

# Speed Camera Programs: 2018 Annual Review

Author:	Centre for Road Safety	
Date:	February 2019	
Version:	1.0	
Division:	Safety, Environment & Regulation	

# Contents

1	Execu	tive summary	
	1.1	How NSW reviews speed cameras	
	1.2	Key findings	6
2	Introdu	lction	10
	2.1	The NSW Speed Camera Strategy	10
	2.2	Annual review of NSW speed camera programs	
	2.3	The speeding problem	
	2.4	Safety benefits of camera enforcement	
	2.5	Transparent management of NSW speed camera programs	11
3	Types	of speed camera programs in NSW	12
-	3.1	Fixed speed cameras	
	3.2	Red-light speed cameras	
	3.3	Mobile speed cameras	
	3.4	Average speed cameras	13
4	Review	v Criteria for reviewing speed cameras	14
•	4.1	Measuring the performance of speed camera programs	
	4.2	Measuring the performance of individual speed cameras	
5	Data c	ontext	16
U	5.1	Road crash data	
	5.2	Injury severity	
6	Data n	arameters	10
0	6.1	Five years of data	
	6.2	Time periods analysed	
	6.3	Crashes selected for analysis	
	6.4	State-wide crash data	
	6.5	State-wide comparison traffic volume data	
	6.6	State-wide speed survey data	
	6.7	Infringement data	
7	Review	v methodology	21
,	7.1	Fixed speed camera locations	
	7.2	Red-light speed camera locations	
	7.3	Mobile speed camera locations	
	7.4	Average speed enforcement lengths	
8	Recult	s and discussion	28
0	8.1	Fixed speed cameras	
	8.2	Red-light speed cameras	
	8.3	Mobile speed cameras	
	8.4	Average speed cameras	
	-		

# Appendices

A.	NSW fixed speed camerasA	1
	Most infringing locations	
	Warning mode locations	
	High risk locations	
В.	NSW red-light speed camerasB	1
	Most infringing locations	
C.	NSW mobile speed camerasC	1
D.	NSW heavy vehicle average speed camerasD	1

# **1 Executive summary**

The purpose of the annual NSW Speed Camera Review is to monitor speed cameras in NSW to ensure they are having a positive road safety effect. This report was prepared in early 2019, using data up until the end of the 2017 calendar year.

The NSW Centre for Road Safety (CRS) has reviewed all NSW speed cameras against the criteria in the *NSW Speed Camera Strategy 2012* (the Strategy), culminating in this report. This document is the seventh in a series of annual reports that addresses the recommendation from the 2011 NSW Auditor-General's audit of speed cameras, to provide the community with information about the road safety impact of speed cameras.

This report has identified that overall trauma reductions at fixed, red-light and average speed camera locations have exceeded the trauma reductions observed across NSW since those cameras were installed. In addition, the mobile speed camera program continues to deliver road safety benefits, compared to the period before the program was reintroduced onto NSW roads.

If an individual camera is found not to have a positive road safety effect, CRS will consider alternative road safety measures at the location. The findings from this annual review also guide future speed enforcement priorities.

# 1.1 How NSW reviews speed cameras

The review criteria for speed camera programs and individual camera locations are provided within the Strategy. Broadly speaking, review recommendations are measured by two key criteria:

- Reduction in casualty crashes and casualties, and
- Reduction in infringement rates.

At least five years of crash and casualty data are required to make an assessment of a camera's safety benefit. The criteria and methodology are outlined within sections 4 and 7 of this review.

## 1.1.1 Fixed and red-light speed cameras

Most fixed speed cameras, and approximately half of red-light speed cameras, have now been installed for at least 5 years. As a result, there is sufficient data available to reliably assess road safety benefits, and this review has developed recommendations to retain, monitor or review these cameras.

Where there is not yet 5 years of post-installation data available, recommendations have not been made.

#### 1.1.2 Mobile speed cameras

Because mobile speed cameras are designed to generally deter speeding across the road network, and because they move regularly, the annual review examines crash and speed data for the entire state, rather than individual mobile speed camera locations.

## 1.1.3 Average speed cameras

There are now 20 average speed enforcement lengths where 5 years of data are available, and the program continues to deliver a road safety benefit.

NSW is currently expanding the heavy vehicle average speed camera program to metropolitan areas.

# 1.2 Key findings

## 1.2.1 Fixed speed camera program

Program size as at 31 December 2017: 139 cameras at 110 locations<sup>1</sup>

#### Median camera installation date: 30 April 2003

Overall, there has been a reduction in fatal crashes and casualty crashes at fixed speed camera locations since the cameras were installed, compared with the five year period prior to installation.

Specifically, at fixed speed camera locations there has been a:

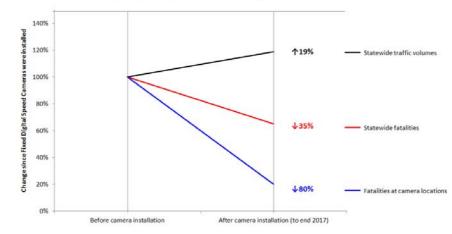
- 32 per cent reduction in casualty crashes
- 80 per cent reduction in fatalities
- 37 per cent reduction in injuries.

The reduction in fatalities and injuries represents a saving of \$549 million to the community.

The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period:

- 13 per cent reduction in casualty crashes
- 35 per cent reduction in fatalities
- 15 per cent reduction in injuries.

It should also be noted, alongside the crash data outlined above, that there has also been a notable increase in traffic volumes. Over the periods that fixed digital speed cameras have been reviewed within this report, there has been a 19 per cent increase in traffic volume across NSW.<sup>2</sup>



NSW Fixed Digital Speed Camera Program

<sup>&</sup>lt;sup>1</sup> Of the 110 fixed speed camera locations, seven locations operate in warning mode and five locations are high risk sites located in tunnels. Recommendations are not provided for these warning mode and high risk locations.

<sup>&</sup>lt;sup>2</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

## Individual Camera Locations

Of the 110 fixed speed camera locations, seven locations operate in warning mode and five locations are high risk sites located in tunnels. Recommendations are not provided for these 12 locations.

For the remaining 98 fixed speed camera locations:

- 79 locations were found to offer continued safety benefits,
- 2 locations were identified for ongoing monitoring in future years,
- 4 locations had insufficient data to review, and
- 13 locations were ineligible for review.

No fixed digital speed camera locations were identified for review.

None of the 10 highest infringing fixed speed camera locations were identified in this review for ongoing monitoring.

## 1.2.2 Red-light speed camera program

Program size as at 31 December 2017: 191 cameras at 171 intersections

#### Median camera installation date: 27 June 2011

Overall, there has been a reduction in fatal crashes and serious injury crashes at redlight speed camera locations since the cameras were installed, compared with the five year period prior to installation.

Specifically, at red-light speed camera locations there has been a:

- 38 per cent reduction in fatal and serious injury crashes
- 74 per cent reduction in fatalities
- 40 per cent reduction in serious injuries
- 48 per cent reduction in pedestrian casualties.

The reduction in fatalities and serious injuries represents a saving of \$174 million to the community.

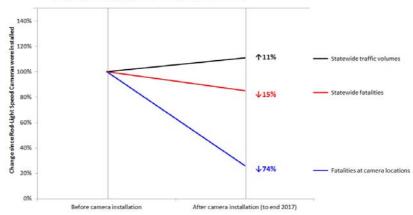
The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period:

- No change in fatal and serious injury crashes
- 15 per cent reduction in fatalities
- No change in serious injuries
- 27 per cent reduction in pedestrian casualties.

It should also be noted, alongside the crash data outlined above, that there has also been a notable increase in traffic volumes. Over the period that red-light speed cameras have been reviewed within this report, there has been an 11 per cent increase in traffic volume across NSW.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

NSW Red-Light Speed Camera Program



#### Individual Camera Locations

Of the 171 red-light speed camera locations, 80 locations have not yet been installed for 5 years. Recommendations are not provided for these 80 locations.

For the remaining 91 locations:

- 72 locations were found to offer continued safety benefits,
- 18 locations were identified for ongoing monitoring in future years, and
- 1 location was ineligible for review.

None of the 10 highest infringing red-light speed camera locations were identified for review or ongoing monitoring.

#### 1.2.3 Mobile speed camera program

#### Program size as at 31 Dec 2017: 7,000 hrs of enforcement / month at 1,024 locations

Annual speed survey data indicate that the mobile speed camera program continues to deliver road safety benefits, compared to results prior to the reintroduction of the mobile speed camera program in 2010.

The speed survey results show that there has been a decrease in the proportion of light vehicles exceeding the speed limit over the last nine years, for all speed zones. When comparing the 2017 results against the 2016 results there has been a decrease in the percentage of light vehicles exceeding the speed limit by up to 10km/h in all speed zones except for in the 110km/h zone. The percentage of vehicles exceeding the speed limit by 10km/h or more has decreased in all speed zones except in the 90km/h, 100km/h and 110km/h.

The speed survey results also indicate that there is a reduced proportion of heavy vehicles exceeding the speed limit over the last nine years; but while this is true for most speed zones, it is not the case for exceeding the speed limit by 10km/h or more in 100km/h and 110km/h zones.

In 2017 there were a total of 21,347 infringements issued from mobile speed camera enforcement resulting in \$4.6 million of fines. The total number of mobile speed camera infringements issued in 2017 decreased by 27 per cent compared to 2016.

Over 99 per cent of vehicles passing mobile speed cameras are not infringed for speeding, and this high rate of compliance has remained consistent since 2010 when the program was reintroduced in NSW.

The mobile speed camera program continues to deliver road safety benefits when compared to the most recent period without the program in operation, and there has been a 14 per cent increase in traffic volume across NSW since the mobile speed camera program was reintroduced in 2010.<sup>4</sup>

#### 1.2.4 Average speed camera program

Program size as at 31 December 2017: 25 lengths

Median camera installation date: 16 December 2011

Overall, there has been a reduction in fatal crashes and casualty crashes involving a heavy vehicle on NSW average speed enforcement lengths since those lengths were installed, compared with the five year period prior to installation.

Across heavy vehicle average speed enforcement lengths, there has been a:

- 22 per cent reduction in casualty crashes involving a heavy vehicle
- 44 per cent reduction in fatalities from crashes involving heavy vehicles
- 4 per cent reduction in serious injuries from crashes involving heavy vehicles.

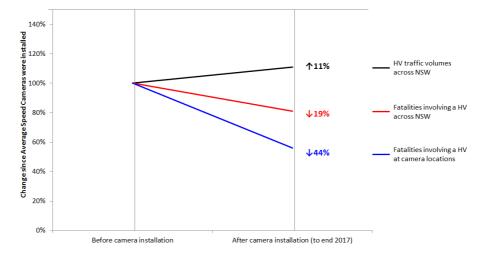
The reduction in fatalities and serious injuries represents a saving of \$138 million to the community.

The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period for crashes involving heavy vehicles:

- 10 per cent reduction in casualty crashes involving a heavy vehicle
- 19 per cent reduction in fatalities from crashes involving heavy vehicles
- 10 per cent increase in serious injuries from crashes involving heavy vehicles.

It should also be noted, alongside the crash data outlined above, that there has been a notable increase in heavy vehicle traffic volumes. Over the periods that average speed enforcement lengths have been reviewed within this report, there has been an 11 per cent increase in heavy vehicle volumes across NSW.<sup>5</sup>

NSW is currently expanding the heavy vehicle average speed camera program to metropolitan areas, and CRS will continue to monitor the program.



#### NSW Heavy Vehicle Average Speed Camera Program

<sup>&</sup>lt;sup>4</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

<sup>&</sup>lt;sup>5</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

# 2 Introduction

# 2.1 The NSW Speed Camera Strategy

The *NSW Speed Camera Strategy* (the Strategy) provides an integrated framework for speed enforcement in NSW, and aims to improve the transparency of NSW speed camera programs. The Strategy was developed in consultation with the NSW Police Force and NRMA Motoring and Services, and reinforces the Government's commitment to reducing fatalities and serious injuries on NSW roads.

The NSW Auditor-General has found that speed cameras change driver behaviour and improve road safety.<sup>6</sup> The Auditor-General also recommended that speed camera performance information be regularly made available to the public. One of the key actions in the Strategy is therefore an annual review of speed camera programs against defined criteria.

# 2.2 Annual review of NSW speed camera programs

This annual review monitors automated speed enforcement in NSW. This includes fixed speed cameras, red-light speed cameras, mobile speed cameras and average speed cameras. However, this does not include the speed enforcement conducted by the NSW Police Force.

This report was prepared in early 2019, using data up until the end of the 2017 calendar year. Detailed analysis for NSW speed camera locations is provided within Appendices A - D of this report.

However, detailed analysis is not included for fixed speed cameras operating in warning mode.<sup>7</sup> Crash and infringement data is instead provided for these cameras, within Appendix A. Detailed analysis is also not included for fixed speed cameras at five high risk tunnel locations. Speed cameras were generally installed at these locations when the tunnel was constructed, and therefore no pre-installation data are available for analysis.

Based on the findings of the annual review, cameras which are not delivering the expected road safety benefits will be more comprehensively investigated. These comprehensive investigations may result in the removal and relocation of the camera.

The findings from the annual review also inform future speed enforcement operations, and address NRMA Motoring & Services' request for an assessment of all high infringing speed camera locations.

# 2.3 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 crashes in NSW.

<sup>&</sup>lt;sup>6</sup> <u>https://www.audit.nsw.gov.au/ArticleDocuments/200/Improving Road Safety Media Release.pdf.aspx?Embed=Y</u>
<sup>7</sup> For speed cameras operating in warning mode, warning letters are issued to motorists detected speeding, unless they exceed the speed limit by more than 30km/h, in which case a court attendance notice is issued and drivers face significant penalties. A three-strikes system also applies, where if a registered operator of a vehicle is issued two warning letters from the one warning mode camera, an infringement will be issued for a third offence and any further offences at that location.

Speeding increases the risk of having a crash, and increases the risk of death or serious injury in the event of a crash. Studies of survival and impact speed show that small increases in travel speed can result in large increases in braking distances and impact speed, resulting in both an increased risk of a crash and a more severe outcome. This is especially the case for crashes with less protected road users such as pedestrians and cyclists.

# 2.4 Safety benefits of camera enforcement

Speed camera enforcement is an important road safety initiative with proven road safety benefits, and is a commonly employed method of speed enforcement in many best practice road safety jurisdictions worldwide. Speed enforcement helps to reduce the incidences of speeding on our roads, which in turn reduces the risk of crashes and reduces the likelihood of death or serious injuries in the event of a crash.

Speed enforcement activities aim to reduce speeding by increasing the perceived likelihood of being caught and punished. Speed cameras generally tend to detect an initial high number of infringements followed by a rapid and sustained decrease in infringements as drivers modify their behaviour. This is also reflected by a reduction in crashes over that time.

Appendix A contains graphs of the infringement trends for individual NSW fixed speed camera locations.

# 2.5 Transparent management of NSW speed camera programs

#### 2.5.1 Speed camera locations are available to drivers

All speed cameras in NSW are signposted and mobile speed camera vehicles are clearly marked.

The NSW Centre for Road Safety website (<u>http://roadsafety.transport.nsw.gov.au</u>) lists all speed camera locations in NSW, allowing members of the public to find the locations of all fixed, red-light and mobile speed cameras, and the positions of all average speed camera zones.

