annual average number of crashes and a 67 per cent reduction in the annual average number of casualties. This has been a saving of \$13.2 million in costs to the community.

Provisional crash data show there were four crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

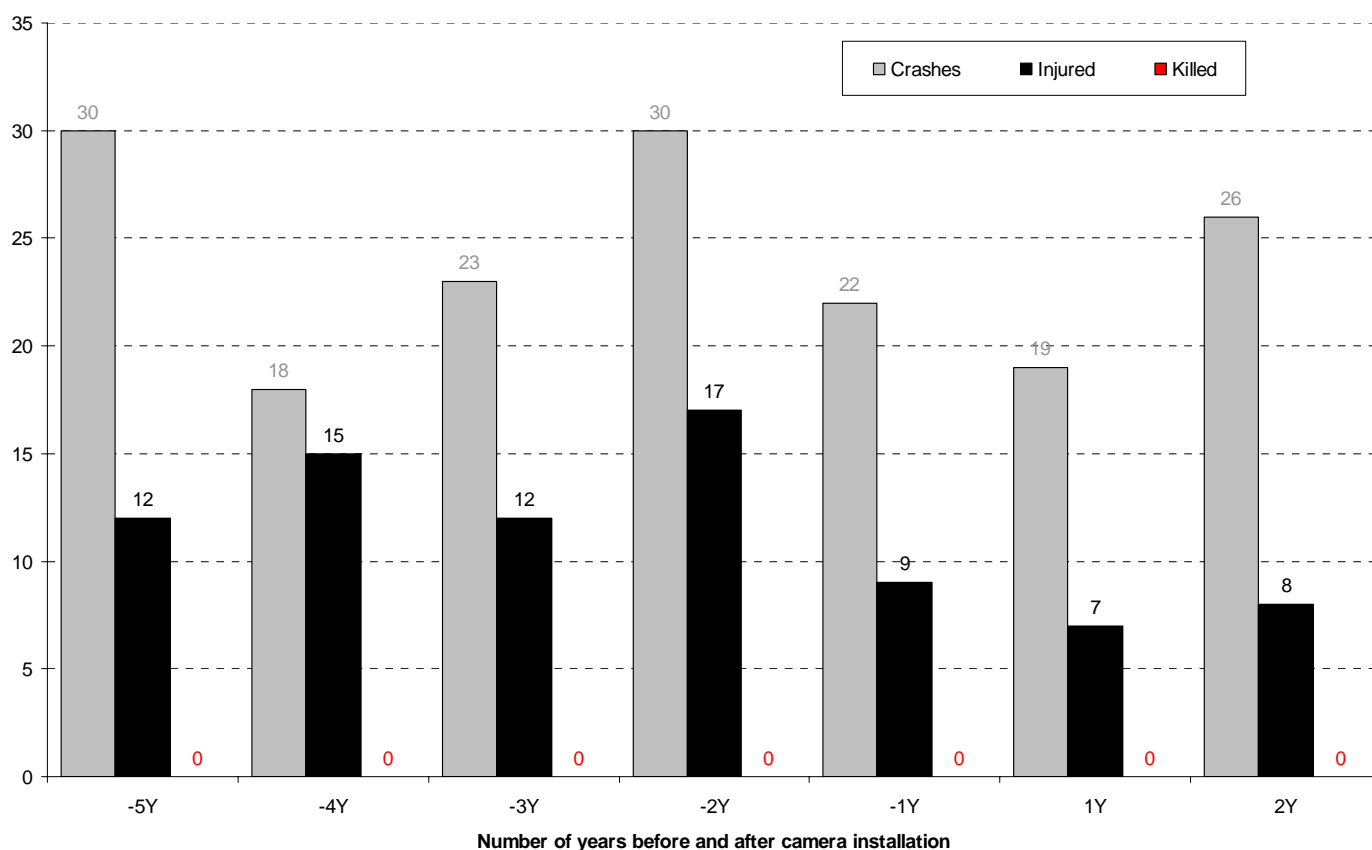
## Fixed digital speed camera – Pacific Highway, Wahroonga (school zone)

Location: Pacific Highway, between Gilda Avenue and Woodville Avenue, Wahroonga.  
 School zone: Warrawee Public School, Knox Grammar, Abbotsleigh Senior Campus.

<b>Length description</b>	1080m south of camera to 880m north of camera
<b>Total length (m)</b>	1960m (Patch to Patch)
<b>Started Infringing</b>	28/01/2009

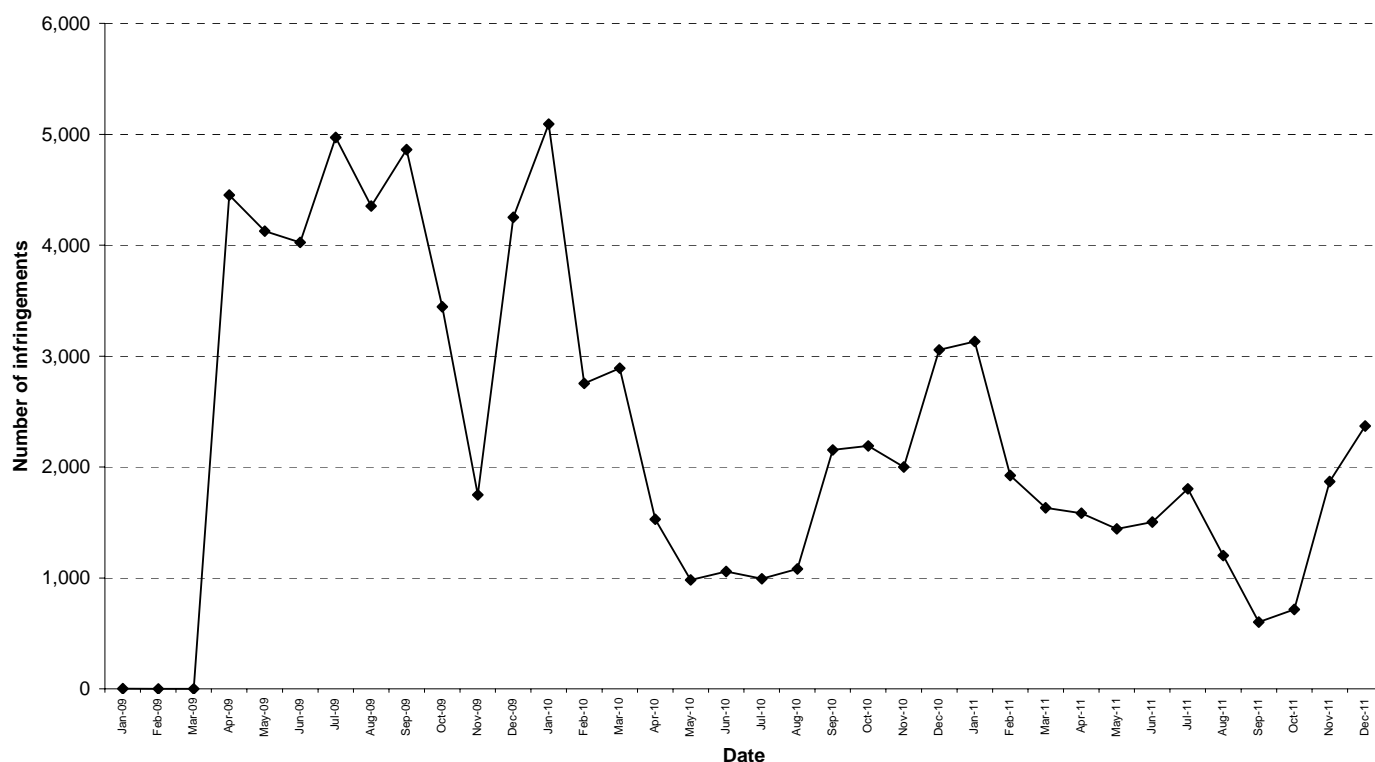
### Crashes at fixed speed camera location

Five years before – October 2003 – October 2008 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	65	65	123	7.41
After (most recent two year period) – 2009 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	15	15	45	1.71



## Infringements at fixed speed camera location

PACIFIC HIGHWAY WAHROONGA



### Summary

The fixed school zone speed cameras on the Pacific Highway, Wahroonga were installed in January 2009. There are two cameras installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 123 crashes resulting in zero fatalities and 65 injuries. In the two year period 2009 – 2011 there were 45 crashes resulting in zero fatalities and 15 injuries. When compared to the pre installation period, this is a 9 per cent reduction in the annual average number of crashes and a 42 per cent reduction in the annual average number of casualties. To date, this has been a saving of \$1.2 million in costs to the community.

Provisional crash data show there were 10 crashes resulting in zero fatalities and five injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed school zone speed cameras at this location are found to be delivering the expected road safety benefits.



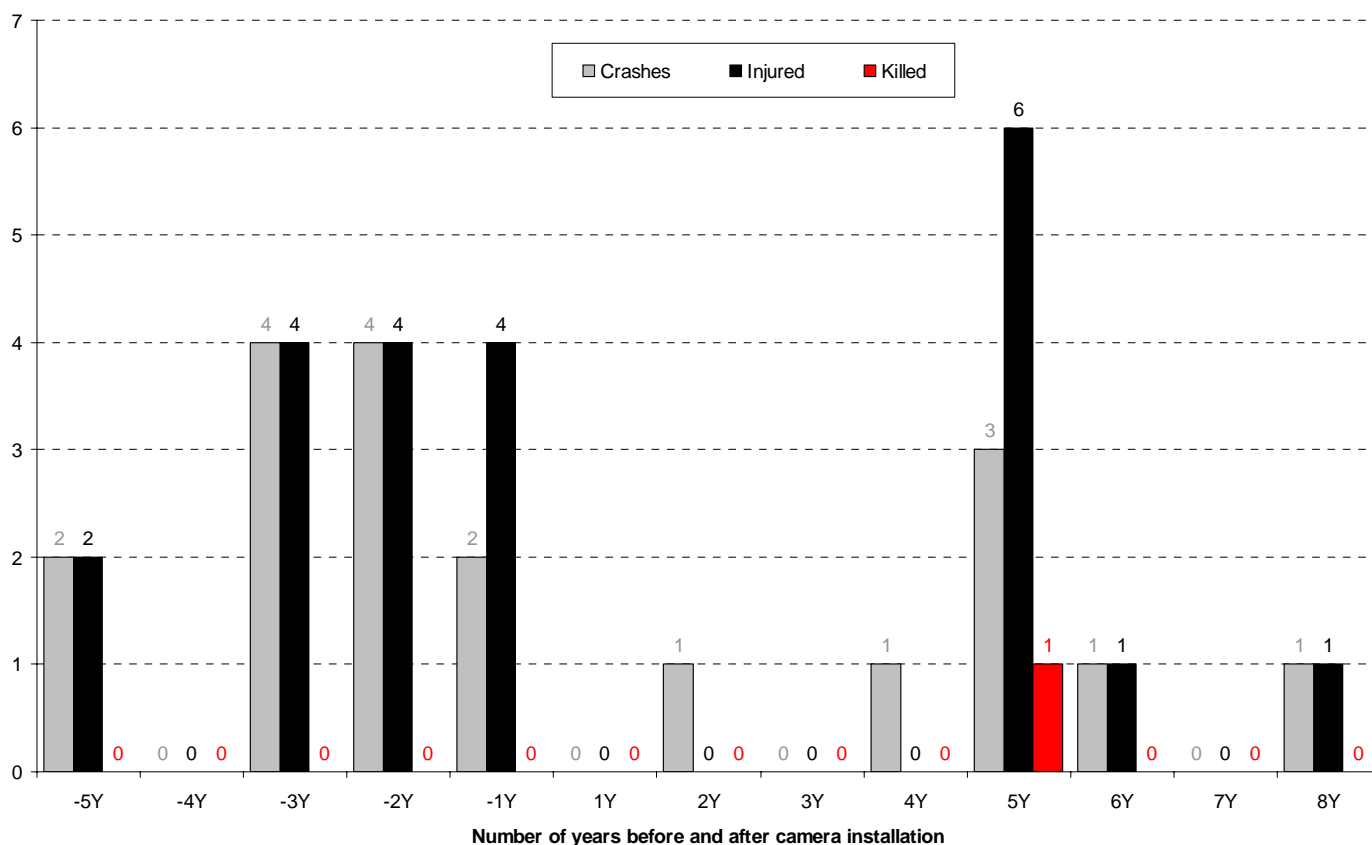
## Fixed digital speed camera – Pacific Highway, Wardell

Location: Pacific Highway, between Riverside Drive and Carlisle Street, Wardell.