Members of the public are also able to nominate locations for speed cameras via the safer roads website (<u>www.saferroadsnsw.com.au</u>).

#### 2.5.2 Speed camera revenue directly funds road safety initiatives

All fines from speed and red light cameras are paid into the Community Road Safety Fund. This funds road safety initiatives including engineering works, enhanced enforcement by the NSW Police Force, public education campaigns and community grants.

Speeding fines issued by police are not paid into the Community Road Safety Fund.

# **3** Types of speed camera programs in NSW

Speed cameras are automated speed enforcement tools that supplement enforcement conducted by the NSW Police Force.

The NSW Police Force routinely nominates locations to be considered for automated speed enforcement, as cameras can operate in locations that may be difficult for police to enforce. Members of the public are also able to nominate locations for speed cameras, via the NSW safer roads website at <u>www.saferroadsnsw.com.au</u>.

Table 1 shows the four types of speed cameras used in NSW.

Speed cameras used in NSW			
Camera Type	Main purpose	Introduced	Program Size (as at 31 Dec 2017)
Fixed speed cameras	Location specific, to address black spot / high risk locations	1997	139 cameras at 110 locations <sup>8</sup>
Red-light speed cameras	Location specific, to address high risk intersections	2009	191 cameras at 171 intersections.
Mobile speed cameras	General network deterrence	Re-introduced in 2010. (This program was first introduced in 1991, but ceased operation in Dec 2008)	1,024 locations, 7,000 hours of enforcement/month
Average speed cameras	Route enforcement (for heavy vehicles only)	2010	25 lengths

Table 1: Types of speed camera enforcement in NSW
---

# 3.1 Fixed speed cameras

Fixed speed cameras are located at road lengths where there is a demonstrated crash history or a high crash risk. These cameras detect and deter speeding at a specific location on the road network.

# 3.2 Red-light speed cameras

Red-light speed cameras are installed at signalised intersections where drivers are vulnerable to right angle crashes and there is an elevated risk of a pedestrian crash. These cameras detect and deter both speeding and red-light running, both of which can result in severe injuries even in lower speed crashes.

<sup>&</sup>lt;sup>8</sup> Of the 109 fixed speed camera locations, seven locations operate in warning mode and five locations are high risk sites located in tunnels. Recommendations are not provided for these warning mode and high risk locations.

# 3.3 Mobile speed cameras

Mobile speed cameras are moved around the road network at various times and locations. This means drivers are less able to predict where enforcement will occur, and so are more likely to comply with the speed limit more often.

Mobile speed cameras are operated from highly visible vehicles. Enforcement is conducted by private contractors that are managed by Roads and Maritime Services. The prevailing speed limit is displayed on a warning sign so that motorists are aware of the speed limit and the mobile speed camera.

The benefit of mobile speed cameras in reducing speeding is not limited to mobile speed camera locations or the time the camera is located there; they produce a sustained change in driver behaviour by increasing the real and perceived likelihood that speeding can be enforced anywhere at any time.

# 3.4 Average speed cameras

The NSW average speed camera program addresses heavy vehicle speeding along travel routes with a demonstrated history of heavy vehicle crashes and/or speeding. The program targets heavy vehicles because they are over-represented in crashes on known heavy vehicle routes.

Average speed enforcement works by measuring the amount of time it takes a heavy vehicle to travel between 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.

# 4 Review Criteria for reviewing speed cameras

Speed cameras are used in NSW to reduce the number of people killed and injured in crashes.

The following sections outline the criteria that guide the review of speed camera performance in NSW.

# 4.1 Measuring the performance of speed camera programs

Program	Measure of Performance		
Fixed speed camera program	Reduction in vehicles speeding at fixed speed camera locations		
	Reduced frequency or severity of crashes at fixed speed camera locations		
Red-light speed	Reduction in frequency and severity of crashes at enforced intersections		
camera program	Reduction in frequency and severity of crashes at all signalised intersections (due to deterrent effect across the network)		
Mahila anad	Reduction in road trauma across the entire road network		
Mobile speed camera	Reduction in speed-related crashes across the entire road network		
program	Reduction in speeding across the entire road network		
Average speed	Reduction in heavy vehicle speeding on enforcement lengths		
camera program	Reduction in the frequency and severity of heavy vehicle crashes on enforcement lengths		

Table 2: Criteria for measuring the performance of speed camera programs

Results for the above are presented in Section 8.

# 4.2 Measuring the performance of individual speed cameras

Camera Type	Performance data	Measure of performance
Fixed speed	Speeds	Reduction in vehicles speeding within 500 metres of the camera
	Compliance data	Increase in compliance at camera location and/or reduction in infringement rates
cameras	Crash data	Reduction in casualties and crashes within 500 metres of the camera
	Risk	Reduction in risk at the location (for example low level of speeding and/or crashes in tunnels)
	Speeds	Reduction in vehicles exceeding speed limit at the intersection
Red-light speed cameras	Compliance data	Increase in compliance at the intersection and/or reduction in infringement rates
	Crash data	Reduction in casualties and crashes at intersection
Mobile speed cameras	Annual speed surveys	Reduction in vehicles exceeding speed limit across the road network, by testing a random sample of locations
	Compliance data	Increase in compliance rates and/or reduction in infringement rates
	Crash data	Reduction in crashes and casualties across NSW
	Speeds	Reduction in heavy vehicle speeding within enforcement lengths
Average speed camera program	Compliance data	Increase in heavy vehicle compliance within the enforcement length and/or reduction in heavy vehicle infringement rates
	Crash data	Reduction in heavy vehicle crashes within enforcement lengths

 Table 3: Criteria for measuring the performance of individual speed cameras

Results for the above are presented in Appendices A - D.

# 5 Data context

# 5.1 Road crash data

The crash statistics recorded by Transport for NSW in the CRS crash recording database, CrashLink, are confined to those crashes which conform to the national guidelines for reporting and classifying road vehicle crashes<sup>9</sup>, based on the following criteria:

- The crash was reported to the Police,
- The crash occurred on a road open to the public,
- The crash involved at least one moving road vehicle, and
- The crash involved at least one person being killed or injured or at least one motor vehicle being towed away.

The method of reporting tow away crash data changed in October 2014, and as such is no longer comparable to the before period. As a result, this review has focussed on casualty, fatal and serious injury crashes, compared to some of the reviews completed in previous years. This is further discussed in section 7.

# 5.2 Injury severity

Crash data is presented by severity of injury, and defined as follows:

- **Fatality**: a person who dies within thirty days from injuries received in a road traffic crash.
- Serious injury: a person identified in CrashLink (casualty or driver or rider) who is matched to a hospital admission record on the same day or on the day after a crash and did not die within 30 days of the crash, and is admitted with at least one injury diagnosis; or linked to an iCare (Lifetime Care) participant record.
- **Moderate injury**: a person identified in CrashLink (casualty or driver or rider) who is matched to an emergency department attendance record on the same day or on the day after a crash but was not killed or not subsequently admitted to hospital; or a previously defined Minor/Other or No Injury CrashLink record matched to a SIRA CTP record with a MAIS score of 2 (Moderate) or higher.
- Minor / Other injury: a person identified as an injury in CrashLink who is not matched to a hospital admission record or emergency department attendance record; or a previously defined No Injury CrashLink record matched to a SIRA CTP record with an MAIS score of 1 (Minor).
- **Injury Severity uncategorised**: a person identified as an injury in CrashLink prior to 2005 for which data linkage with health records is not available.
- **Casualty**: any person killed or injured because of a crash.
- Casualty crash: a crash that results in at least one person killed or injured.

<sup>&</sup>lt;sup>9</sup> More information about how crash data is processed in NSW is available online at <u>www.roadsafety.transport.nsw.gov.au</u>.

Crash data reported from 2005 onwards includes additional detail regarding injury severity, and are categorised as:

- Serious Injury,
- Moderate Injury,
- Minor / Other Injury.

Prior to 2005, crash data was not matched to hospital admissions or emergency department presentations, so all non-fatal injuries prior to 2005 were uncategorised with respect to the severity of injury.

#### 5.2.1.1 Updated serious injury definition

In previous years, NSW defined a serious injury to be an injury from a crash which resulted in a hospital admission.

Under the current definition, a serious injury is defined as:

• A person matched to a hospital admission that identifies an injury,

or

• A person that has a SIRA icare (Lifetime Care) claim.

This has decreased the number of serious injuries per year due to the removal of hospital admissions for reasons other than injury.

In addition, further investigation and linkage of hospital data has improved the identification of serious injuries, and refreshed some data, as outlined below.

#### 5.2.1.2 Inclusion of additional moderate injuries

The Centre for Road Safety has identified a number of people injured in crashes that did not report to police as having been injured at the time of the crash, but have subsequently made a claim for an injury. These records were identified within Compulsory Third Party (CTP) insurance claims.

Additional records of people injured in a crash were also identified within the NSW Government's emergency department presentation records.

As a result, a number of moderate injuries have been added into CrashLink for people that were previously recorded as not injured. This had the effect of increasing the numbers of moderate and minor injuries for years 2005 to 2013 (when compared to the totals reported in some previous years).

# 6 Data parameters

# 6.1 Five years of data

Typically, at least five years of data are required to make an assessment of a camera's performance.<sup>10</sup>

As some camera locations or lengths have been operational for less than five years, the data for these locations are insufficient to reliably assess performance. Preliminary observations have instead been provided for these locations.

# 6.2 Time periods analysed

Data for the period before the installation of the camera (the "before" period) has been compared against data after the camera's commencement date (the "after" period, when warning letters and then infringements are issued).

To assess the current performance of the speed camera, the most recent five calendar year period (i.e. 2013 - 2017) is selected as the "after" period.

#### 6.2.1 **Pre-installation periods**

For fixed, red-light and average speed camera programs, the five year "before" period ends three months prior to the "commencement date." This is to ensure that the "before" period does not capture the "pre-installation period" when behavioural changes may result from the presence of not-yet operational camera housing.

However, it should be noted that a significant portion of the red-light speed camera locations previously featured a wet-film red-light camera. (The wet-film red-light program preceded the red-light speed camera program). 82 of the 171 red-light speed camera locations previously featured a wet-film red-light camera.

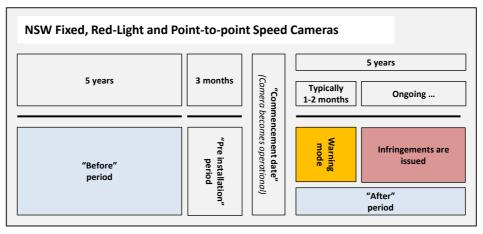
Wet-film red-light cameras were operational for different periods of time, requiring there to be camera housing (poles and camera boxes) at the roadside at these locations. As a result, "before" data for a significant number of red-light speed cameras may have been impacted by drivers' perceptions that there was camera enforcement in place at these locations. It can be assumed that this would have improved drivers' compliance at these locations, compared to other sites where there were no camera housings in place.

#### 6.2.2 Warning mode periods

Fixed and red-light speed cameras generally operate in warning mode for a onemonth period after the "commencement date". A one-month warning mode period also applied for mobile speed cameras when the program was introduced, but has not been applied since then.

NSW average speed camera lengths generally operate in warning mode for a twomonth period after the "commencement date".

<sup>&</sup>lt;sup>10</sup> Austroads (2009). *Guide to Road Safety Part 8: Treatment of Crash Locations*. Publication No. AGRS08/09.



#### Figure 1: Before, After and Warning Mode periods

# 6.3 Crashes selected for analysis

When reviewing fixed, red-light and average speed cameras, crash data were examined at individual speed camera locations.

When reviewing mobile speed cameras, crash data were examined for the entire state, due to the nature of mobile speed cameras and their purpose of creating a general deterrence effect across the NSW road network.

# 6.4 State-wide crash data

State-wide crash data is provided to compare the crash outcomes at fixed and redlight speed camera locations against the rates of change observed across NSW.

# 6.5 State-wide comparison traffic volume data

The Australian Bureau of Infrastructure, Transport and Regional Economics publishes the yearbook of Australian Infrastructure Statistics each year.<sup>11</sup>

NSW state-wide measures of vehicle kilometres travelled (VKT) as calculated for the yearbook are the basis of the state-wide vehicle volumes cited within this report.

# 6.6 State-wide speed survey data

Vehicle speeds were assessed state-wide via the CRS annual speed survey program.

In 2017, speed surveys for the CRS annual speed survey program were conducted at 175 NSW locations, including a range of roads with a range of speed limits, to gather current information about the speeding behaviour of both light vehicle drivers and heavy vehicle drivers.

The 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.

<sup>&</sup>lt;sup>11</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in *Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE* 

Speed surveys are not undertaken at specific speed camera enforcement locations. Because of this, this report instead uses infringement data at camera locations as a proxy for speed data.

# 6.7 Infringement data

Infringement data analysed in this report include penalty notices from July 2002 onwards. No earlier infringement data are available.

All fines from speed cameras are directed to the Community Road Safety Fund to pay for road safety programs across the state. Infringement data for red-light speed cameras, fixed speed cameras and mobile speed cameras are publicly available through the Revenue NSW website (<u>http://www.revenue.nsw.gov.au/info/statistics</u>).

# 7 Review methodology

# 7.1 Fixed speed camera locations

#### 7.1.1 Fixed speed cameras analysed

While at the end of 2017 there were 110 fixed speed camera locations across NSW, road safety benefits were only assessed in detail for 98 fixed speed camera locations within this report.

12 fixed speed camera locations were excluded, as follows:

- Seven locations are currently operating in warning mode.<sup>12</sup> This report includes information on crashes, warning letters and infringements at these locations within Appendix A (sections A4 & A5).
- Five locations are located in tunnels (and were sometimes referred to in the review as "high risk" locations). These cameras were generally installed when the tunnel was constructed, therefore no pre-installation data are available. Post installation crash and infringement data for these locations is presented at section A6.

The 98 fixed speed camera locations analysed in this report have been operational for the following periods:

NSW fixed speed cameras	
Operational for 5 years or more:	94 locations
Operational for less than 5 years:	4 locations
Total:	98 locations

#### Table 4: Operational duration of NSW fixed speed cameras

#### 7.1.2 Road length analysed for each camera

Crash data were typically examined within 500 metres either side of fixed speed cameras.

For fixed speed cameras located within a school zone, crash data were examined from patch-to-patch (i.e. the length of road designated as a school zone, as identified by the start and end 40km/h patches marked on the road).

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.

One fixed speed camera location - the M1 Princes Motorway (formerly the F6, Southern Freeway) Gwynneville - had two cameras operating approximately 1,000 metres apart and infringing in different directions. Within this report, the two cameras were listed as separate locations for the directions they enforce.

<sup>&</sup>lt;sup>12</sup> For speed cameras operating in warning mode, warning letters are issued to motorists detected speeding, unless they exceed the speed limit by more than 30km/h, in which case a court attendance notice is issued and drivers face significant penalties.

A three-strikes system also applies, where if a registered operator of a vehicle is issued two warning letters from the one camera location, an infringement will be issued for a third offence and any further offences at that location.

#### 7.1.3 Recommendations

This report considered "before" and "after" crash analysis, and whether the fixed speed camera location has previously been comprehensively reviewed, to develop recommendations as follows:

Recommendation	Trigger	Outcome	
	Major roadworks have been undertaken at the location <u>or</u>	TfNSW will undertake a	
Review	There has been a statistically significant increase <sup>13</sup> in the number of casualty crashes, and the camera has not been reviewed in the last 5 years.	comprehensive review of the camera location.	
Retain and monitor	There has been an increase in the number of casualty crashes, but it is not a statistically significant result.	The camera will continue to be used at the location. The location will also be flagged for ongoing monitoring in future reviews.	
Retain	There has been no increase in casualty crashes <u>or</u>		
	There has been an increase in the number of casualty crashes, but it is not a statistically significant result, and the location has been reviewed within the last 5 years <u>or</u>	The camera will continue to be used at the location.	
	There has been a statistically significant increase <sup>14</sup> in the number of casualty crashes, but the location has been reviewed within the last 5 years.		
Insufficient data	There is less than 5 years of 'after' data available.	The camera will be assessed once 5 years of "after" data is available.	
Ineligible	There is a review currently underway at the location, <u>or</u>	TfNSW will complete the comprehensive review.	
	The camera has been removed.	Nil.	

Table 5: Developing recommendations for	or fixed speed cameras
---	------------------------

 $<sup>^{13}</sup>$  A p-value of 0.05 has been applied to determine statistical significance  $^{14}$  A p-value of 0.05 has been applied to determine statistical significance

## 7.1.4 Comprehensive reviews

Where required, comprehensive reviews will be undertaken as per the process in previous years. Depending on the findings of each comprehensive review, the fixed speed camera may be removed, and road safety treatments implemented to address any identified road safety risks. These treatments may involve improved signage, road works, traffic facilities, speed zoning reviews and targeted communications.

The Centre for Road Safety is currently leading a program of 13 comprehensive speed camera reviews, at the following locations:

- Berry Princes Highway, between Kangaroo Valley Road and Victoria Street
- Foxground Princes Highway, between Foxground Road and Broughton Creek
- **Hungry Head** Giinagay Way (formerly the Pacific Highway), between Boundary Road and Ballards Road
- **Terrigal** Terrigal Drive, between Brunswick Road and Bellbird Avenue (School Zone)
- Valla Beach Giinagay Way (formerly the Pacific Highway), between Valla Beach Road and Oyster Creek
- Bomaderry Bolong Road, between Beinda Street and Coomea Street
- Brogo Princes Highway, between Pioneer Close and Brogo River
- Burringbar Tweed Valley Way, between Blakeneys Road and Cooradilla Road
- North Narrabeen Pittwater Road, between Garden Street and Namona Street (School Zone)
- Queanbeyan Lanyon Drive, between Tompsitt Drive and Hoover Road
- **Rydalmere** Victoria Road, between Park Road and John Road (School Zone)
- Hartley Great Western Highway, between Mid Hartley Road and Blackmans Creek
- Moore Park ANZAC Parade at Lang Road (RLSC location).

#### 7.1.5 Additional technical notes

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

- 1. The commencement date listed for each location refers to the date that the fixed speed camera commenced infringement (or warning mode) at that location. For locations where more than one fixed speed camera is in operation, the date listed refers to the date that the *first camera* started infringing at that location, unless otherwise specified.
- For each location, the "before" and "after" periods vary depending on the date the camera commenced infringement, and exclude 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" (when infringements commence). The "after" period was defined as the most recent five-year calendar period (2013 2017).

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

- 3. In instances when there was less than five years of "before" data, the "before" period was adjusted so that it represented an equivalent five-year period.
- 4. The percentage reduction for crashes and casualties are based on the annual averages in crashes and casualties at each location in the "before" period and the "after" period. This allows an approximate comparison to be made between the five-year "before" period and the most recent five calendar year "after" period (2013 2017).
- 5. The estimated casualty cost for the "before" period and the most recent five calendar year "after" period was 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.

The casualty costs used were based on the costs for the weighted average of urban and non-urban fatal and injury reductions, as follows:

- \* \$7,598,848 per fatality,
- \* \$485,992 per serious injury,
- \* \$75,790 per moderate or minor/other injury, and
- \* \$211,679 per uncategorised injury.
- 6. For each fixed speed camera location, a test of significance of the observed change in casualty crashes was conducted using the conditional method.<sup>15</sup> This approach compared the number of casualty crashes in the "after" period with the conditional distribution of the casualty crashes in the "after" period given the total casualty crashes in both the "before" and "after" periods.
- 7. Data for the crash analysis have not been ranked and are presented alphabetically according to the location description of the camera location.

<sup>&</sup>lt;sup>15</sup> Przyborowski, J., Wilenski, H., 1940. Homogeneity of results in testing samples from Poisson series. *Biometrika* 31, 313–323.

# 7.2 Red-light speed camera locations

#### 7.2.1 Red-light speed cameras analysed

At the end of 2017, there were 191 red-light speed cameras in total, operating at 171 intersections around Sydney, Newcastle and Wollongong. 19 intersections featured two or more cameras.

All red-light speed camera intersections were analysed in this report, and they have been operational for the following periods:

NSW red-light speed cameras	
Operational for 5 years or more:	91
Operational for less than 5 years:	80
Total: 171	

#### 7.2.2 Road length analysed for each camera

Crash data were examined within 10 metres of each intersection with a red-light speed camera.

#### 7.2.3 Analysis of specific crash types

In addition to total casualties at each location, pedestrian casualties were specifically examined given the greater exposure of pedestrians at signalised intersections and the higher likelihood of severe casualty outcomes for this group due to their lack of protection in a crash.

Data were also examined for adjacent, right-through and rear-end casualty crashes, as these are the crash types that typically occur at intersections. Adjacent and right-through crashes are often more severe as drivers and passengers are not as protected from side impact crashes, with low-speed side impact crashes potentially resulting in severe injuries. The frequency and severity of these crash types are expected to reduce at intersections enforced by red-light speed cameras.

Red-light speed cameras are intended to counteract the potential increase in rear-end crashes by also enforcing speed, as it is easier for drivers to brake in time to avoid a rear-end collision when they are driving at lower speeds.

#### 7.2.4 Recommendations

This is the third year that sufficient data has been available to assess individual redlight speed camera locations.

This review considered "before" and "after" crash analysis to develop these recommendations. No red-light speed camera locations have previously been reviewed, so this was not a factor in developing recommendations.

Table 6 (overleaf) outlines the process for developing recommendations for red-light speed camera locations.

Recommendation	Trigger	Outcome
Review	There has been a statistically significant increase <sup>16</sup> in the number of fatal and serious injury crashes.	TfNSW will undertake a comprehensive review of the camera location.
Retain and monitor	There has been an increase in the number of fatal and serious injury crashes but it is not a statistically significant result.	The camera will continue to be used at the location. The location will also be flagged for ongoing monitoring in future reviews.
Retain	There has been no increase in fatal and serious injury crashes.	The camera will continue to be used at the location.
Insufficient data	There is less than 5 years of 'after' data available.	The camera will be assessed once 5 years of "after" data is available.
Ineligible	There is a review currently underway at the location	TfNSW will complete the comprehensive review.

#### Table 6: Developing recommendations for red-light speed cameras

#### 7.2.5 Additional technical notes

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

- 1. To identify crashes at each intersection, CRS initially examined crashes geo-coded to be within 200 metres of the traffic signals. Crashes were then assigned to the enforced intersection if they occurred within, or up to 10 metres from, the intersection.
- 2. These crashes were attributed to the relevant intersection by taking into account the geo-coding as well as the street name, identifying feature(s), and intersection type.
- 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 was listed for each camera. For the analysis of intersections with two cameras, the "after" period was based on the earlier of the two commencement dates.
- 5. Data for each crash type (adjacent, right- and rear-end) was reported based on Road User Movement (RUM) codes. RUM codes describe the first impact that occurred during the crash. Adjacent crashes are indicated by RUM code 10; Right-crashes are coded 21 and rear-end crashes are coded 30. More information on RUM codes can be found in the Definition and notes to support road crash data at <u>http://roadsafety.transport.nsw.gov.au/downloads/definitions-notes.pdf</u>
- 6. The improvement rates for crashes and casualties were based on the annual averages in crashes and casualties at each location before and after the cameras were installed. This allowed an approximate comparison to be made between the five year "before" period and the available data for the "after" period until December 2017 (which is less than five years for a number of red-light speed camera locations).

<sup>&</sup>lt;sup>16</sup> A p-value of 0.05 has been applied to determine statistical significance

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

- 7. The estimated casualty cost for the "before" period and the most recent five calendar year "after" period was 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. The casualty costs used were based on the costs for the urban fatal and injury reductions, as follows:
  - \* \$7,278,105 per fatality,
  - \* \$436,643 per serious injury,
  - \* \$67,045 per moderate or minor/other injury.
- 8. Crash data were not ranked and were presented alphabetically by suburb of the camera location.

# 7.3 Mobile speed camera locations

#### 7.3.1 Road lengths analysed

The entire NSW road network was analysed to review the general deterrence effect of the mobile speed camera program.

#### 7.3.2 Program structure and periods of enforcement

In December 2015, the NSW Government announced new higher-visibility mobile speed camera vehicle markings, and additional enhancements to warning signage. The mobile speed camera program delivered 7,000 enforcement hours per month at 1,024 locations.

# 7.4 Average speed enforcement lengths

#### 7.4.1 Average speed enforcement lengths analysed

The average speed camera program only targets heavy vehicles. The program includes 25 enforcement lengths ranging from 7 – 94km, and includes most major NSW highways. Enforcement lengths were installed over the following years:

Year	Lengths installed							
2010	2							
2011	14	(5 years of crash data is available for these lengths)						
2012	4							
2013	1							
2014	3							
2015	1	(Less than 5 years of crash data is available for the lengths)						
2016	0							
2017	0							
Total:	25							

As for previous years, heavy vehicle crash and infringement data are presented to facilitate analysis of the current impact of individual average speed enforcement lengths.

# 8 Results and discussion

This review has found that speed cameras are continuing to improve road safety in NSW. Results from the fixed, red-light, mobile and average speed camera programs 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.

NSW's four speed camera programs are individually considered below.

# 8.1 Fixed speed cameras

Program size as at 31 December 2017: 139 cameras at 110 locations<sup>17</sup>

Median camera installation date: 30 April 2003

The analysis of individual fixed speed camera locations is available at Appendix A.

Overall, there has been a reduction in fatal crashes and casualty crashes at fixed speed camera locations since the cameras were installed, compared with the five year period prior to installation.

Specifically, at fixed speed camera locations there has been a:

- 32 per cent reduction in casualty crashes
- 80 per cent reduction in fatalities
- 37 per cent reduction in injuries.

The reduction in fatalities and injuries represents a saving of \$549 million to the community.

The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period:

- 13 per cent reduction in casualty crashes
- 35 per cent reduction in fatalities
- 15 per cent reduction in injuries.

It should also be noted, alongside the crash data discussed above, that there has also been a notable increase in traffic volumes. Over the periods that fixed digital speed cameras have been reviewed within this report, there has been a 14 per cent increase in traffic volume across NSW.<sup>18</sup>

#### 8.1.1 Individual fixed speed camera locations

Analysis within Appendix A has identified the following findings for individual camera locations:

<sup>&</sup>lt;sup>17</sup> Of the 110 fixed speed camera locations, seven locations operate in warning mode and five locations are high risk sites located in tunnels. Recommendations are not provided for these warning mode and high risk locations.

<sup>&</sup>lt;sup>18</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in *Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE* 

(	Camera Status:	Number of Cameras
Insufficient data	A more comprehensive analysis over a longer time period is required before drawing any conclusions.	4
Ineligible	The camera has been removed or a review is currently underway	13
E veere of "ofter" date	Retain	79
5 years of "after" data is available for the	Retain and monitor	2
camera.	Review	0
	98	

## Table 7: Fixed speed camera locations status

The following table identifies fixed speed cameras with notable reductions in casualty crashes:

Leastlan	Casualty	crashes	Change in	% change	
Location	Before	After	cas crashes		
New England Highway, Tenterfield	6	0	↓ 6	↓ 100	
<b>Pacific Highway</b> , Ewingsdale	14	1	↓ 13	↓ 92.9%	
<b>Kingsway</b> , Miranda (school zone)	14	2	↓ 12	↓ 85.7%	
Pacific Highway, Woodburn	5	1	↓ 4	↓ 80%	
Castle Hill Road, West Pennant Hills	17	4	↓ 13	↓ 76.5%	

Table 8: Top performing fixed speed cameras

# 8.1.2 Fixed speed cameras identified to review / monitor

CRS has identified two camera locations that recorded an increase in casualty crashes. These increases were not statistically significant and the locations will be monitored in future years.

This is the third year in a row that Bonnyrigg (Elizabeth Drive) has been identified for additional monitoring and the second year in a row that Bonnyrigg (Cabramatta Road) has been identified for additional monitoring.

	,												
	Pre-Installation							Pos	st-Ins	tallat	ion		
	Crashes at mid-block	Crashes on curves	Wet surface crashes	Head-on crashes	Run-off-road crashes	Single vehicle crashes		Crashes at mid-block	Crashes on curves	Wet surface crashes	Head-on crashes	Run-off-road crashes	Single vehicle crashes
Bonnyrigg (Elizabeth Drive)	16	2	11	1	8	8		3	2	2	0	1	2
Bonnyrigg (Cabramatta Road)	10	3	6	2	4	4		7	1	5	1	4	3
Total	26	5	17	3	12	12		10	3	7	1	5	5
Percentage change:								↓ 62%	↓ 40%	↓ 59%	↓ 67%	↓ 58%	↓ 58%

Table 9: Key crash data for identified fixed speed cameras

## 8.1.2.1 Bonnyrigg (Elizabeth Drive)

Casualty crashes at the Bonnyrigg (Elizabeth Drive) fixed digital speed camera location rose from 12 in the four years prior to installation of the camera, to 21 in the most recent five years (to the end of 2017). This is not a statistically significant outcome.

However, despite the rise in the overall number of casualty crashes, the crash types likely to be improved by the presence of a fixed speed camera have markedly improved or remained constant over these periods. Speeding has also fallen by approximately 75 per cent at this location.

These outcomes represent a substantial road safety gain – particularly considering that vehicle volumes have risen by an estimated 17 per cent at this location since the camera was installed in the year 2000.

#### 8.1.2.2 Bonnyrigg (Cabramatta Road)

Casualty crashes at the Bonnyrigg (Cabramatta Road) fixed digital speed camera location rose from 25 in the five years prior to installation of the camera, to 28 in the most recent five years (to the end of 2017). This is not a statistically significant outcome.

However, despite the rise in the overall number of casualty crashes, almost all of the crash types most likely to be improved by the presence of a fixed speed camera have either improved or remained constant over these periods. Speeding has also fallen by approximately 83 per cent at this location.

These outcomes represent a substantial road safety gain – particularly considering that vehicle volumes have risen by an estimated 16 per cent at this location since the camera was installed in 2003.

# 8.2 Red-light speed cameras

Program size as at 31 December 2017: 191 cameras at 171 intersections Median camera installation date: 27 June 2011 The analysis of red-light speed camera locations is available at Appendix B.

Overall, there has been a reduction in fatal crashes and serious injury crashes at redlight speed camera locations since the cameras were installed, compared with the five year period prior to installation.

Specifically, at red-light speed camera locations there has been a:

- 38 per cent reduction in fatal and serious injury crashes
- 74 per cent reduction in fatalities
- 40 per cent reduction in serious injuries
- 48 per cent reduction in pedestrian casualties.