<b>Length description</b>	500m north of camera to 500m south of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	24/02/2003

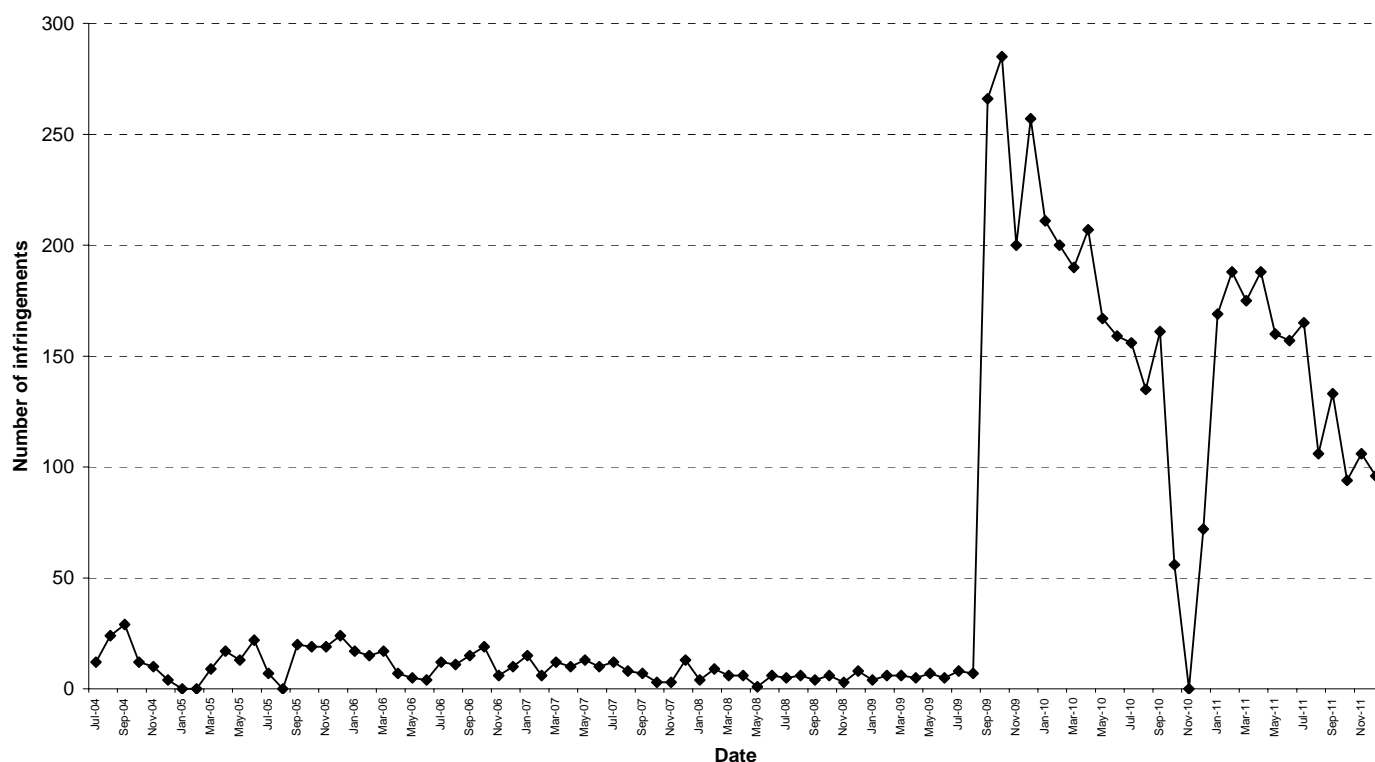
### Crashes at fixed speed camera location

Five years before – November 1997- November 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	14	14	12	1.596
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	8	9	6	6.746



## Infringements at fixed speed camera location

PACIFIC HIGHWAY WARDELL



### Summary

The fixed speed camera on the Pacific Highway, Wardell was installed in February 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 12 crashes resulting in zero fatalities and 14 injuries. In the five year period 2006 – 2011 there were six crashes resulting in one fatality and eight injuries.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

Based on the assessment criteria the fixed speed camera on the Pacific Highway, Wardell was identified for review. Crashes have reduced at this location, however casualties have increased when comparing the five years prior to installation with the current analysis period. Furthermore, a fatality occurred in the current five year analysis period. A more detailed analysis of the crashes indicates that the number of casualty crashes has reduced by 43 per cent from seven to four. In 2007 there was one crash which resulted in a fatality and five injuries and has significantly influenced the effectiveness result. The crash occurred at an intersection and involved an adjacent impact, a type of crash which is less likely to be reduced by the presence of the speed camera.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements in September 2008 may be attributed to the speed limit changing from 100 km/h to 80 km/h. Roadworks and camera maintenance may influence the number of infringements issued.

Based on the additional analysis of this location, it is recommended that the speed camera is retained.

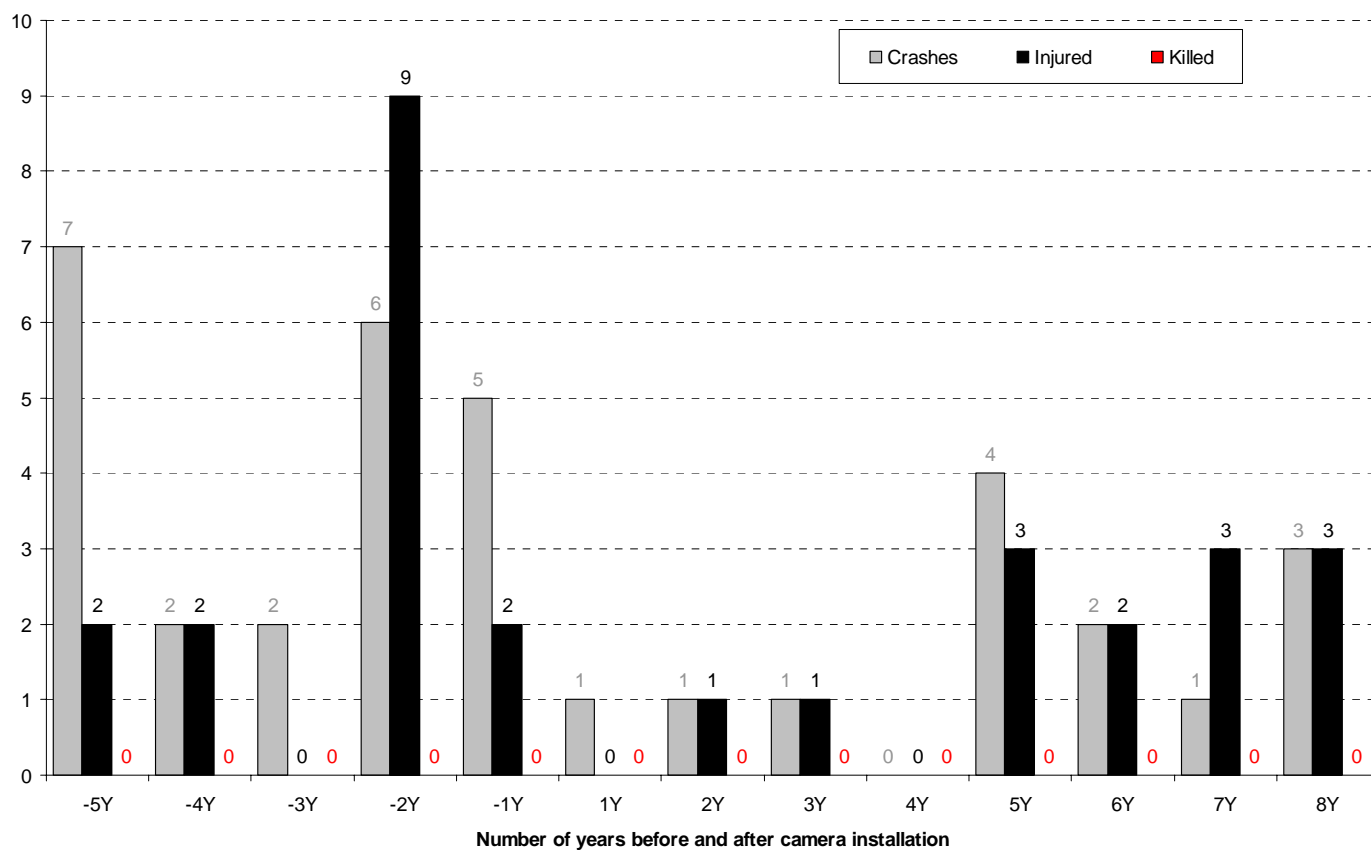
## Fixed digital speed camera – Northcliffe Drive, Warrawong

Location:Northcliffe Drive, between Griffin Street and Kully Street, Warrawong.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	1/05/2003