The reduction in fatalities and serious injuries represents a saving of \$174 million to the community.

The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period:

- No change in fatal and serious injury crashes
- 15 per cent reduction in fatalities
- No change in serious injuries
- 27 per cent reduction in pedestrian casualties.

It should also be noted, alongside the crash data discussed above, that there has also been a notable increase in traffic volumes. Over the period that red-light speed cameras have been reviewed within this report, there has been a 14 per cent increase in traffic volume across NSW.<sup>19</sup>

#### 8.2.1 Individual red-light speed camera locations

Analysis within Appendix B identifies the following findings for individual camera locations:

С	amera Status:	Number of Fixed Speed Cameras
Insufficient data	A more comprehensive analysis over a longer time period is required before drawing any further conclusions.	80
5 years of "after" data is available for the	Retain	72
	Retain and monitor	18
camera.	Ineligible	1
	171	

Table 10: Red-light speed ca	amera location status
------------------------------	-----------------------

<sup>&</sup>lt;sup>19</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

The following table identifies red-light speed cameras with notable reductions in fatal / serious injury crashes:

Location	Fatal / S Injury c		Change in FSI crashes	% change	
	Before	After	Forciasiles		
<b>Bondi Junction</b> - Old South Head Road at Bondi Road	8	0	↓8	↓100%	
<b>Strathfield</b> - Arthur Street at Centenary Drive	15	1	↓14	↓93.3%	
Paddington / Surry Hills - South Dowling Street at Fitzroy Street / Moore Park Road	28	4	↓24	↓85.7%	
<b>Rozelle</b> - Wellington Street at Victoria Road	6	1	↓7	↓83.3%	
<b>Pennant Hills</b> - Pennant Hills Road at Beecroft Road (school zone)	5	1	↓8	↓80%	

Table 11: Top performing red-light speed cameras

#### 8.2.2 Red-light speed cameras identified to retain / monitor

18 locations also recorded an increase in fatal and serious injury crashes – but that was not a statistically significant result. These locations will be monitored in future years:

- Bexley: Forest Road at Harrow Road
- Canley Vale: Sackville Street at Canley Vale Road
- **Castle Hill:** Showground Road at Victoria Avenue
- Five Dock: Fairlight Street at Ramsay Road
- Haberfield: Parramatta Road at Sloane
   Street
- Kensington: Anzac Parade at Todman Avenue
- **Kirrawee:** Acacia Road at President Avenue
- Kogarah Bay: Park Road at Princes Highway
- Marrickville: Sydenham Road at Victoria Road

- Mayfield West: Pacific Highway at Maud Street
- Milperra: Newbridge Road at Henry
   Lawson Drive
- Moore Park: Anzac Parade at Lang Road
- North Ryde: Wicks Road at Epping Road
- **Petersham:** Gordon Street at New Canterbury Road
- Petersham: Parramatta Road at West Street
- **Redfern:** Chalmers Street and Cleveland Street
- Ryde: Victoria Road and Devlin Street
- South Wentworthville: Cumberland Highway at Old Prospect Road

This is the third year in a row that four of the above locations have been identified for monitoring. Additional analysis has been completed for these locations as outlined below.

		Pre-Ins	stallation	Ì			Post-Ins	tallation	
	Pedestrian casualties	Adjacent casualty crashes	Right through casualty crashes	Rear end casualty crashes		Pedestrian casualties	Adjacent casualty crashes	Right through casualty crashes	Rear end casualty crashes
Milperra	1	1	3	8		0	2	2	15
North Ryde	0	1	0	9		0	1	1	11
Petersham (Gordon St)	1	2	3	2		3	2	1	3
Petersham (Parramatta Rd)	1	3	6	6		0	2	3	2
-	3	7	12	25		3	7	7	31
			Percentag	e change:	-	Nil.	Nil.	↓ 42%	↑ <b>24%</b>

Table 12: Key crash data for identified red-light speed cameras

#### 8.2.2.1 Milperra (Newbridge Road)

Fatal and serious injury crashes have increased from 1 such crash in the five years prior to the installation of the camera, to 6 such crashes in the most recent five calendar years to the end of 2017. This is not a statistically significant outcome.

Two of crash types likely to be improved by the presence of a red-light speed camera (pedestrian casualties and right through crashes) have improved at this location, while two others (adjacent and rear-end casualty crashes) have worsened. Red-light running and speeding have also fallen by approximately 85 per cent and 99 per cent at this location.

Overall, these outcomes represent a substantial road safety gain, particularly considering that traffic volumes have grown by an estimated 9 per cent at this location since the camera was installed in 2010.

#### 8.2.2.2 North Ryde (Wicks Road)

Fatal and serious injury crashes have increased from 1 such crash in the five years prior to the installation of the camera, to 6 such crashes in the most recent five calendar years to the end of 2017. This is not a statistically significant outcome.

There have been no pedestrian casualty crashes since in the last 5 years and adjacent casualty crashes have remained flat. Right through and rear-end casualty crashes have worsened. Red-light running and speeding have fallen by approximately 60 per cent and approximately 50 per cent respectively at this location.

Overall, these outcomes represent a road safety gain, particularly considering that traffic volumes have grown by an estimated 14 per cent at this location since the camera was installed in 2010.

#### 8.2.2.3 Petersham (Gordon Street)

There has been an increase in fatal and serious injury crashes at this location, from zero such crashes in the five years prior to the installation of the camera to 2 such crashes in the most recent five calendar years to the end of 2017. This is not a statistically significant outcome.

Right-through casualty crashes have improved at this location, while two others (pedestrian casualties and rear end casualty crashes) have worsened. The number of adjacent casualty crashes has remained constant. Red-light running has also fallen by approximately 67 per cent at this location, but speeding cannot be enforced at this location for technical reasons.

Overall, these outcomes represent a road safety gain, particularly considering that traffic volumes have grown by an estimated 9 per cent at this location since the camera was installed in 2010.

#### 8.2.2.4 Petersham (Parramatta Road)

There has only been a small increase in fatal and serious injury crashes at this location, from 1 such crash in the five years prior to the installation of the camera to 2 such crashes in the most recent five calendar years to the end of 2017. This is not a statistically significant outcome.

However, despite the rise in the overall number of casualty crashes, the crash types likely to be improved by the presence of a red-light speed camera have improved. Red-light running and speeding have also fallen by approximately 60 per cent and 93 per cent at this location.

These outcomes represent a substantial road safety gain – although it is estimated that traffic volumes have fallen by an estimated 1 per cent at this location since the camera was installed in 2010.

# 8.3 Mobile speed cameras

The analysis of the mobile speed camera program is available at **Appendix C**.

There were 389 fatalities on NSW roads in 2017. While this was an increase on the 2016 figure (380), it remains significantly below the 2009 figure of 453 (prior to the reintroduction of mobile speed cameras in 2010).

The NSW fatality rate per 100,000 population was 4.9 in 2017. This was the same as the 2016 figure and remains significantly below the 2009 figure of 6.42.

Annual speed survey data indicate that the mobile speed camera program continues to deliver road safety benefits, compared to results prior to the reintroduction of the mobile speed camera program.

#### 8.3.1 Light vehicles

NSW speed survey data for the last nine years shows a reduced proportion of light vehicles exceeding the speed limit, across most speed zones.

Comparing the 2017 speed survey results against those from 2016, there is also a decreased proportion of light vehicles exceeding the speed limit, for all speed zones except for in the 110km/h zone. The percentage of vehicles exceeding the speed limit by 10km/h or more has decreased in all speed zones except in the 90km/h, 100km/h and 110km/h.

#### 8.3.2 Heavy vehicles

The speed survey results also indicate that there has been a decrease in the proportion of heavy vehicles exceeding the speed limit over the last nine years; but while this is true for most speed zones, it is not the case for exceeding the speed limit by 10km/h or more in 100km/h and 110km/h zones.

Comparing the 2017 results against the 2016 results, there is an increased proportion of heavy vehicles exceeding the speed limit for approximately 15 per cent of the speed zones measured.

#### 8.3.3 Infringements

In 2017 there were a total of 21,347 infringements issued from mobile speed camera enforcement resulting in \$4.6 million of fines. The cost of conducting the mobile speed camera program in 2017 was \$22.8 million.

The total number of mobile speed camera infringements issued in 2017 decreased by 27 per cent compared to 2016.

#### 8.3.4 Vehicle compliance rate

In 2017 the compliance rate was 99.9%. This high rate of compliance has remained consistent since 2010 when the program was reintroduced.

Overall, the trend in road fatalities, infringements and annual speed survey data demonstrates that the mobile speed camera program has delivered road safety benefits over the years since the program was re-introduced in 2010.

# 8.4 Average speed cameras

The analysis of the average speed camera program is available at **Appendix D.** 

#### 8.4.1 Crash Data

Overall, there has been a reduction in fatal crashes and casualty crashes involving a heavy vehicle on NSW average speed enforcement lengths since those lengths were installed, compared with the five year period prior to installation.

Across heavy vehicle average speed camera lengths, there has been a:

- 22 per cent reduction in casualty crashes involving a heavy vehicle
- 44 per cent reduction in fatalities from crashes involving heavy vehicles
- 4 per cent reduction in serious injuries from crashes involving heavy vehicles.

The reduction in fatalities and serious injuries represents a saving of \$138 million to the community.

The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period for crashes involving heavy vehicles:

- 10 per cent reduction in casualty crashes involving a heavy vehicle
- 19 per cent reduction in fatalities from crashes involving heavy vehicles
- 10 per cent increase in serious injuries from crashes involving heavy vehicles.

It should also be noted, alongside the crash data discussed above, that there has also been a notable increase in heavy vehicle traffic volumes. Over the period that heavy vehicle average speed enforcement lengths have been reviewed within this report, there has been an 11 per cent increase in heavy vehicle volume across NSW.<sup>20</sup>

#### 8.4.2 Infringement Data

A total of 2,130 speeding infringements, resulting in total fines of \$1,033,608, were issued at NSW average speed camera lengths in 2017.

Overall, there has been a reduction in fatal crashes and casualty crashes involving a heavy vehicle on NSW average speed enforcement lengths since those lengths were installed, compared with the five year period prior to installation.

This represents a particularly notable road safety improvement when compared to NSW heavy vehicle volumes, which have risen 11 per cent over the same period.<sup>21</sup>

NSW is currently expanding the heavy vehicle average speed camera program to metropolitan areas, and CRS will continue to monitor the program.

<sup>&</sup>lt;sup>20</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in *Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE* 

<sup>&</sup>lt;sup>21</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

# A. NSW fixed speed cameras

# A.1 The NSW fixed speed camera program

As at 31 December 2017, there were 139 fixed speed cameras in place at 110 locations across NSW. The median installation date for NSW fixed speed cameras was 30 April 2003.

Fixed speed cameras are located at specified road lengths where there is a demonstrated crash history or a high crash risk, to detect and deter speeding at specific locations.

In managing the program, Roads and Maritime Services (RMS) may increase the warning letter period and/or use Variable Message Signs to increase driver awareness of camera locations, where the trend in warning letters or number of infringements issued deems this appropriate. RMS also conducts ongoing site maintenance to ensure that signage is effectively placed and not obscured by roadside objects, such as trees.

A table outlining the detailed analysis of 98 NSW fixed speed camera locations is provided overleaf, and data about those individual camera locations are provided on pages A7 – A104.

Detailed analysis is not provided for 12 fixed speed camera locations, for the following reasons:

- Seven locations are currently operating in warning mode.<sup>1</sup> This report includes information on crashes, warning letters and infringements at these locations within sections A4 & A5.
- Five locations are located in tunnels (and were sometimes referred to in the review as "high risk" locations). These cameras were generally installed when the tunnel was constructed, therefore no pre-installation data are available. Post installation crash and infringement data for these locations is presented at section A6.

<sup>&</sup>lt;sup>1</sup> For speed cameras operating in warning mode, warning letters are issued to motorists detected speeding, unless they exceed the speed limit by more than 30km/h, in which case a court attendance notice is issued and drivers face significant penalties.

A three-strikes system also applies, where if a registered operator of a vehicle is issued two warning letters from the one camera location, an infringement will be issued for a third offence and any further offences at that location.

# A.2 NSW fixed speed camera locations

	Location	Cameras	Road	Status	Page
1	Ashfield <mark>(sz)</mark>	1	Hume Highway, between Murrell Street and Queen Street	Retain	A7
2	Auburn	1	Parramatta Road, between Harbord Street and Duck Street	Retain	A8
3	Bankstown <mark>(sz)</mark>	2	Hume Highway, between Rookwood Road and Stacey Street	Retain	A9
4	Bar Point	1	M1 Pacific Motorway, between Jolls Bridge and Mt White Exit Ramp	Retain	A10
5	Ben Lomond	1	New England Highway, between Ross Road and Ben Lomond Road	Retain	A11
6	Berkshire Park	1	Richmond Road, between Llandilo Road and Sanctuary Drive	Retain	A12
7	Berry	1	Princes Highway, between Kangaroo Valley Road and Victoria Street	Ineligible	A13
8	Beverly Hills <mark>(sz)</mark>	2	King Georges Road, between Stoney Creek Road and Edgbaston Road	Retain	A14
9	Bexley North	1	Bexley Road, between Kingsland Road North and Miller Avenue	Retain	A15
10	Blandford	1	New England Highway, between Hayles Street and Mills Street	Retain	A16
11	Bomaderry	1	Bolong Road, between Beinda Street and Coomea Street	Ineligible	A17
12	Bonnyrigg <mark>(sz)</mark>	1	Cabramatta Road, between Katinka Street and Tarlington Parade	Retain and monitor	A18
13	Bonnyrigg	1	Elizabeth Drive, between Brown Road and Humphries Road	Retain and monitor	A19
14	Brogo	1	Princes Highway, between Pioneer Close and Brogo River	Ineligible	A20
15	Bulli	1	Princes Highway, between Grevillea Park Road and Black Diamond Place	Retain	A21
16	Burringbar	1	Tweed Valley Way, between Blakeneys Road and Cooradilla Road	Ineligible	A22
17	Burwood Heights	1	Hume Highway, between Kelso Street and Appian Way	Retain	A23
18	Camellia	1	James Ruse Drive, between Victoria Road and Grand Avenue North	Retain	A24
19	Canterbury	1	Canterbury Road, between Gould Street and Jeffrey Street	Retain	A25
20	Caringbah	1	Captain Cook Drive, between Cawarra Road and Gannons Road	Retain	A26
21	Carlingford	1	Pennant Hills Road, between Evans Road and Coleman Avenue	Retain	A27
22	Castle Hill (sz)	1	Old Northern Road, between Telfer Road and Brisbane Road	Retain	A28