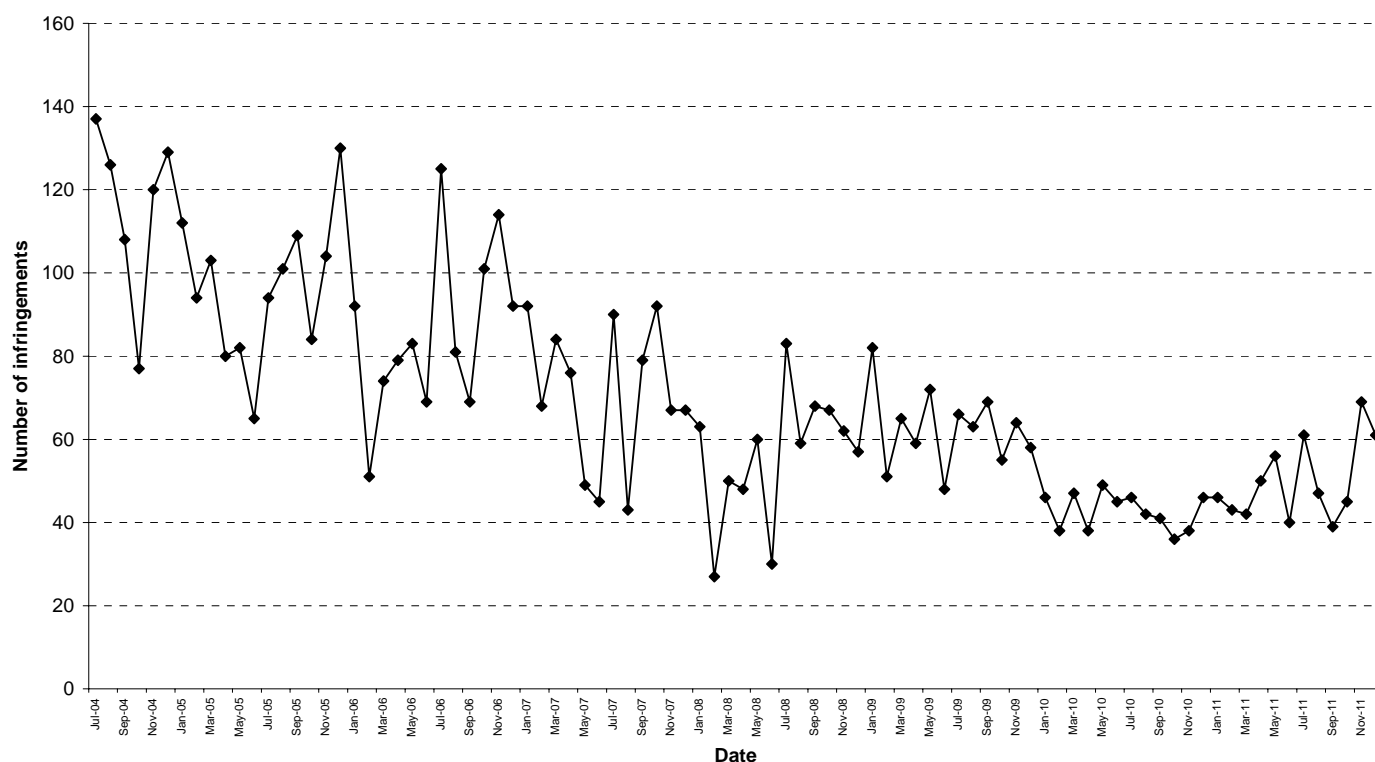
### Crashes at fixed speed camera location

Five years before – February 1998 – February 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	15	15	22	1.71
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	11	11	10	1.254



## Infringements at fixed speed camera location

NORTHCLIFFE DRIVE WARRAWONG



### Summary

The fixed speed camera on Northcliffe Drive, Warrawong was installed in May 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 22 crashes resulting in zero fatalities and 15 injuries. In the five year period 2006 – 2011 there were 10 crashes resulting in zero fatalities and 11 injuries. When compared to the pre installation period, this is a 55 per cent reduction in the annual average number of crashes and a 27 per cent reduction in the annual average number of casualties. This has been a saving of \$456,000 in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

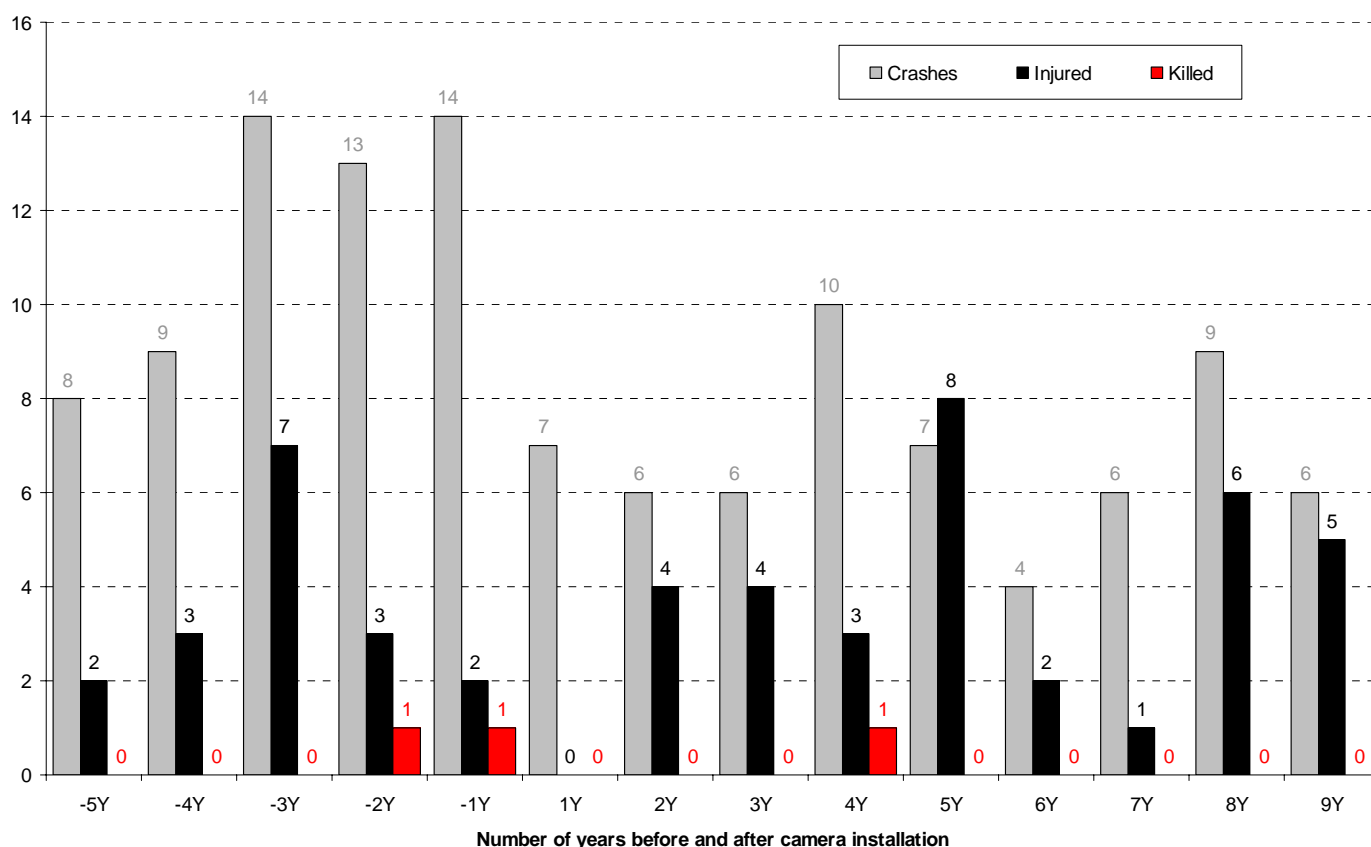
## Fixed digital speed camera – Castle Hill Road, West Pennant Hills

Location: Castle Hill Road, between Pennant Hills Road and Coonara Avenue, West Pennant Hills.

<b>Length description</b>	500m east of camera to 500m west of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	18/07/2002

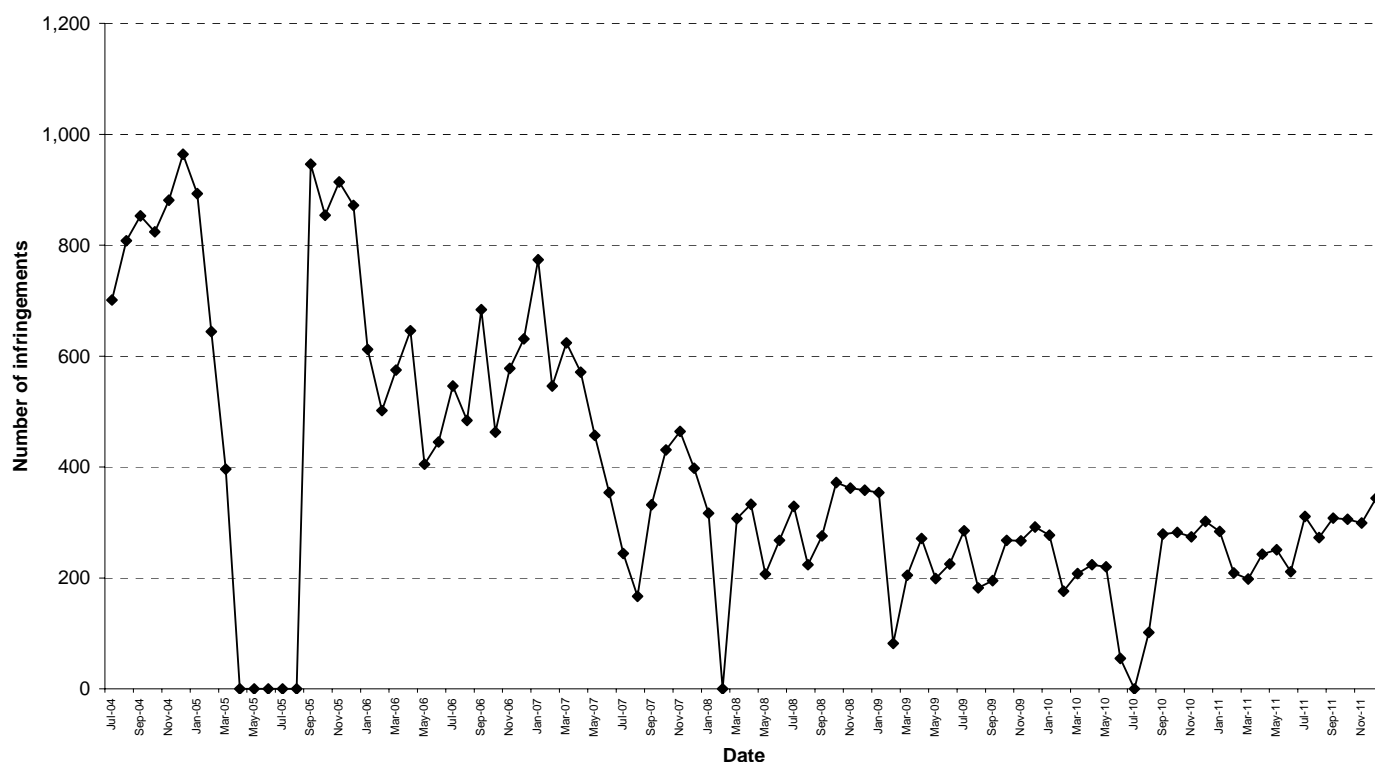
### Crashes at fixed speed camera location

Five years before – April 1997 – April 2002- Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	17	19	58	13.606
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	22	22	32	2.508



## Infringements at fixed speed camera location

CASTLE HILL ROAD WEST PENNANT HILLS



### Summary

The fixed speed camera on Castle Hill Road, West Pennant Hills was installed in July 2002. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 58 crashes resulting in two fatalities and 17 injuries. In the five year period 2006 – 2011 there were 32 crashes resulting in zero fatalities and 22 injuries.

Provisional crash data show there were eight crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

Based on the assessment criteria the speed camera at Castle Hill Road, West Pennant Hills was identified for review. Crashes have reduced at this location, however casualties have increased when comparing the five years prior to the current five year analysis period. A more detailed analysis of the crashes indicates that casualty crashes have reduced by 12 per cent. Traffic volumes have remained steady on Castle Hill Road.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. While speeding has reduced at this location, there are still around 200-300 speeding infringements recorded per month. Based on the reduction in crashes and casualty crashes, and the consistent level of speeding recorded at this location it is recommended that this camera is retained.

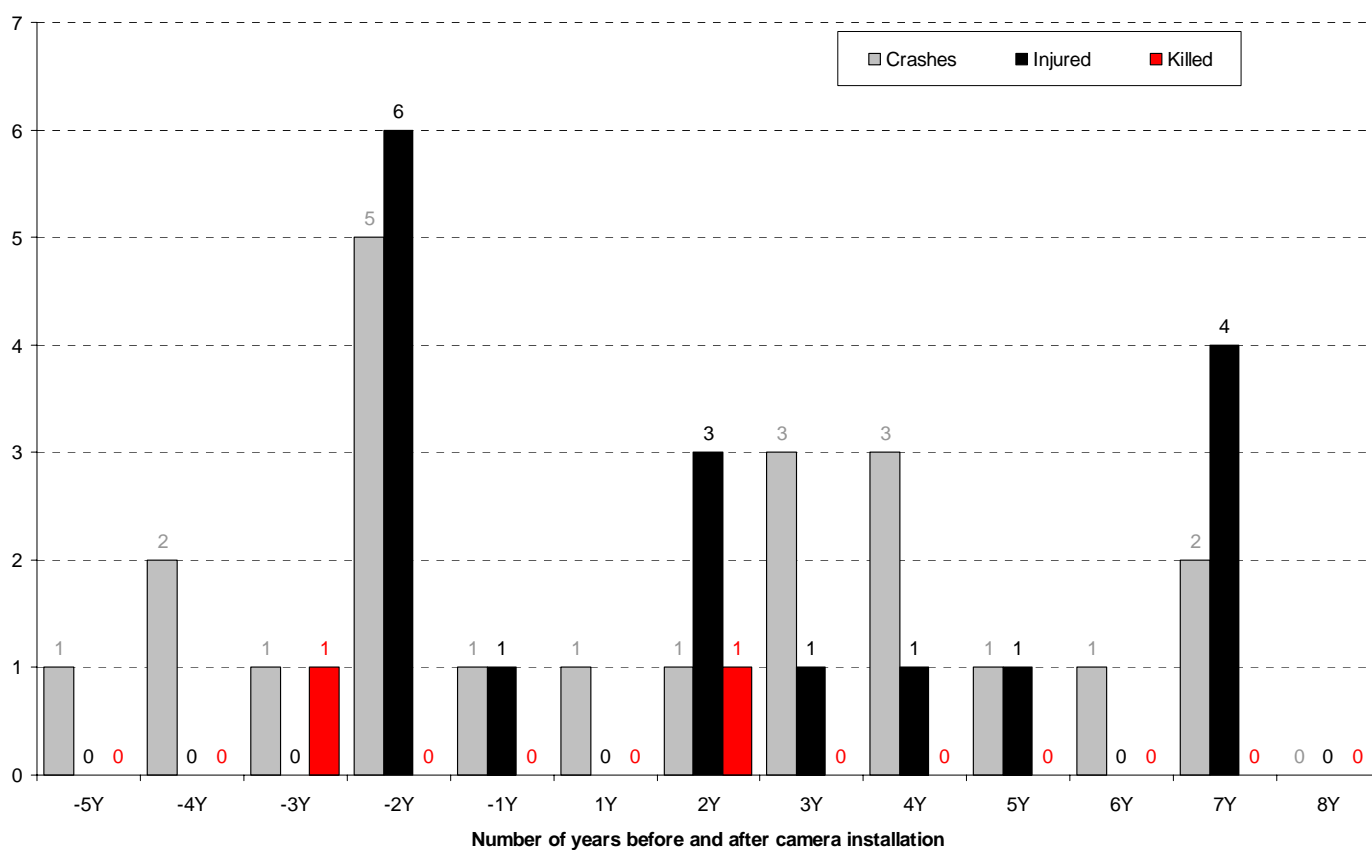
## Fixed digital speed camera – Bruxner Highway, Wollongbar

Location: Bruxner Highway, between Convernys Lane and McLeans Ridges Road, Wollongbar.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	24/02/2003

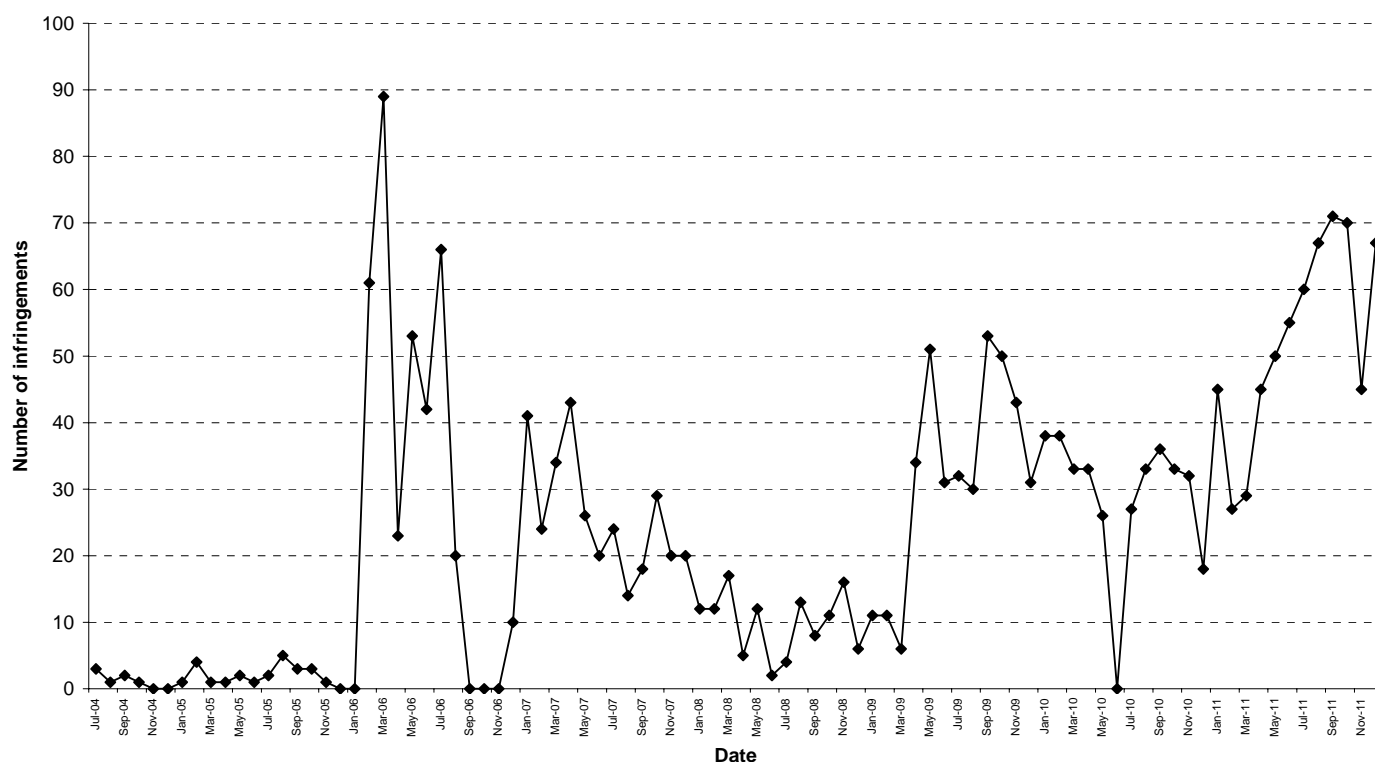
### Crashes at fixed speed camera location

Five years before – November 1997 – November 2002 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	7	8	10	6.632
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	6	6	7	0.684



## Infringements at fixed speed camera location

BRUXNER HWY WOLLONGBAR



### Summary

The fixed speed camera on the Bruxner Highway, Wollongbar was installed in February 2006. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 10 crashes resulting in one fatality and seven injuries. In the five year period 2006 – 2011 there were seven crashes resulting in zero fatalities and six injuries. When compared to the pre installation period, this is a 30 per cent reduction in the annual average number of crashes and a 25 per cent reduction in the annual average number of casualties. This has been a saving of \$5.9 million in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and two injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements from February 2006 may be attributed to the speed limit changing from 100 km/h to 80 km/h. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.



## Fixed digital speed camera – Princes Highway, Wollongong (school zone)

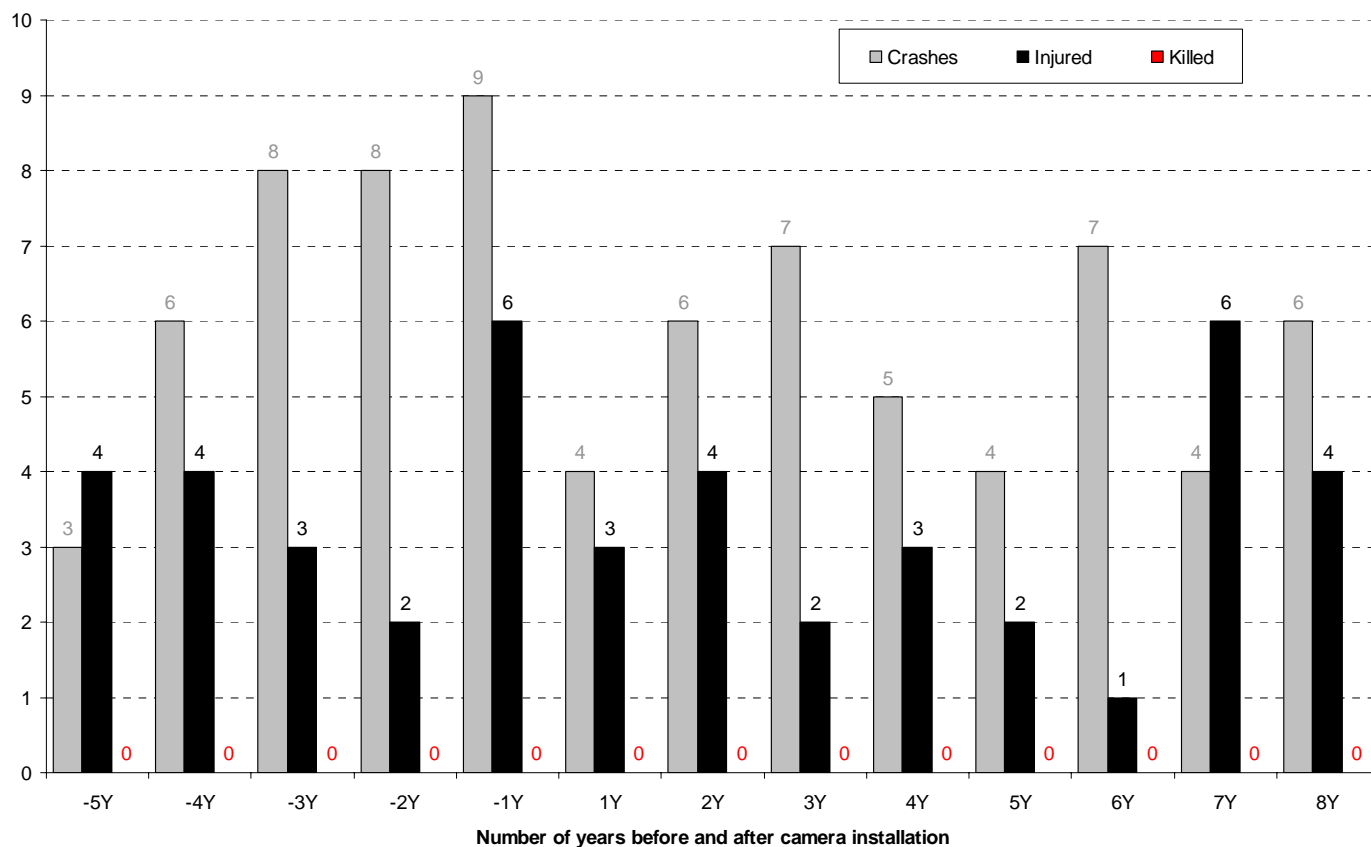
Location: Princes Highway, between Mount Keira Road and Highway Avenue, Wollongong.