	Location	Cameras	Road	Status	Page
23	Charmhaven	1	Pacific Highway, between Wallarah Creek and Lowana Avenue	Retain	A29
24	Concord West	1	Concord Road, between Nirranda Street and Mepunga Street	Retain	A30
25	Condell Park (sz)	1	Edgar Street, between Augusta Street and Upper Railway Parade	Retain	A31
26	Corrimal	2	Northern Distributor (Memorial Drive), between Towradgi Road and Railway Street	Retain	A32
27	East Gardens/ Maroubra (sz)	2	Bunnerong Road, between Fitzgerald Avenue and Smith Street	Retain	A33
28	Edgecliff	1	New South Head Road, between Waratah Street and New Beach Road	Retain	A34
29	Engadine	1	Heathcote Road, between Forum Drive and New Illawarra Road	Insufficient data	A35
30	Ewingsdale	1	Pacific Highway, between St Helena Road and Ewingsdale Road.	Insufficient data	A36
31	Fairfield East	1	Fairfield Street, between Scott Street and Mandarin Street	Retain	A37
32	Foxground	1	Princes Highway, between Foxground Road and Broughton Creek	Retain	A38
33	Gateshead (sz)	1	Pacific Highway, between Sydney Street and Macquarie Avenue	Ineligible	A39
34	Greystanes	1	Greystanes Road, between Merrylands Road and Old Prospect Road	Retain	A40
35	Guildford <mark>(sz)</mark>	2	Woodville Road, between Kenelda Avenue and Osgood Street	Retain	A41
36	Gwynneville	1	M1 Princes Motorway, between Northern Distributor Overpass and Gipps Road Overpass (northbound)	Retain	A42
37	Gwynneville	1	M1 Princes Motorway, University Avenue Overpass and Mount Ousley Road (southbound)	Retain	A43
38	Hartley	1	Great Western Highway, between Mid Hartley Road and Blackmans Creek Road	Retain	A44
39	Hungry Head	1	Pacific Highway, between Boundary Road and Ballards Road	Ineligible	A45
40	Hurstville <mark>(sz)</mark>	1	Forest Road, between Lily Street and Cronulla Street	Ineligible	A46
41	Kingswood (sz)	2	Parker Street, between Copeland Street and Gascoigne Street	Retain	A47
42	Kogarah <mark>(sz)</mark>	2	Princes Highway, between Gray Street and President Avenue	Retain	A48
43	Korora	1	Pacific Highway, between Bruxner Park Road and Korora Basin Road	Retain	A49
44	Kurrajong	1	Bells Line of Road, between Queen Street and Bellbird Avenue	Retain	A50
45	Lane Cove	1	Centennial Avenue, between Gentle Street and Figtree Street	Retain	A51

	Location	Cameras	Road	Status	Page
46	Lansvale	1	Hume Highway, between Henry Lawson Drive and Knight Street	Retain	A52
47	Lindfield (sz)	2	Pacific Highway, between Eton Road and Gladstone Parade	Retain	A53
48	Liverpool (sz)	1	Bigge Street, between Elizabeth Drive and Campbell Street	Retain	A54
49	Lochinvar <mark>(sz)</mark>	1	New England Highway, between Robert Road and Station Lane	Retain	A55
50	Maroubra <mark>(sz)</mark>	2	Malabar Road, between Mons Avenue and Duncan Street	Retain	A56
51	Mayfield West	1	Pacific Highway, between Werribee Street and Tourle Street	Retain	A57
52	Merrylands (sz)	1	Merrylands Road, between Chetwynd Road and Davies Street	Retain	A58
53	Miranda <mark>(sz)</mark>	2	Kingsway, between Sylva Avenue and University Road	Retain	A59
54	Moore Park (sz)	2	Cleveland Street, between Anzac Parade and South Dowling Street	Retain	A60
55	Mosman (sz)	1	Macpherson Street, between Ourimbah Road and Montague Road	Retain	A61
56	Mount Victoria	1	Great Western Highway, between Mitchells Lookout Road and Ambermere Drive	Retain	A62
57	Narrabeen (sz)	2	Pittwater Road, between Ocean Street and Devitt Street	Insufficient data	A63
58	Narraweena	1	Warringah Road, near the intersection with May Road	Retain	A64
59	New Italy	2	Pacific Highway, between New Italy Road and Turners Road	Insufficient data	A65
60	Nords Wharf	1	Pacific Highway, between Nords Wharf Road and Flowers Drive	Retain	A66
61	North Curl Curl (sz)	1	Harbord Road, between Abbott Road and Brighton Street	Retain	A67
62	North Macksville	1	Pacific Highway, between Bellview Drive and Ferry Street	Insufficient data	A68
63	North Macksville	1	Pacific Highway, between Florence Wilmont Drive and Watt Creek	Retain	A69
64	North Narrabeen (sz)	2	Pittwater Road, between Garden Street and Namona Street	Retain	A70
65	North Parramatta	1	Pennant Hills Road, between Castle Street and Bellevue Street	Ineligible	A71
66	North Parramatta / Oatlands(sz)	2	Pennant Hills Road, between Masons Drive and Suttor Avenue	Retain	A72
67	North Wollongong	1	Princes Highway, between Ajax Avenue and Exeter Avenue	Retain	A73
68	Old Guildford (sz)	2	Woodville Road, between Orchardleigh Street and Middleton Road	Retain	A74

	Location	Cameras	Road	Status	Page
69	Ourimbah	1	M1 Pacific Motorway, between Dogtrap Road Overpass and Ourimbah Creek Road	Retain	A75
70	Ourimbah <mark>(sz)</mark>	2	Pacific Highway, between Yates Road and Dog Trap Road	Retain	A76
71	Padstow	1	Gibson Avenue, between Turvey Street and Bryant Street, Padstow	Retain	A77
72	Peakhurst	1	Henry Lawson Drive, between Belmont Road and Ogilvy Street	Retain	A78
73	Penshurst (sz)	1	Forest Road, between Penshurst Street and St Georges Street	Retain	A79
74	Picnic Point	1	Henry Lawson Drive, between Carinya Road and The River Road	Retain	A80
75	Queanbeyan	1	Lanyon Drive, between Tompsitt Drive and Hoover Road	Retain	A81
76	Randwick (sz)	1	Avoca Street, between Howard Street and Barker Road	Ineligible	A82
77	Rankin Park	1	McCaffrey Drive, between Duval Street and Orara Street	Retain	A83
78	Rosebery/Alexandria (sz)	2	Botany Road, between Gardeners Road and Gillespie Street	Retain	A84
79	Rydalmere (sz)	2	Victoria Road, between Park Road and John Road	Retain	A85
80	Ryde	1	Blaxland Road, between Reservoir Lane and North Road	Ineligible	A86
81	Ryde (sz)	2	Victoria Road, between Margaret Street and Cressy Road	Retain	A87
82	Sandgate	2	Pacific Highway, between Wallsend Road and Ironbark Creek	Retain	A88
83	South Windsor	1	George Street, between Rickaby Street and Yarrawonga Street	Ineligible	A89
84	Strathfield (sz)	1	The Boulevarde, between Torrington Parade and Russell Street	Retain	A90
85	Tenterfield	1	New England Highway, between Duncan Street and George Street	Retain	A91
86	Terrigal <mark>(sz)</mark>	1	Terrigal Drive, between Brunswick Road and Bellbird Avenue	Ineligible	A92
87	Toongabbie <mark>(sz)</mark>	2	Fitzwilliam Road, between Reynolds Street and Binalong Road	Retain	A93
88	Valla Beach	1	Pacific Highway, between Valla Beach Road and Oyster Creek	Ineligible	A94
89	Valley Heights	1	Great Western Highway, between The Valley Road and Sun Valley Road	Retain	A95
90	Wahroonga <mark>(sz)</mark>	2	Pacific Highway, between Gilda Avenue and Woodville Avenue	Retain	A96
91	Wardell	1	Pacific Highway, between Riverside Drive and Carlisle Street	Retain	A97

	Location	Cameras	Road	Status	Page
92	Warrawong	1	Northcliffe Drive, between Griffin Street and Kully Street	Retain	A98
93	West Pennant Hills	1	Castle Hill Road, between Pennant Hills Road and Coonara Avenue	Retain	A99
94	Wollongbar	1	Bruxner Highway, between Convernys Lane and McLeans Ridges Road	Retain	A100
95	Wollongong <mark>(sz)</mark>	1	Princes Highway, between Mount Keira Road and Highway Avenue	Retain	A101
96	Woodburn	1	Pacific Highway, between Sussex Street and Richmond Street	Retain	A102
97	Wyoming <mark>(sz)</mark>	1	Henry Parry Drive, between Glennie Street and Dwyer Street	Retain	A103
98	Yagoona	1	Hume Highway, between Smith Street and Brennan Avenue	Retain	A104
	Total:	121			

Crash and infringement data for these 98 camera locations are individually presented overleaf.

(sz: school zone)

#### 9820: Ashfield - Hume Highway, between Murrell Street and Queen Street

#### School zone: Ashfield Public School

This location is 410m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 7 August 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	19	18	↓ 5%
Serious	3	6	
Moderate	4	8	
Minor/Other	3	4	
Uncategorised	9	-	
Casualty Crashes	18	15	↓ 17%
Casualty Cost:	\$4.02M	\$3.81M	↓ 5%

<sup>1</sup> Ending 7 May 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

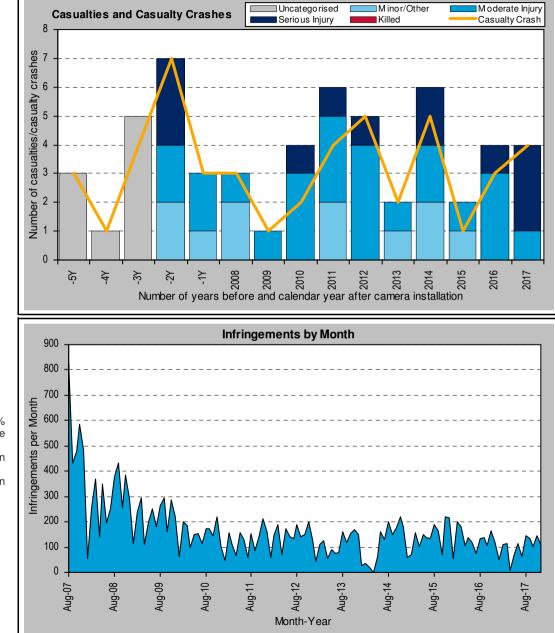
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 17% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.

• This location was reviewed in 2013 due to concerns about the increase in casualties in recent years. In the 2013 review it was recommended that the speed camera be retained.



## 9534: Auburn - Parramatta Road, between Harbord Street and Duck Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 15 May 2002.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	1	Increase
Total Injuries	79	50	↓ 37%
Serious	-	13	
Moderate	-	8	
Minor/Other	-	29	
Uncategorised	79	-	
Casualty Crashes	57	40	↓ 30%
Casualty Cost:	\$16.72M	\$18.18M	↑ 9%

<sup>1</sup> Ending 15 February 2002, 3 calendar months before installation.

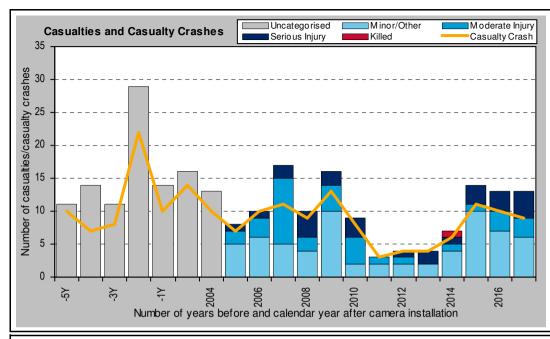
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

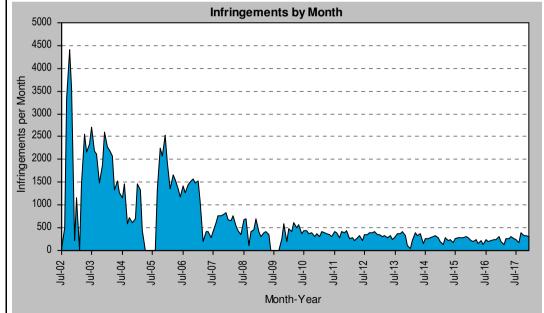
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 30% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.





## 9818 9819: Bankstown - Hume Highway, between Rookwood Road and Stacey Street

## School zone: Bankstown North Public School, La Salle Catholic School

This location is 670m patch to patch in length, and is enforced by 2 cameras. Both cameras commenced operating on 4 July 2007.

## **Casualties and Casualty Crashes**

	5 years before		end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	72	61	↓ 15%
Serious	4	11	
Moderate	17	19	
Minor/Other	10	31	
Uncategorised	41	-	
Casualty Crashes	57	54	↓ 5%
Casualty Cost:	\$15.24M	\$12.91M	↓ 15%

<sup>1</sup> Ending 4 April 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

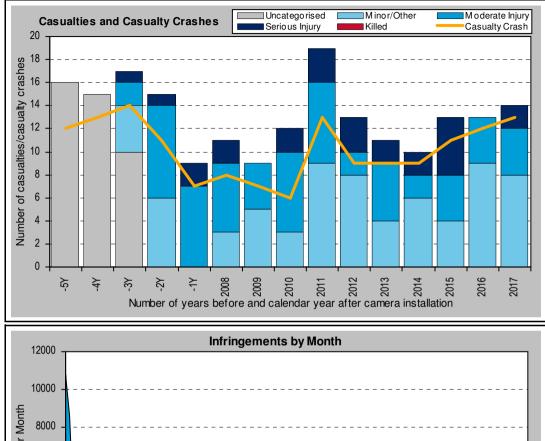
#### Status : Retain

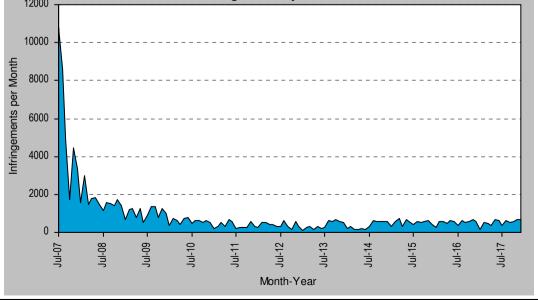
(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 5% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.

• This location was reviewed in 2013 due to concerns about the increase in casualties in recent years. The review found that during 2011 there were 28 casualties. This significant increase in the number of casualties included one crash involving a bus, resulting in 11 casualties. The number of casualty crashes has reduced in the following years. Speeding infringements were also found to have significantly reduced following the introduction of the speed cameras. It was recommended that the speed cameras be retained.





# 9616: Bar Point - M1 Pacific Motorway, between Jolls Bridge and Mt White Exit Ramp

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 10 April 2006.

## **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	16	15	↓ 6%
Serious	0	4	
Moderate	0	7	
Minor/Other	0	4	
Uncategorised	16	-	
Casualty Crashes	15	12	↓ 20%
Casualty Cost:	\$10.99M	\$3.18M	↓ 71%

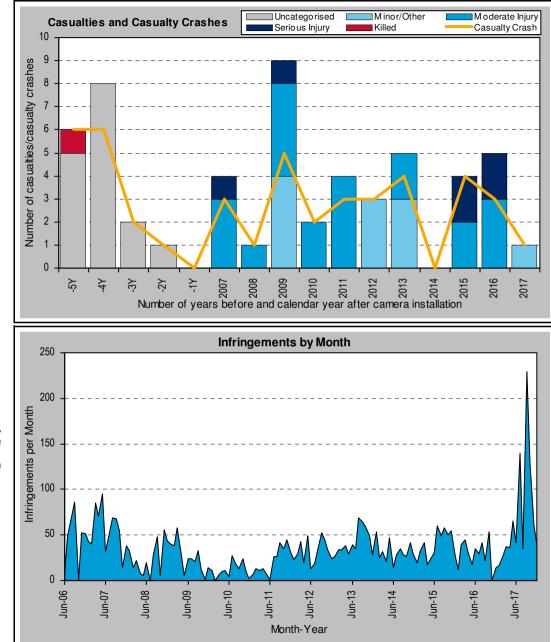
<sup>1</sup> Ending 10 January 2006, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 20% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9563: Ben Lomond - New England Highway, between Ross Road and Ben Lomond Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 4 September 2003.

## **Casualties and Casualty Crashes**

	5 years before		
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	8	0	↓ 100%
Serious	-	0	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	8	-	
Casualty Crashes	5	0	↓ 100%
Casualty Cost:	\$16.89M	\$0	↓ 100%

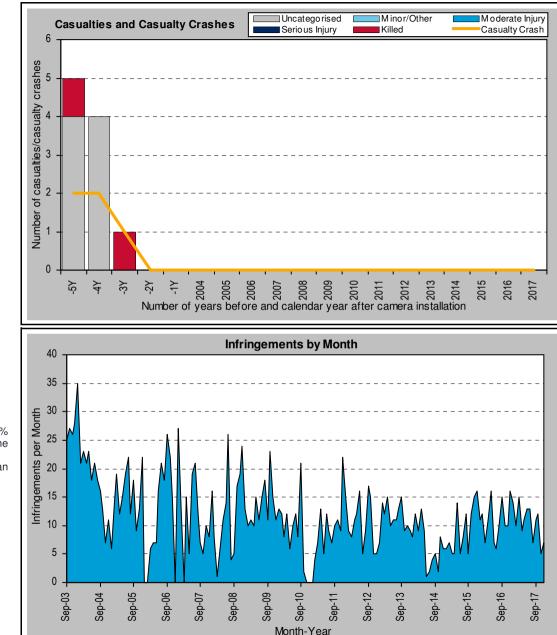
<sup>1</sup> Ending 4 June 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 100% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9643: Berkshire Park - Richmond Road, between Llandilo Road and Sanctuary Drive

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 30 June 2000.

## **Casualties and Casualty Crashes**

	4 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	18	24	↑ 7%
Serious	-	11	
Moderate	-	8	
Minor/Other	-	5	
Uncategorised	18	-	
Casualty Crashes	13	14	↓ 14%
Casualty Cost:	\$11.41M	\$5.08M	↓ 64%

<sup>1</sup> Ending 30 March 2000, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

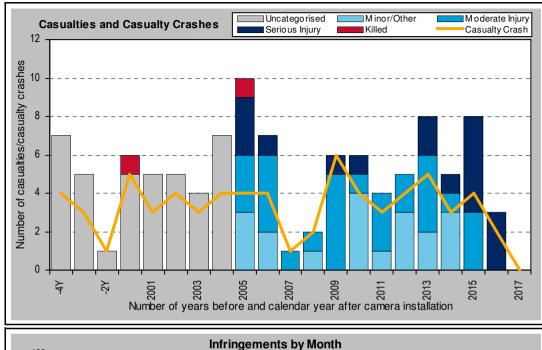
#### Status : Retain

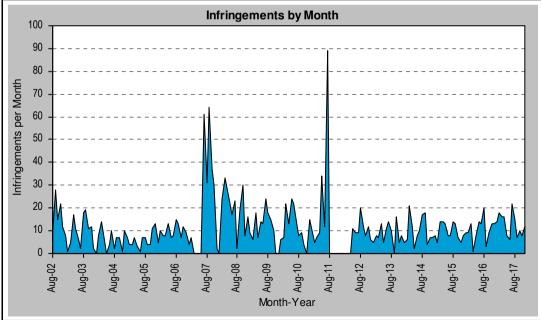
(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 14% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.

• This location was reviewed in 2014. The safety review found that the speed camera continues to provide safety benefits and it was recommended that the speed camera be retained.





## 9590: Berry - Princes Highway, between Kangaroo Valley Road and Victoria Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 28 April 2003.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	8	2	↓ 75%
Serious	-	0	
Moderate	-	2	
Minor/Other	-	0	
Uncategorised	8	-	
Casualty Crashes	5	2	↓ 60%
Casualty Cost:	\$1.69M	\$0.42M	↓ 75%

<sup>1</sup> Ending 28 January 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

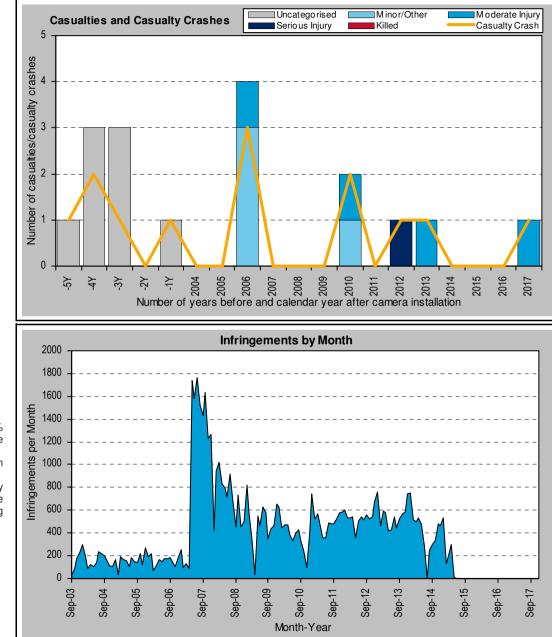
#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 60% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.

• In 2015, major traffic works commenced at this location for the construction of the Foxground and Berry bypass. The camera and accompanying signage has been removed for the works. The location will be reviewed once works are complete and a final decision will be made about the need for ongoing enforcement.



# 9822|9823: Beverly Hills - King Georges Road, between Stoney Creek Road and Edgbaston Road

## School zone: Beverly Hills Girls High School

This location is 1040m patch to patch in length, and is enforced by 2 cameras.

The cameras commenced operating on:

- Camera 1 (northbound) 9 July 2007
- Camera 2 (southbound) 20 July 2007

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	123	68	↓ 45%
Serious	6	11	
Moderate	31	24	
Minor/Other	24	33	
Uncategorised	62	-	
Casualty Crashes	84	57	↓ 32%
Casualty Cost:	\$33.64M	\$14.39M	↓ 57%

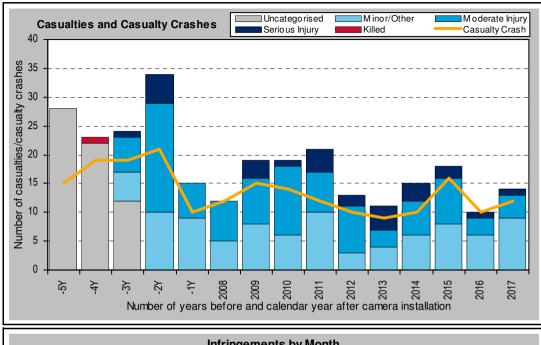
<sup>1</sup> Ending 9 April 2007, 3 calendar months before installation.

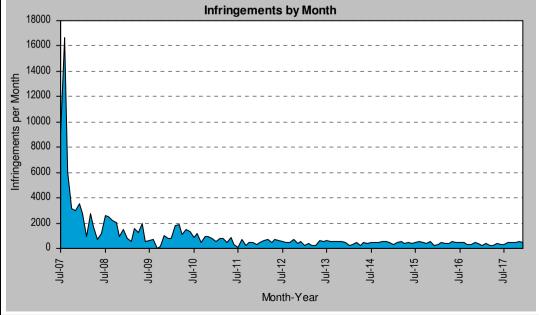
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 32% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





## 9617: Bexley North - Bexley Road, between Kingsland Road North and Miller Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 29 May 2006.

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	43	17	↓ 60%
Serious	3	4	
Moderate	5	11	
Minor/Other	1	2	
Uncategorised	34	-	
Casualty Crashes	29	13	↓ 55%
Casualty Cost:	\$16.70M	\$3.60M	↓ 78%

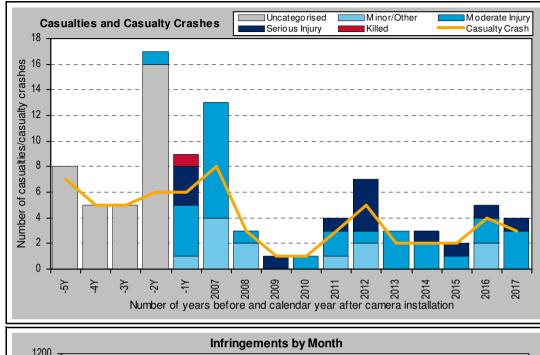
<sup>1</sup> Ending 1 March 2006, 3 calendar months before installation.

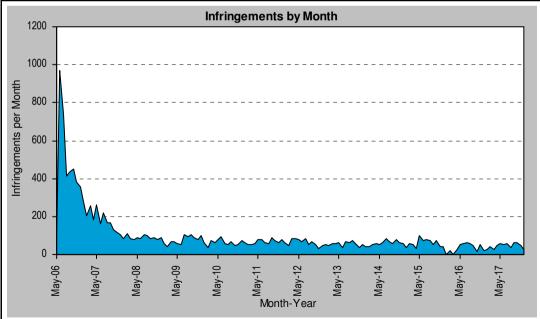
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 55% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





## 9579: Blandford - New England Highway, between Hayles Street and Mills Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 10 April 2002.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	3	0	↓ 100%
Serious	-	0	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	3	-	
Casualty Crashes	3	0	↓ 100%
Casualty Cost:	\$0.64M	\$0	↓ 100%

<sup>1</sup> Ending 10 January 2002, 3 calendar months before installation.

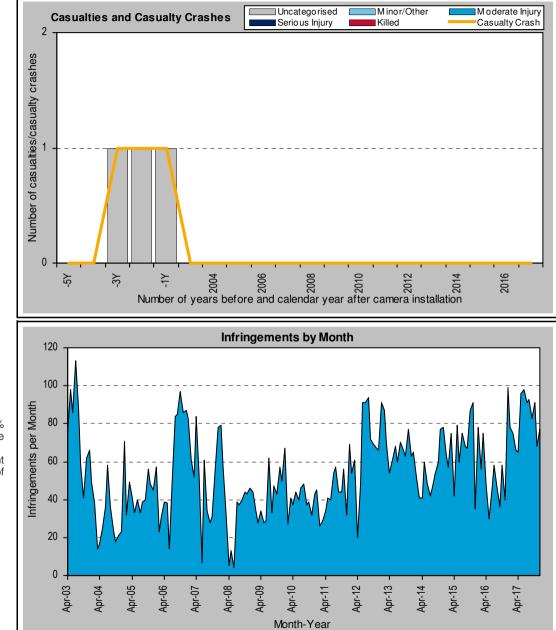
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 100% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



## 9594: Bomaderry - Bolong Road, between Beinda Street and Coomea Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 31 March 2003.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	9	12	↑ 33%
Serious	-	3	
Moderate	-	5	
Minor/Other	-	4	
Uncategorised	9	-	
Casualty Crashes	7	11	↑ 57%
Casualty Cost:	\$9.50M	\$2.54M	↓ 73%

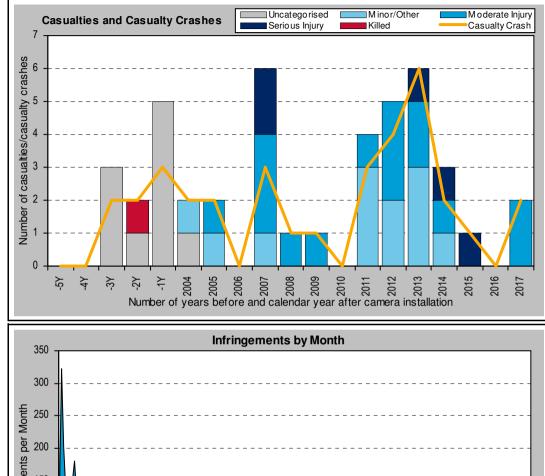
<sup>1</sup> Ending 31 December 2002, 3 calendar months before installation.

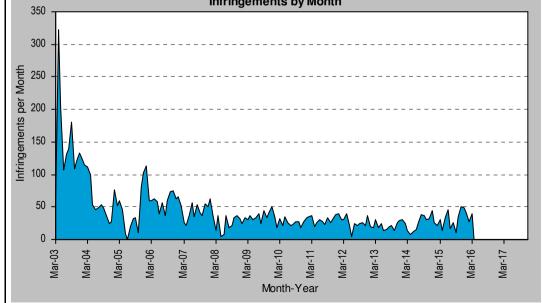
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 57% increase in casualty crashes at this fixed speed camera location. The increase in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.





## 9832: Bonnyrigg - Cabramatta Road, between Katinka Street and Tarlington Parade

## School zone: Bonnyrigg High School, Our Lady of Mt Carmel Primary School

This location is 1000m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 17 October 2007.

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	51	34	↓ 33%
Serious	6	5	
Moderate	13	14	
Minor/Other	6	15	
Uncategorised	26	-	
Casualty Crashes	25	28	↑ 12%
Casualty Cost:	\$10.80M	\$7.20M	↓ 33%

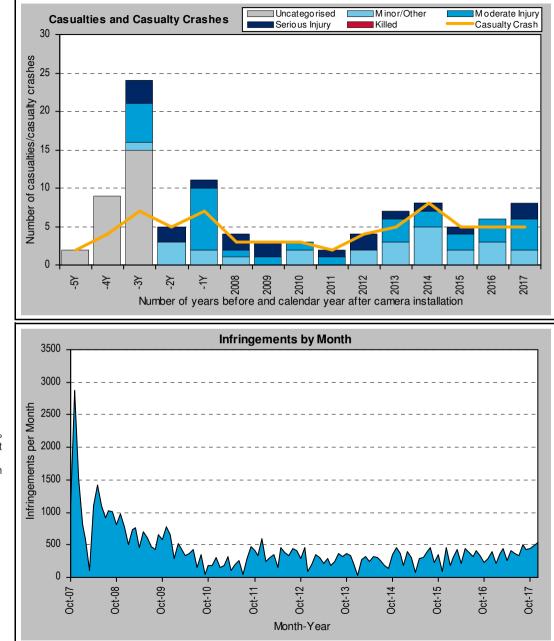
<sup>1</sup> Ending 17 July 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain and monitor

(There has been an increase in casualty crashes at this location, but the increase is not statistically significant. This location has not previously identified for review.)

• When comparing the pre installation period to the most recent five year period, there has been a 12% increase in casualty crashes at this fixed speed camera location. The increase in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.



## 9645: Bonnyrigg - Elizabeth Drive, between Brown Road and Humphries Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 7 July 2000.