School Zone: Illawarra Grammar School, Wollongong Public School, St Theresa Primary School.

<b>Length description</b>	440m north of camera to 180m south of camera
<b>Total length (m)</b>	620 (Patch to Patch)
<b>Started Infringing</b>	15/07/2003

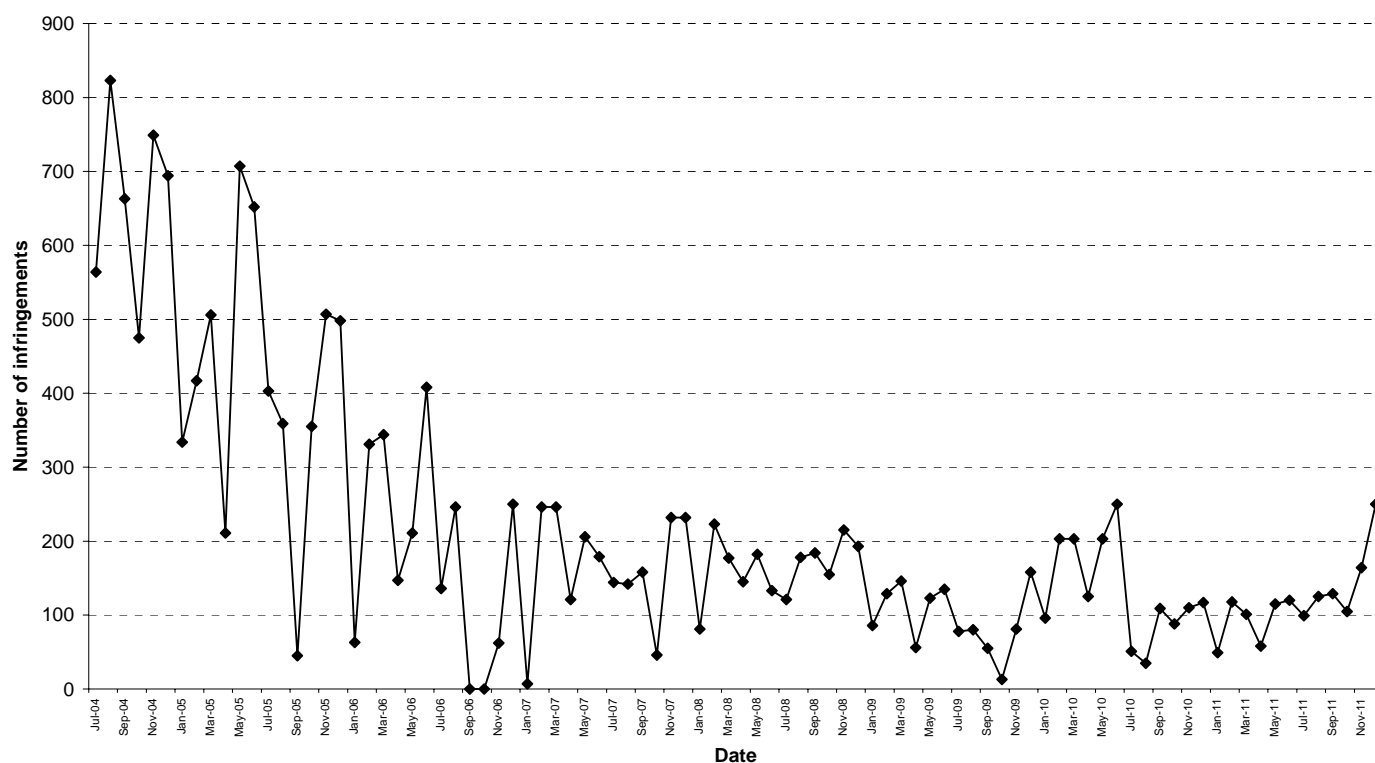
### Crashes at fixed speed camera location

Five years before – April 1998 – April 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	19	19	34	2.166
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	16	16	26	1.824



## Infringements at fixed speed camera location

PRINCES HIGHWAY WOLLONGONG



### Summary

The fixed speed camera on the Princes Highway, Wollongong was installed in July 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 34 crashes resulting in zero fatalities and 19 injuries. In the five year period 2006 – 2011 there were 26 crashes resulting in zero fatalities and 16 injuries. When compared to the pre installation period, this is a 24 per cent reduction in the annual average number of crashes and a 16 per cent reduction in the annual average number of casualties. This has been a saving of \$342,000 in costs to the community.

Provisional crash data show there were four crashes resulting in zero fatalities and three injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

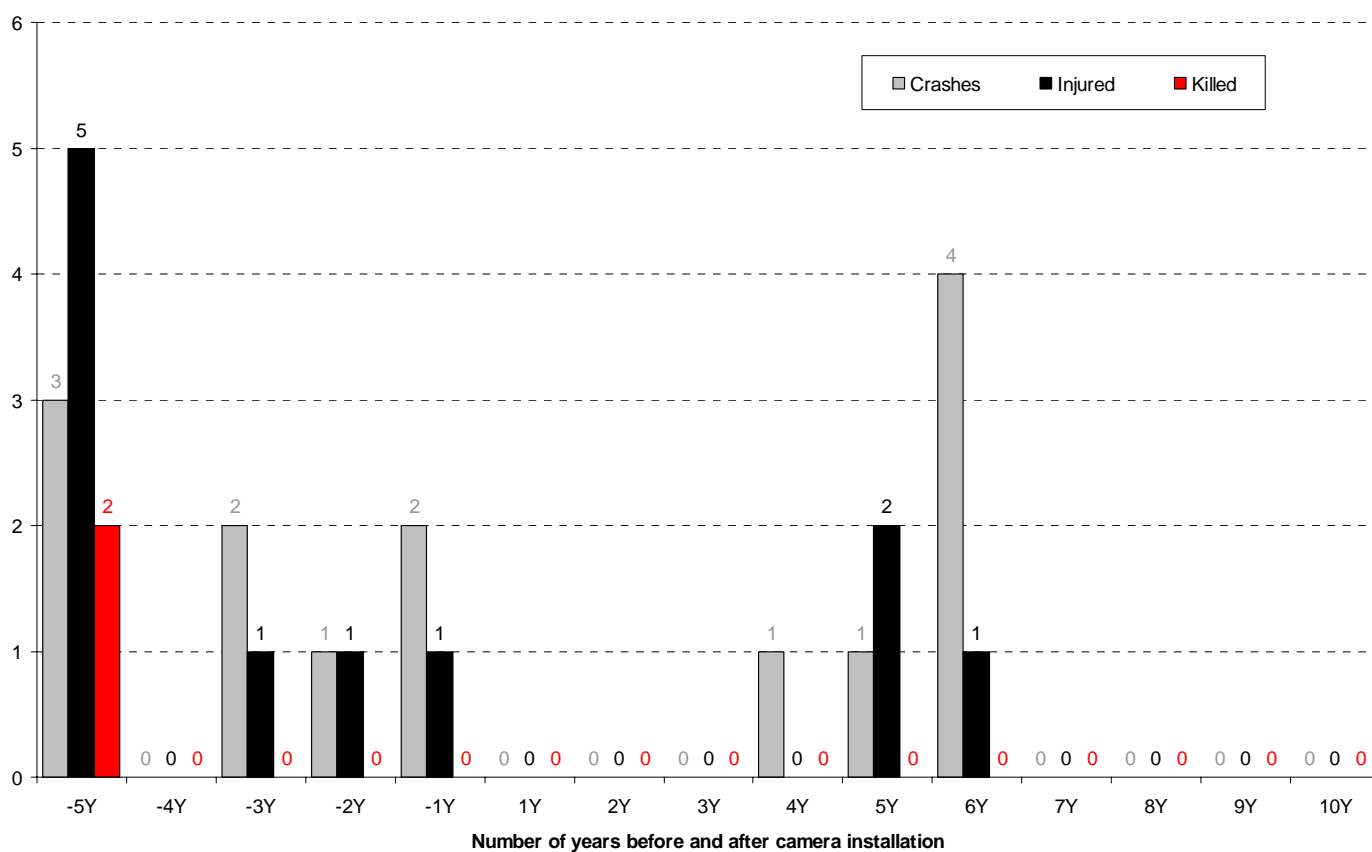
## Fixed digital speed camera – Pacific Highway, Woodburn

Location: Pacific Highway, between Wagner Street and Norman Street, Woodburn.

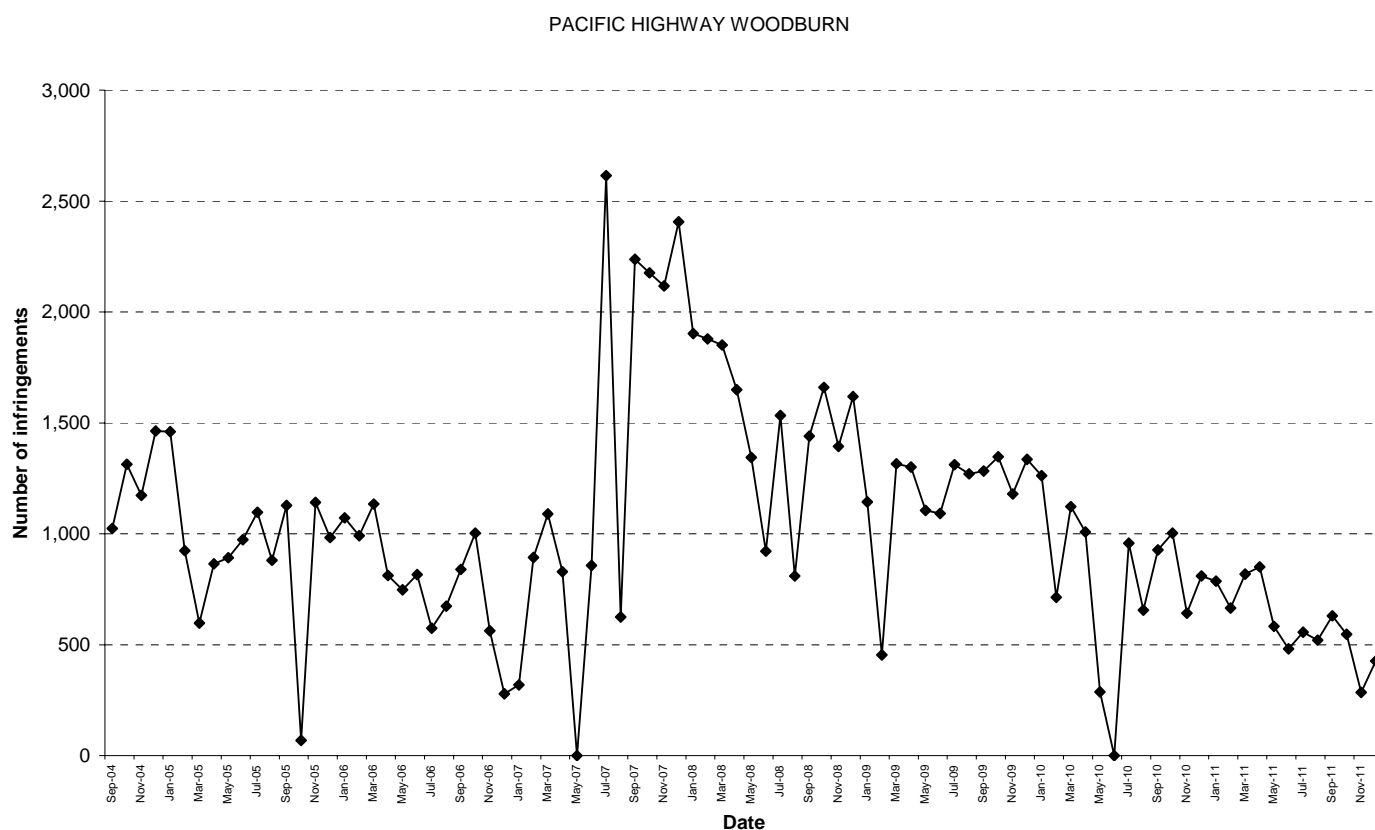
<b>Length description</b>	500m south of camera to 500m north of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	20/03/2001