#### **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	18	28	↑ 24%
Serious	-	3	
Moderate	-	18	
Minor/Other	-	7	
Uncategorised	18	-	
Casualty Crashes	12	21	↑ 40%
Casualty Cost:	\$19.01M	\$5.93M	↓ 75%

<sup>1</sup> Ending 7 April 2000. 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

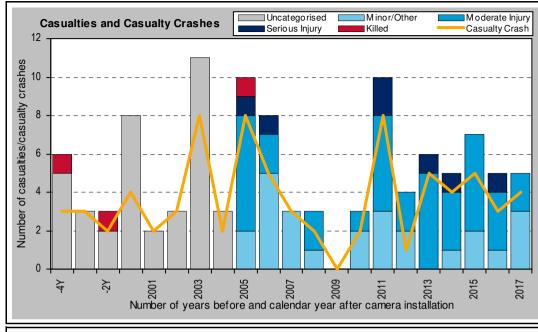
#### Status : Retain and monitor

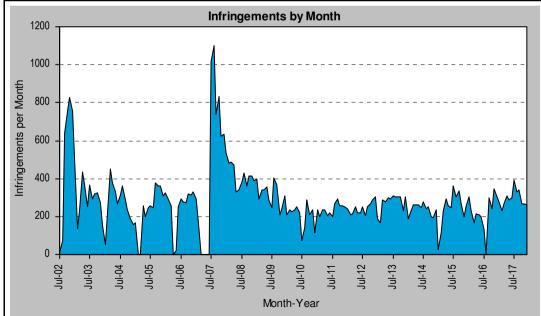
(There has been an increase in casualty crashes at this location, but the increase is not statistically significant. This location has not previously identified for review.)

• When comparing the pre installation period to the most recent five year period, there has been a 40% increase in casualty crashes at this fixed speed camera location. The increase in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. The spike in infringements from July 2007 can be attributed to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction. Since then, there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.

• A desktop review of this location was undertaken in 2015.





## 9612: Brogo - Princes Highway, between Pioneer Close and Brogo River

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 2 May 2003.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	3	0	↓ 100%
Serious	-	0	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	3	-	
Casualty Crashes	2	0	↓ 100%
Casualty Cost:	\$0.64M	\$0	↓ 100%

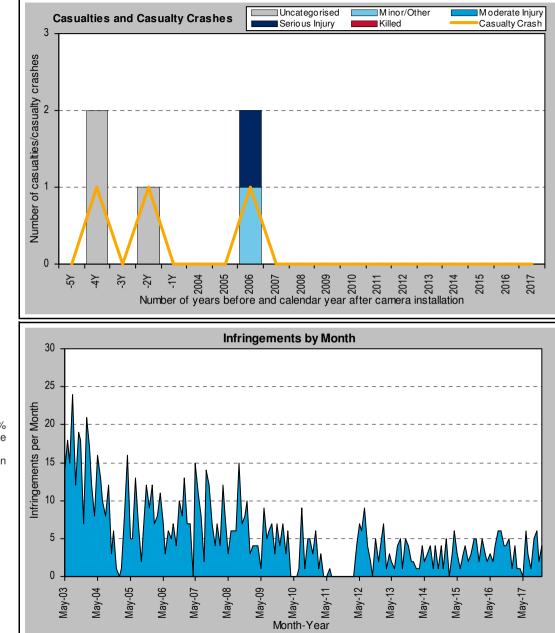
<sup>1</sup> Ending 2 February 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 100% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



## 9509: Bulli - Princes Highway, between Grevillea Park Road and Black Diamond Place

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 4 December 2001.

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	29	9	↓ 69%
Serious	-	4	
Moderate	-	2	
Minor/Other	-	3	
Uncategorised	29	-	
Casualty Crashes	26	9	↓ 65%
Casualty Cost:	\$13.74M	\$1.91M	↓ 86%

<sup>1</sup> Ending 4 September 2001, 3 calendar months before installation.

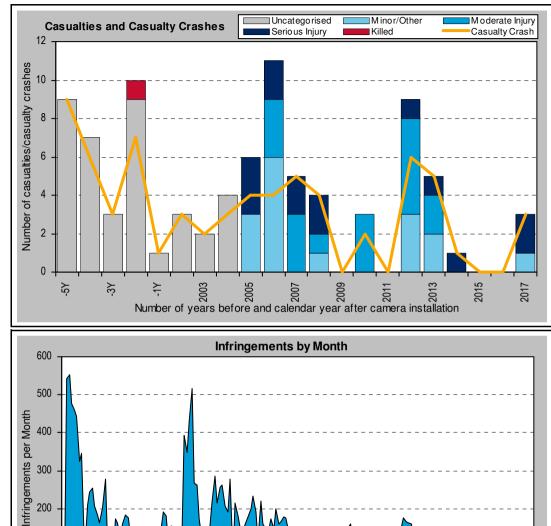
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 65% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. The spike in infringements from July 2006 may be attributed to the camera commencing speed enforcement of both directions of traffic where it previously enforced one direction. Since then, there has been a reduction in speeding behaviour at this location over time. Roadworks and camera maintenance may influence the number of infringements issued.



100

0

Jul-02

Jul-03

Jul-04

Jul-06

Jul-08

Jul-07

Jul-09

Jul-10

Month-Year

Jul-12

Jul-11

Jul-13

Jul-14

Jul-15

Jul-16

Jul-05

Jul-17

# 9652: Burringbar - Tweed Valley Way, between Blakeneys Road and Cooradilla Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 2 April 1999.

## **Casualties and Casualty Crashes**

	3 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	3	0	↓ 100%
Total Injuries	4	2	↓ 70%
Serious	-	2	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	4	-	
Casualty Crashes	4	2	↓ 70%
Casualty Cost:	\$23.64M	\$0.42M	↓ 99%

<sup>1</sup> Ending 2 January 1999, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

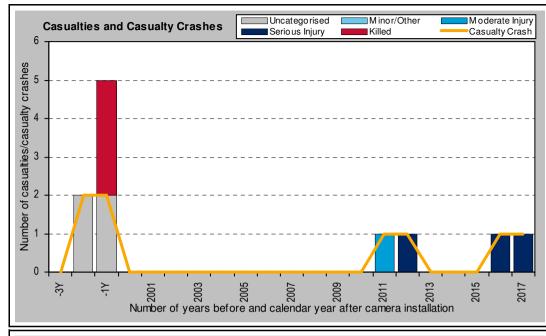
#### Status : Ineligible

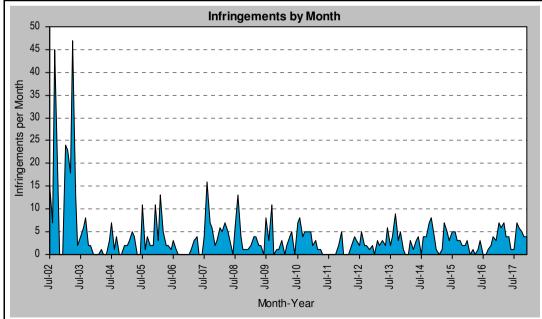
(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 70% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.

• This camera is located on a section of road that was formerly the Pacific Highway, that has been bypassed. While there is a low level of speeding infringements at this location, the review will help determine whether there are road safety risks that require ongoing speed enforcement at this location.





## 9522: Burwood Heights - Hume Highway, between Kelso Street and Appian Way

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 5 December 2001.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	50	19	↓ 62%
Serious	-	3	
Moderate	-	11	
Minor/Other	-	5	
Uncategorised	50	-	
Casualty Crashes	37	15	↓ 59%
Casualty Cost:	\$10.58M	\$4.02M	↓ 62%

<sup>1</sup> Ending 5 September 2001, 3 calendar months before installation.

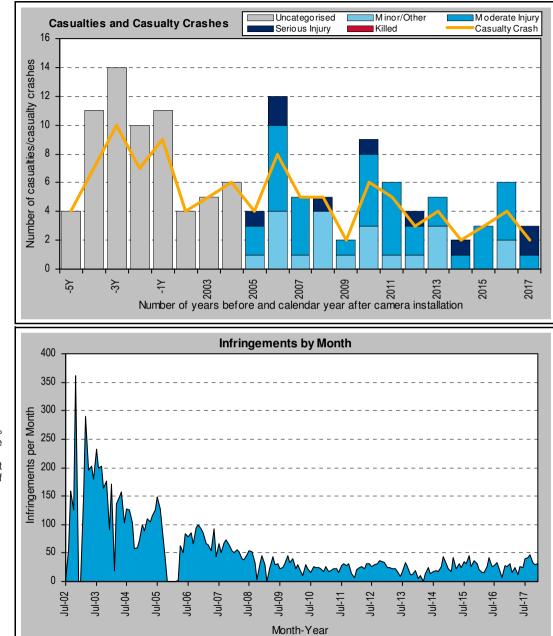
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 59% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



# 9540: Camellia - James Ruse Drive, between Victoria Road and Grand Avenue North

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 6 December 2001.

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	1	0%
Total Injuries	56	49	↓ 13%
Serious	-	14	
Moderate	-	12	
Minor/Other	-	23	
Uncategorised	56	-	
Casualty Crashes	36	36	0%
Casualty Cost:	\$19.45M	\$17.97M	↓ 8%

<sup>1</sup> Ending 6 September 2001, 3 calendar months before installation.

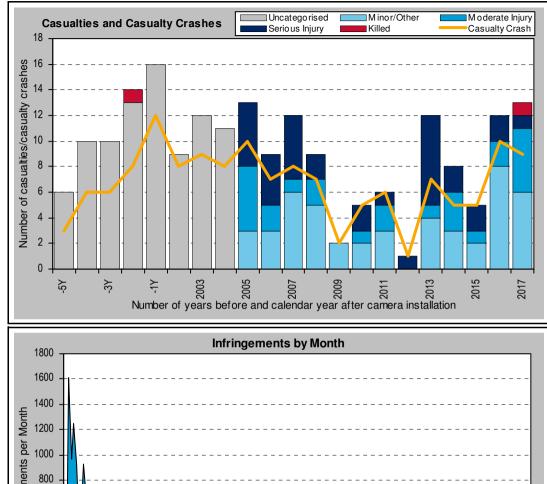
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

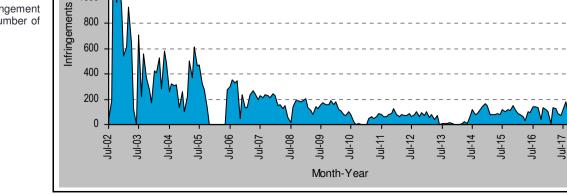
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes at this fixed speed camera location. The change in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.





## 9651: Canterbury - Canterbury Road, between Gould Street and Jeffrey Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 19 April 2001.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	91	37	↓ 59%
Serious	-	7	
Moderate	-	12	
Minor/Other	-	18	
Uncategorised	91	-	
Casualty Crashes	74	32	↓ 57%
Casualty Cost:	\$26.86M	\$7.83M	↓ 71%

<sup>1</sup> Ending 19 January 2001, 3 calendar months before installation.

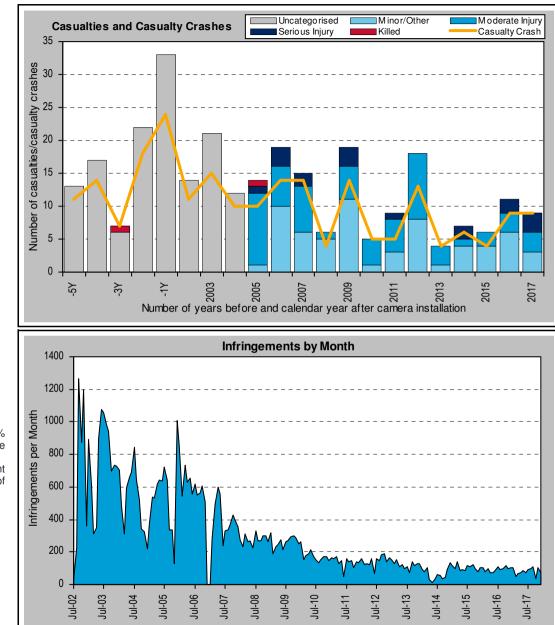
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 57% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



Month-Year

# 9626: Caringbah - Captain Cook Drive, between Cawarra Road and Gannons Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 12 April 2001.

## **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	22	18	↓ 18%
Serious	-	5	
Moderate	-	7	
Minor/Other	-	6	
Uncategorised	22	-	
Casualty Crashes	15	15	0%
Casualty Cost:	\$12.26M	\$3.81M	↓ 69%

<sup>1</sup> Ending 12 January 2001, 3 calendar months before installation.

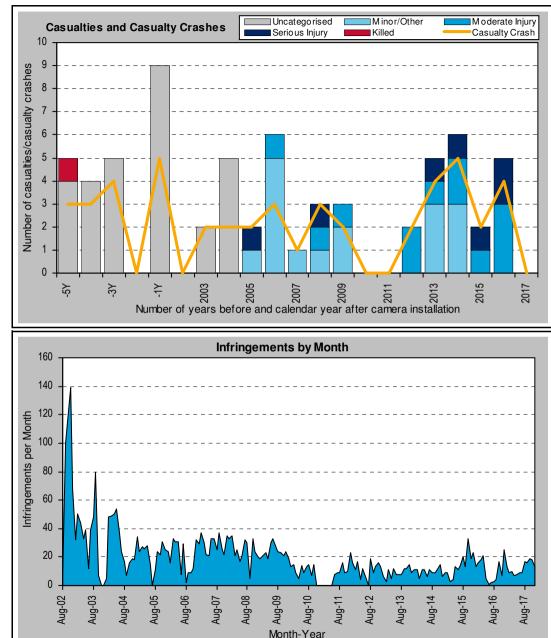
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes at this fixed speed camera location. The change in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. No infringements were recorded at this location from November 2010 to May 2011 as a replacement camera was installed. Roadworks and camera maintenance may influence the number of infringements issued.



# 9553: Carlingford - Pennant Hills Road, between Evans Road and Coleman Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 16 August 2002.

## **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	55	38	↓ 31%
Serious	-	8	
Moderate	-	9	
Minor/Other	-	21	
Uncategorised	55	-	
Casualty Crashes	42	30	↓ 29%
Casualty Cost:	\$11.64M	\$8.04M	↓ 31%

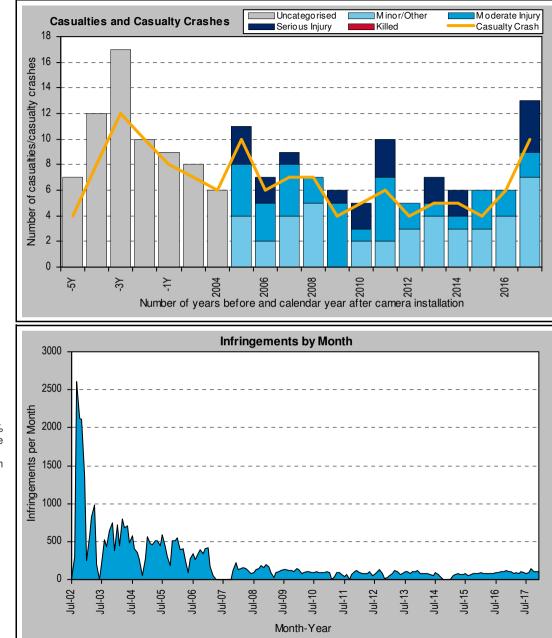
<sup>1</sup> Ending 16 May 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 29% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



## 9804: Castle Hill - Old Northern Road, between Telfer Road and Brisbane Road

## School zone: St Bernadette's Primary School

This location is 430m patch to patch in length, and is enforced with one camera. The camera commenced operating on 18 May 2007.