### Crashes at fixed speed camera location

Five years before – December 1995 to December 2000 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	8	10	8	12.58
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	1	1	4	0.114



## Infringements at fixed speed camera location



### Summary

The fixed speed camera on the Pacific Highway, Woodburn was installed in March 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were eight crashes resulting in two fatalities and eight injuries. In the five year period 2006 – 2011 there were four crashes resulting in zero fatalities and one injury. When compared to the pre installation period, this is a 50 per cent reduction in the annual average number of crashes and a 90 per cent reduction in the annual average number of casualties. This has been a saving of \$12.466 million in costs to the community.

Provisional crash data show there were zero crashes at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. The spike in infringements in June 2007 may be attributed to the speed limit changing from 60 km/h to 50 km/h. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Fixed digital speed camera – Woolloomooloo/ East Sydney

Location: Cross City Tunnel, between McLachlan Avenue and Harbour Street, Woolloomooloo.

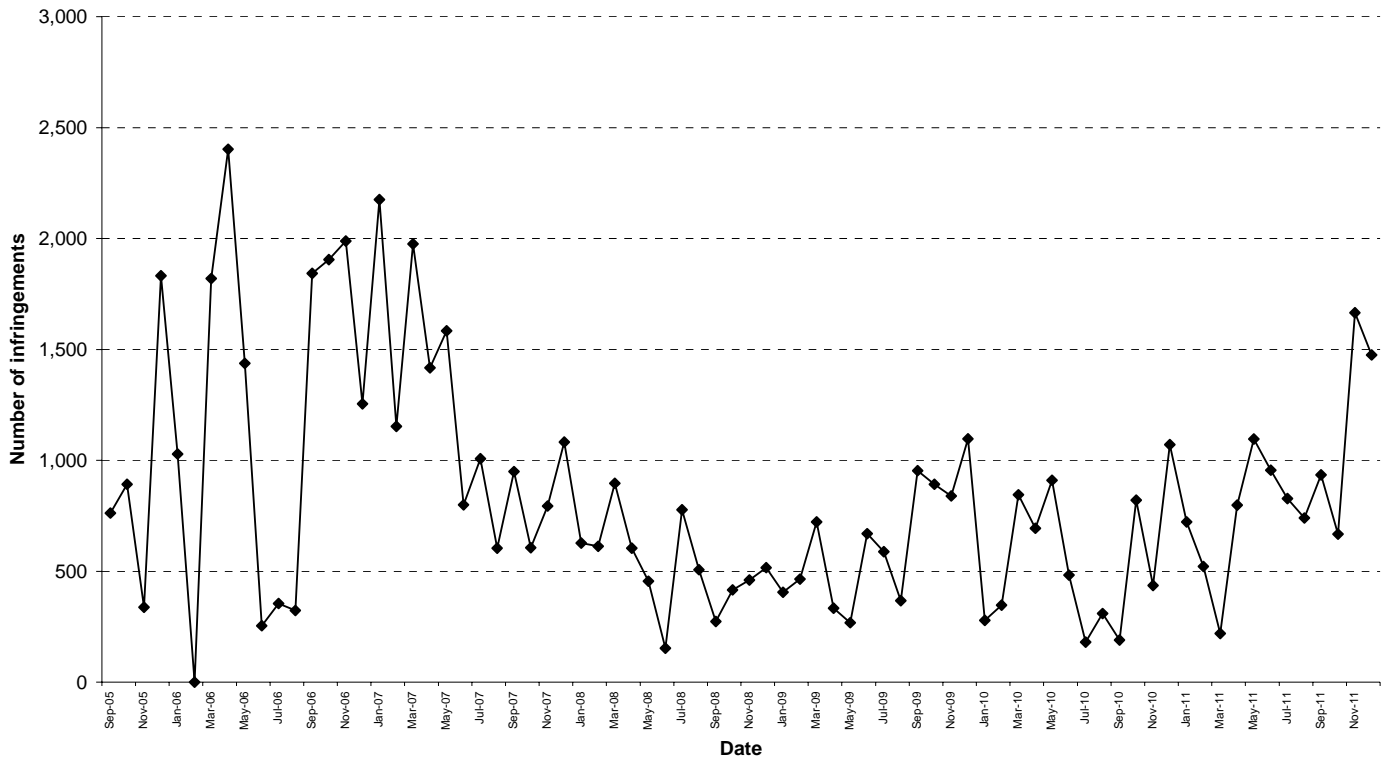
<b>Length description</b>	140m east of camera to 2005m west of camera (eastbound crashes)
	200m east of camera to 1890m west of camera (westbound crashes)
<b>Total length (m)</b>	2145 (eastbound)
	2090 (westbound)
<b>Started Infringing</b>	05/09/2005

## High risk fixed speed camera location – Provisional crash data calendar year 2011

Eastbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	0	3	3	0	0	0
Westbound	Crashes				Casualties		
	Fatal	Injury	Non-casualty	Total	Killed	Injured	Total
	0	0	2	2	0	0	0

## Infringements at fixed speed camera location

CROSS CITY TUNNEL WOOLLOOMOOLOO EAST SYDNEY



## Summary

The fixed speed cameras in the Cross City Tunnel, Woolloomooloo/ East Sydney were installed in September 2005. There are two speed cameras installed at this location.

This location is appropriate for fixed speed camera enforcement as it is a high risk location that is difficult for the NSW Police Force to enforce using traditional methods. Provisional crash data show there were 5 crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since the cameras began operating. Roadworks and camera maintenance may influence the number of infringements issued.

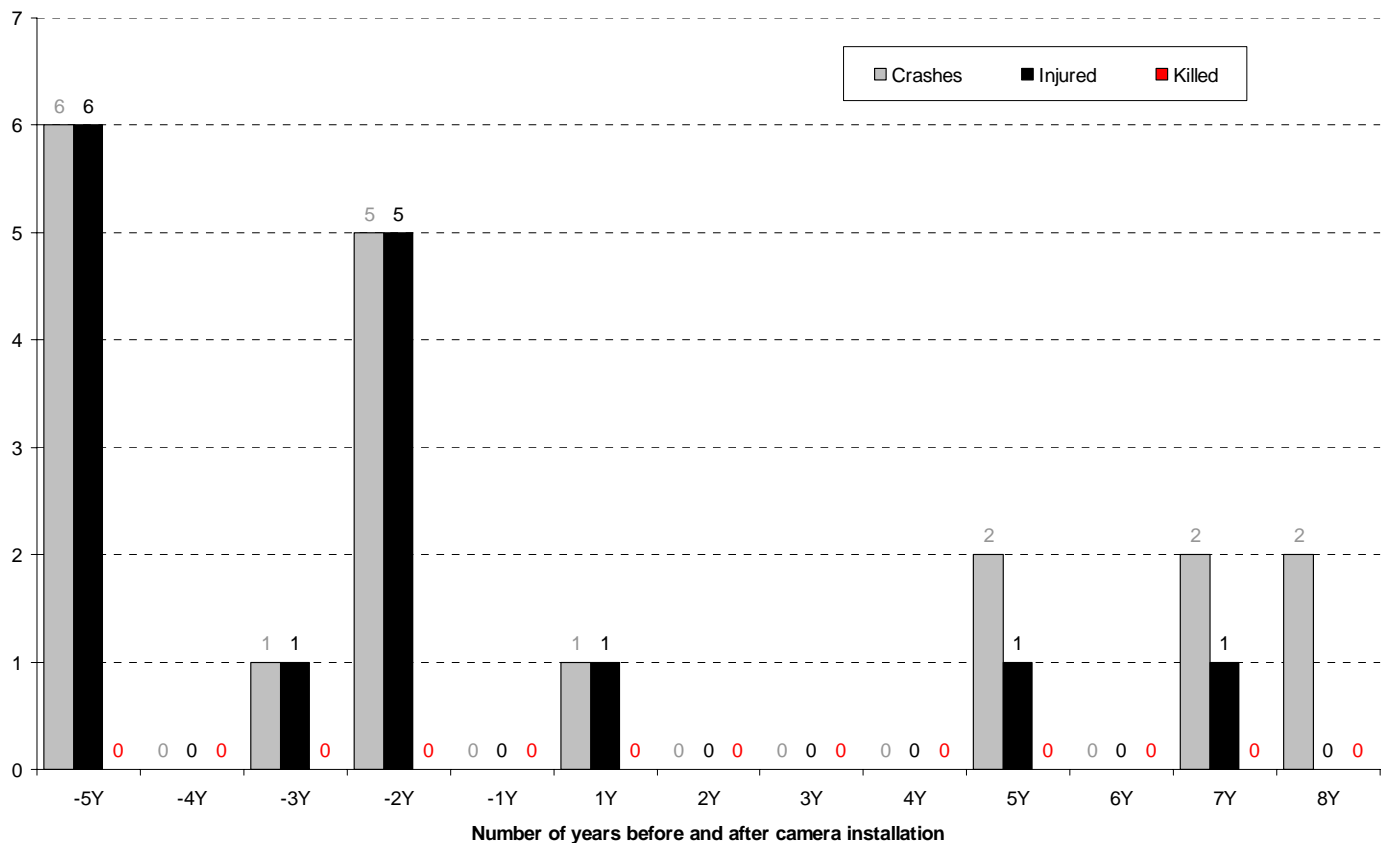
### Fixed digital speed camera – Henry Parry Drive, Wyoming (school zone)

Location: Henry Parry Drive, between Glennie Street and Dwyer Street, Wyoming.  
 School Zone: Our Lady of the Rosary Primary School.

<b>Length description</b>	60m south of camera to 170m north of camera
<b>Total length (m)</b>	230m (Patch to Patch)
<b>Started Infringing</b>	15/07/2003

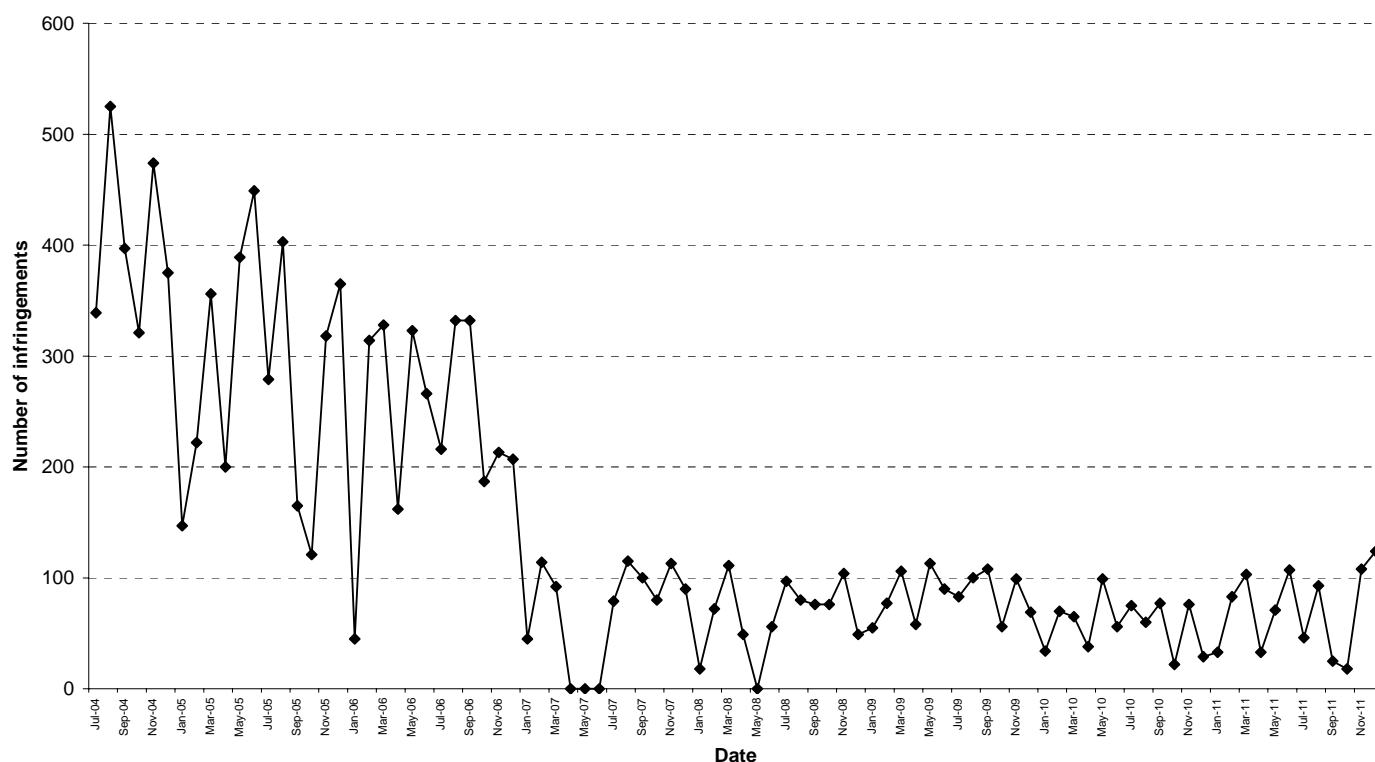
### Crashes at fixed speed camera location

Five years before – April 1998 to April 2003 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	12	12	12	1.368
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
0	2	2	6	0.228



## Infringements at fixed speed camera location

HENRY PARRY DRIVE WYOMING



### Summary

The fixed speed camera on Henry Parry Drive, Wyoming was installed in July 2003. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 12 crashes resulting in zero fatalities and 12 injuries. In the five year period 2006 – 2011 there were six crashes resulting in zero fatalities and two injuries. When compared to the pre installation period, this is a 50 per cent reduction in the annual average number of crashes and a 83 per cent reduction in the annual average number of casualties. This has been a saving of \$1.14 million in costs to the community.

Provisional crash data show there were two crashes resulting in zero fatalities and zero injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

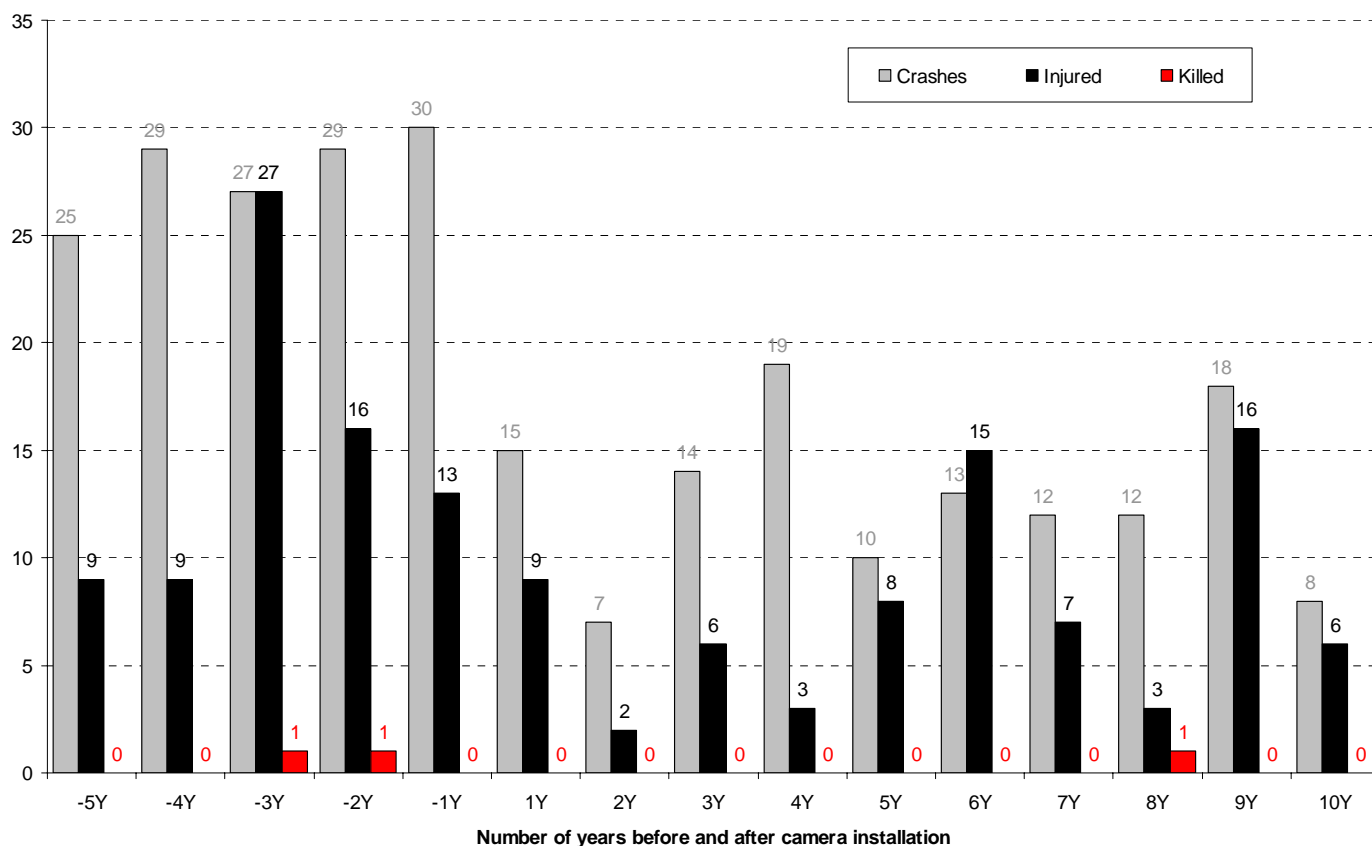
### Fixed digital speed camera – Hume Highway, Yagoona

Location: Hume Highway, between Smith Street and Brennan Avenue, Yagoona.

<b>Length description</b>	500m west of camera to 500m east of camera
<b>Total length (m)</b>	1000
<b>Started Infringing</b>	07/12/2001

### Crashes at fixed speed camera location

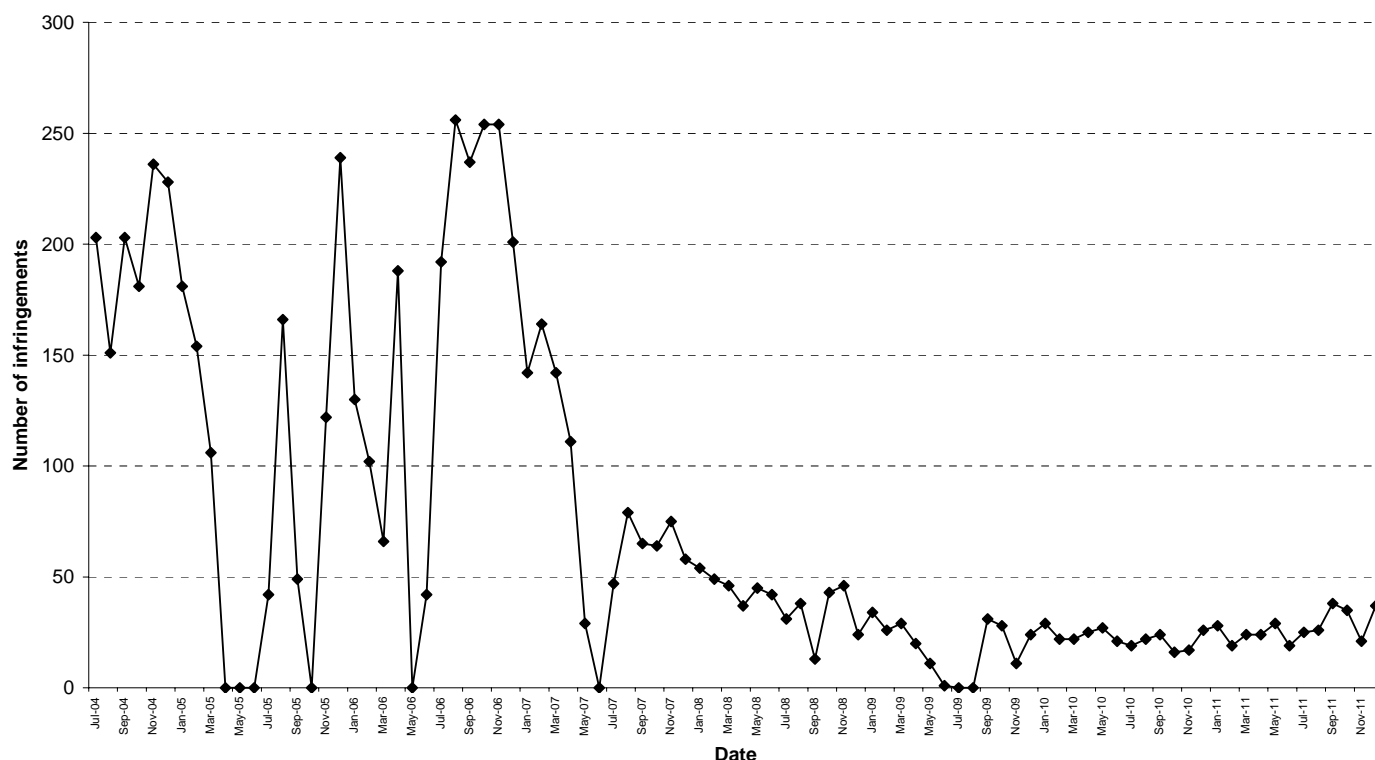
Five years before – September 1996 to September 2001 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
2	74	76	140	20.104
After (most recent five year period) – 2006 to 2011 - Totals				
Fatality Persons	Injury Persons	Casualty Persons	Crashes	Casualty Cost (\$M)
1	47	48	63	11.192





## Infringements at fixed speed camera location

HUME HIGHWAY YAGOONA



### Summary

The fixed speed camera on the Hume Highway, Yagoona was installed in December 2001. There is one camera installed at this location.

The current pre and post installation analysis shows that crashes have decreased at this location. In the five years prior to the installation of the fixed speed camera at this location, there were 140 crashes resulting in two fatalities and 74 injuries. In the five year period 2006 – 2011 there were 63 crashes resulting in one fatality and 47 injuries. When compared to the pre installation period, this is a 55 per cent reduction in the annual average number of crashes and a 37 per cent reduction in the annual average number of casualties. This has been a saving of \$8.91 million in costs to the community.

Provisional crash data show there were eight crashes resulting in zero fatalities and six injuries at this fixed speed camera location in 2011.

The infringement graph details the trend in infringements at this location since July 2004. Infringement data before this date are not available. These data show there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

When assessed against the evaluation criteria in the NSW Speed Camera Strategy, the fixed speed camera at this location is found to be delivering the expected road safety benefits.

## Appendix D: Analysis of the NSW point-to-point enforcement program

### Overview of point-to-point enforcement lengths

	Road	Section	Approximate Length (Km)
1	Mount Ousley Road	Between Picton Road and Gwynneville	14
2	Great Western Highway	Between Meadow Flat and Raglan	27
3	Hume Highway	Between Gundagai and Coolac	20
4	Hume Highway	Between Coolac and Yass	75
5	Newell Highway	Between Forbes and West Wyalong	TBC
6	Monaro Highway	Between Bredbo and Cooma	34
7	New England Highway	Between Muswellbrook and Aberdeen	11
8	New England Highway	Between Muswellbrook and Singleton	46
9	Newell Highway	Between Eumungerie and Gilgandra	27
10	Newell Highway	Between Peak Hill and Tomingley	17
11	Pacific Highway	Between Kew and Port Macquarie	21
12	Pacific Highway	Between Nahiack and Taree	24
13	Pacific Highway	Between Port Macquarie and Kempsey	40
14	Pacific Highway	Between Harwood and New Italy	35
15	Federal Highway	Between Goulburn and Collector	20
16	Pacific Highway	Between Woodburn and Wardell	20
17	Mitchell Highway	Between Molong and Cundumbul	28
18	Golden Highway	Between Sandy Hollow and Merriwa	34
19	Gwydir Highway	Between Glen Innes and Inverell	60
20	Oxley Highway	Between Gunnedah and Tamworth	60
21	Picton Road	Between Wilton and Cataract	16
22	Pacific Highway	Between Urunga and Valla	13
23	Pacific Highway	Between Tyndale and Harwood	TBC
24	Pacific Highway	Between Wardell and Ballina	TBC

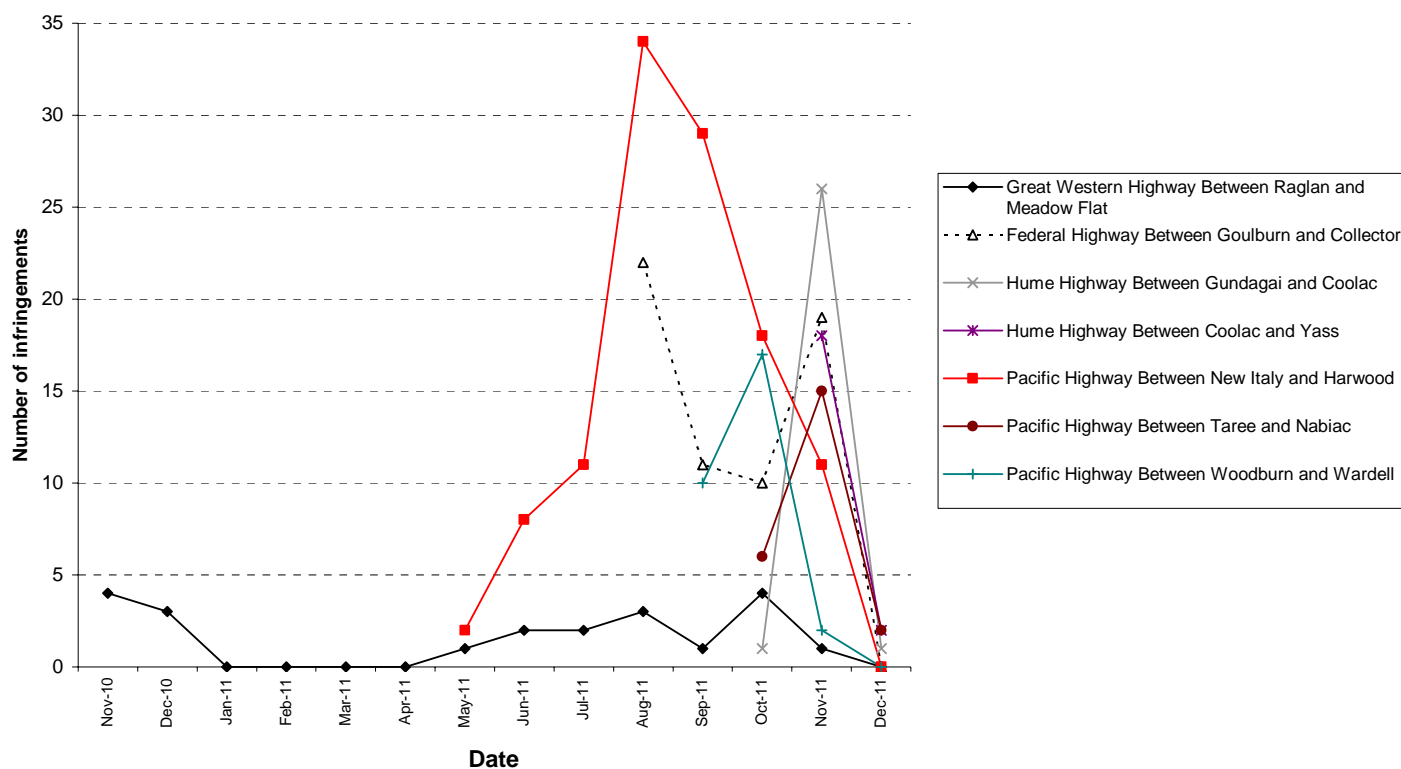
## Crashes and infringements at point-to-point enforcement locations

Road	Approx length (km)	Warning commencement	Enforcement commencement	Before installation heavy vehicle crashes (2006 - 2010)			After installation heavy vehicle crashes 2011			Total Infringements 2011
				Fatal	Injury	Total	Fatal	Injury	Total	
Mount Ousley Road Between Picton Rd and Gwynneville	14	2012 (TBC)	2012 (TBC)	1	19	58	-	-	-	-
Great Western Highway Between Meadow Flat and Raglan	27	31 May 2010	Nov 2010	1*	8*	11*	0	1	3	14
Hume Highway Between Gundagai and Coolac	20	26 Aug 2011	Oct 2011	1	6	16	0	0	0	28
Hume Highway Between Coolac and Yass	75	26 Aug 2011	Oct 2011	2	12	32	1	3	8	20
Newell Highway Between Forbes and West Wyalong	TBC	2012 (TBC)	2012 (TBC)	1	12	18	-	-	-	-
Monaro Highway Between Bredbo and Cooma	34	17 May 2011	Nov 2011	1	0	3	0	0	0	0
New England Highway Between Muswellbrook and Aberdeen	11	16 Dec 2011	Feb 2012	0	2	3	-	-	-	-
New England Highway Between Muswellbrook and Singleton	46	20 Dec 2011	Feb 2012	1	4	12	-	-	-	-
Newell Highway Between Eumungerie and Gilgandra	27	22 Dec 2011	Feb 2012	2	2	7	-	-	-	-
Newell Highway Between Peak Hill and Tomingley	17	22 Dec 2011	Feb 2012	2	1	3	-	-	-	-
Pacific Highway Between Kew and Port Macquarie	21	2012 (TBC)	2012 (TBC)	1	20	30	-	-	-	-
Pacific Highway Between Nabiac and Taree	24	5 Aug 2011	Oct 2011	1	7	25	0	0	3	23
Pacific Highway Between Port Macquarie and Kempsey	40	14 Dec 2011	Feb 2012	0	9	34	-	-	-	-
Pacific Highway Between Harwood and New Italy	35	31 Mar 2010	Jan 2011 (SB) Mar 2011 (NB)	4	16	30	1	5	7	113
Federal Highway Between Goulburn and Collector	20	30 May 2011	Aug 2011	0	3	7	0	0	1	62
Pacific Highway Between Woodburn and Wardell	20	28 Jun 2011	Aug 2011	3	12	22	1	1	3	29
Mitchell Highway Between Molong and Cundumbul	28	2012 (TBC)	2012 (TBC)	0	3	5	-	-	-	-
Golden Highway Between Sandy Hollow and Merriwa	34	1 Mar 2012	May 2012	0	4	4	-	-	-	-
Gwydir Highway Between Glen Innes and Inverell	60	25 Oct 2011	Feb 2012	0	2	4	-	-	-	-
Oxley Highway Between Gunnedah and Tamworth	60	30 Nov 2011	Feb 2012	3	2	7	-	-	-	-
Picton Road Between Wilton and Cataract	16	2012 (TBC)	2012 (TBC)	5	5	16	-	-	-	-
Pacific Highway Between Urunga and Valla	13	2012 (TBC)	2012 (TBC)	2*	8*	14*	-	-	-	-
Pacific Highway Between Tyndale and Harwood	TBC	TBC	2013 (TBC)	0	12	14	-	-	-	-
Pacific Highway Between Wardell and Ballina	TBC	TBC	2013 (TBC)	2	10	18	-	-	-	-

\* Note: Before data for Great Western Highway between Meadow Flat and Raglan are for 2005 – 2009; before data for Pacific Highway between Urunga and Valla are for Jul 2006 – June 2011.

## Infringements at point-to-point enforcement locations

Point-to-point speed infringements to December 2011



### Summary

A large proportion of the point-to-point enforcement program was rolled out during 2011. Of the 24 lengths that are part of the program, two point-to-point lengths (Great Western Highway, Meadow Flat to Raglan; Pacific Highway, Harwood to New Italy) were installed in 2010, 13 lengths were installed during 2011 and the remaining nine are being rolled out in 2012 and 2013. Of these lengths only Great Western Highway between Meadow Flat and Raglan enforced for the entire 2011 review period.

At the Great Western Highway length between Meadow Flat and Raglan in the period 2005 to 2009 there were 11 heavy vehicle crashes resulting in one fatality and eight injuries. In 2011 there were three heavy vehicle crashes resulting in zero fatalities and one injury. During 2011, 14 speeding infringements were issued at this length.

A total of 289 speeding infringements were issued at point-to-point lengths in 2011. Early infringement data for average speed offences in point-to-point enforcement lengths show a high level of compliance within the enforcement lengths and a low number of infringements. Roadworks and camera maintenance may influence the number of infringements issued.