## **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	9	3	↓ 67%
Serious	1	2	
Moderate	0	0	
Minor/Other	3	1	
Uncategorised	5	-	
Casualty Crashes	8	3	↓ 63%
Casualty Cost:	\$1.91M	\$0.64M	↓ 67%

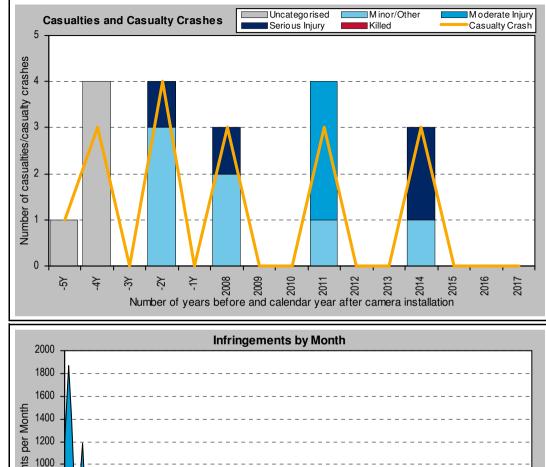
<sup>1</sup> Ending 18 February 2007, 3 calendar months before installation.

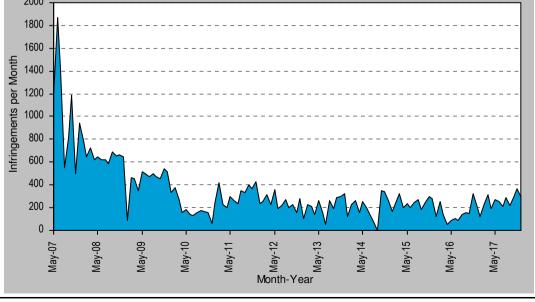
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 63% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





## 9622: Charmhaven - Pacific Highway, between Wallarah Creek and Lowana Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 10 April 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	24	17	↓ 29%
Serious	4	5	
Moderate	6	10	
Minor/Other	2	2	
Uncategorised	12	-	
Casualty Crashes	18	9	↓ 50%
Casualty Cost:	\$5.08M	\$3.60M	↓ 29%

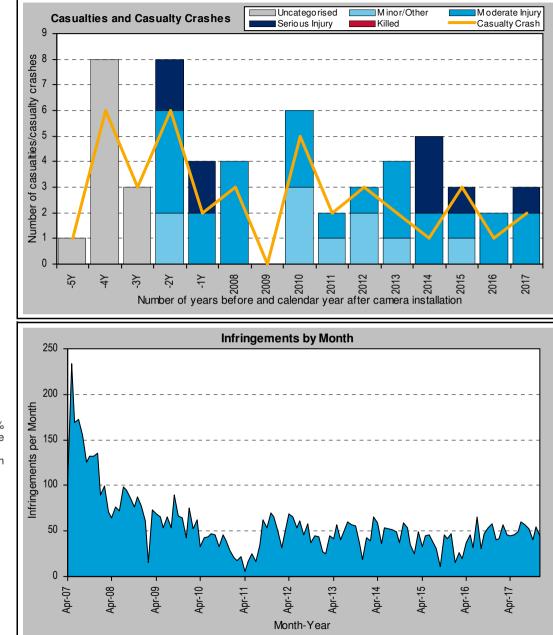
<sup>1</sup> Ending 10 January 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 50% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9625: Concord West - Concord Road, between Nirranda Street and Mepunga Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 24 July 2000.

## **Casualties and Casualty Crashes**

	4 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	22	26	↓ 5%
Serious	-	4	
Moderate	-	10	
Minor/Other	-	12	
Uncategorised	22	-	
Casualty Crashes	17	18	↓ 15%
Casualty Cost:	\$4.66M	\$5.50M	↓ 5%

<sup>1</sup> Ending 24 April 2000, 3 calendar months before installation.

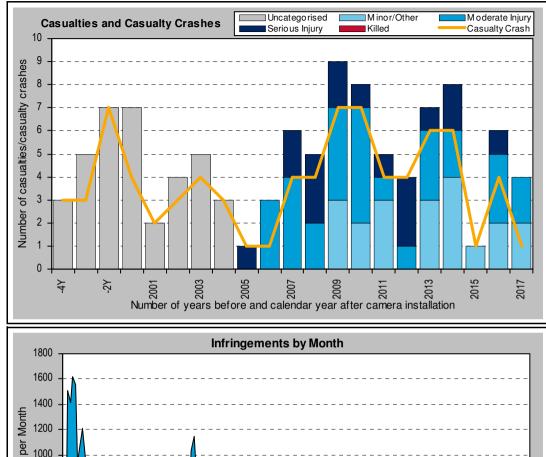
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

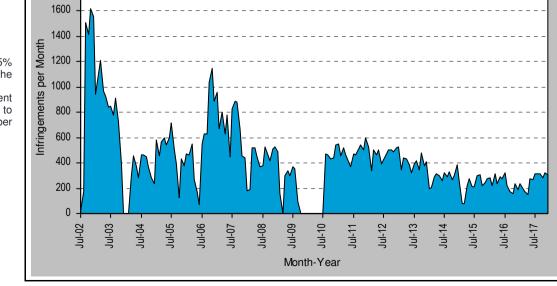
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 15% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. No infringements were recorded at this location from October 2009 to July 2010 due to road resurfacing works. Roadworks and camera maintenance may influence the number of infringements issued.





## 9828: Condell Park - Edgar Street, between Augusta Street and Upper Railway Parade

## School zone: Condell Park Primary School

This location is 240m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 24 October 2007.

## **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	19	7	↓ 63%
Serious	0	1	
Moderate	4	1	
Minor/Other	7	5	
Uncategorised	8	-	
Casualty Crashes	17	6	↓ 65%
Casualty Cost:	\$11.62M	\$1.48M	↓ 87%

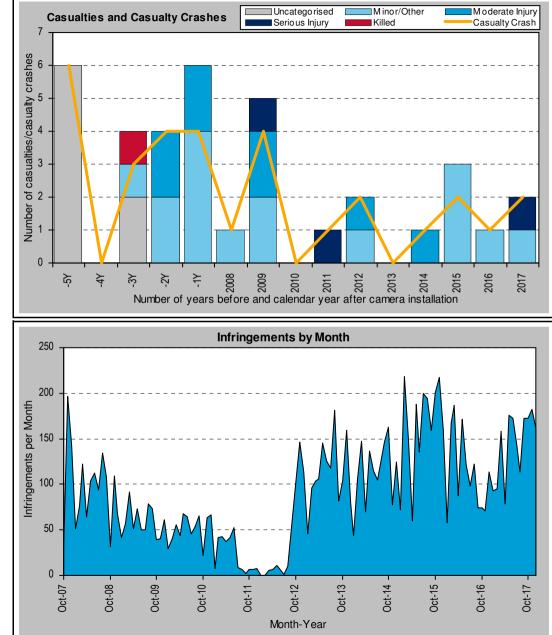
<sup>1</sup> Ending 24 July 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 65% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9556 9557: Corrimal - Northern Distributor (Memorial Drive), between Towradgi Road and Railway Street

This location is 1000m in length, and is enforced by 2 cameras.

- The cameras commenced operating on:
- Camera 1 (northbound) 11 July 2002
- Camera 2 (southbound) 25 July 2002

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	1	0%
Total Injuries	29	24	↓ 17%
Serious	-	7	
Moderate	-	12	
Minor/Other	-	5	
Uncategorised	29	-	
Casualty Crashes	19	18	↓ 5%
Casualty Cost:	\$13.74M	\$12.68M	↓ 8%

<sup>1</sup> Ending 11 April 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

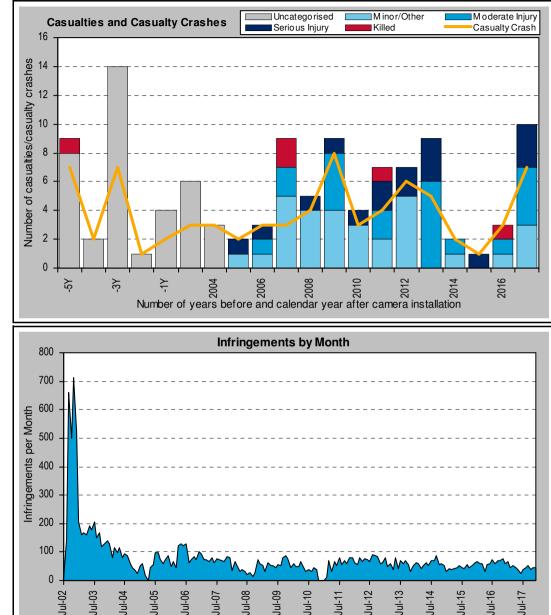
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 5% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.

• This location was reviewed in 2012 due to concerns about the increase in fatalities in recent years. The review found no evidence that the recent fatality, which occurred at an adjacent intersection, were speed-related and it is unlikely that the speed camera would have reduced these crashes.



Month-Year

# 9811|9812: East Gardens/ Maroubra - Bunnerong Road, between Fitzgerald Avenue and Smith Street

## School zone: Marist College Pagewood

This location is 370m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 20 June 2007.

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	17	4	↓ 76%
Serious	1	1	
Moderate	6	1	
Minor/Other	2	2	
Uncategorised	8	-	
Casualty Crashes	13	4	↓ 69%
Casualty Cost:	\$3.60M	\$0.85M	↓ 76%

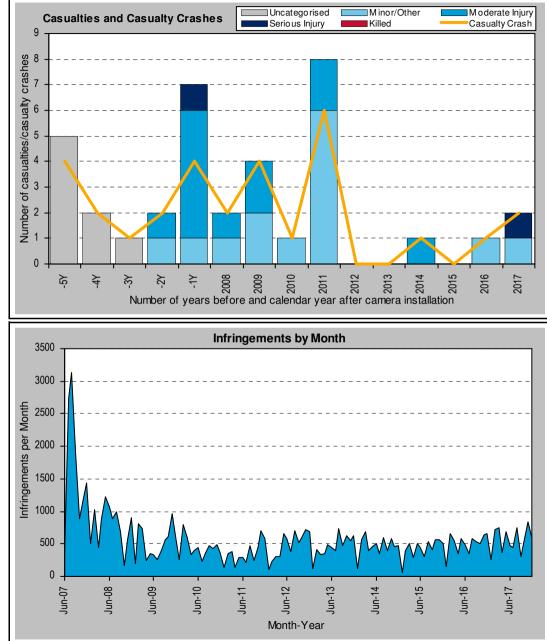
<sup>1</sup> Ending 20 March 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 69% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



## 9549: Edgecliff - New South Head Road, between Waratah Street and New Beach Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 7 December 2001.

## **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	43	26	↓ 40%
Serious	-	4	
Moderate	-	10	
Minor/Other	-	12	
Uncategorised	43	-	
Casualty Crashes	37	24	↓ 35%
Casualty Cost:	\$9.10M	\$5.50M	↓ 40%

<sup>1</sup> Ending 7 September 2001, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

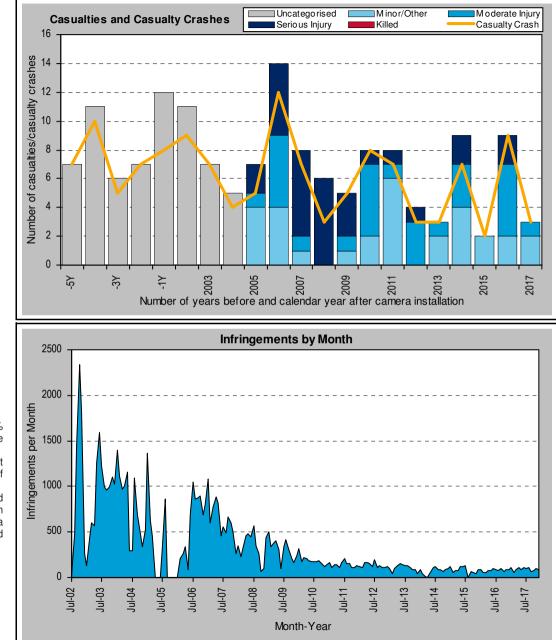
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 35% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.

• This location was reviewed in 2012 due to concerns that crashes and casualties at this location had increased. The comprehensive review found that the camera only has an impact on the eastbound direction of traffic because the camera only enforces in this direction and there is a very wide median at the camera location. Therefore the camera was found to be effective and this crash analysis looks only at the eastbound carriageway of New South Head Road.



## 9669: Engadine - Heathcote Road, between Forum Drive and New Illawarra Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 4 June 2017.

#### **Casualties and Casualty Crashes**

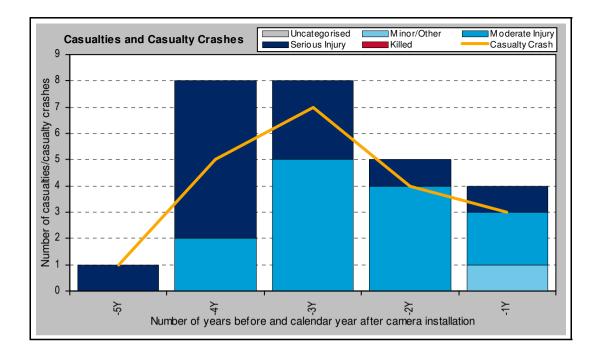
	5 years before	0.57 years	to end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	26	0	↓ 100%
Serious	12	0	
Moderate	13	0	
Minor/Other	1	0	
Uncategorised	0	-	
Casualty Crashes	20	0	↓ 100%
Casualty Cost:	\$5.50M	\$0	↓ 100%

<sup>1</sup> Ending 4 March 2017, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Insufficient data

• CRS will develop further commentary when there is additional data available for this location in the future.



# 9623: Ewingsdale - Pacific Highway, between St Helena Road and Ewingsdale Road.

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 22 September 2006.

## **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	23	1	↓ 96%
Serious	2	0	
Moderate	0	1	
Minor/Other	3	0	
Uncategorised	18	-	
Casualty Crashes	14	1	↓ 93%
Casualty Cost:	\$12.47M	\$0.21M	↓ 98%

<sup>1</sup> Ending 22 June 2006, 3 calendar months before installation.

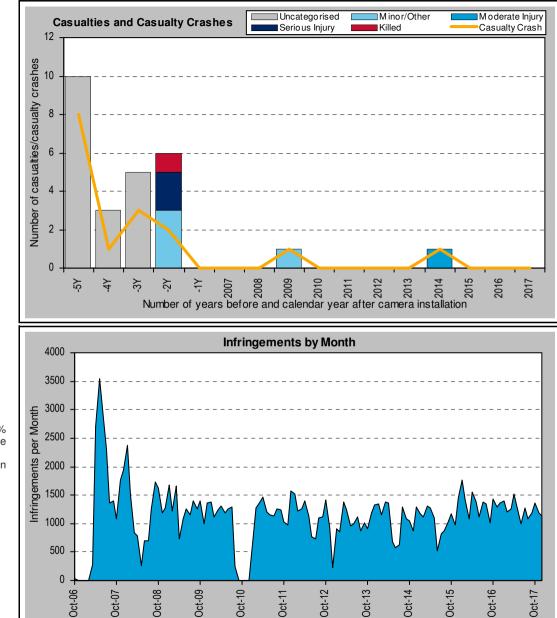
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 93% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.



Month-Year

# 9561: Fairfield East - Fairfield Street, between Scott Street and Mandarin Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 4 July 2002.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	22	14	↓ 36%
Serious	-	3	
Moderate	-	5	
Minor/Other	-	6	
Uncategorised	22	-	
Casualty Crashes	16	9	↓ 44%
Casualty Cost:	\$12.26M	\$2.96M	↓ 76%

<sup>1</sup> Ending 4 April 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

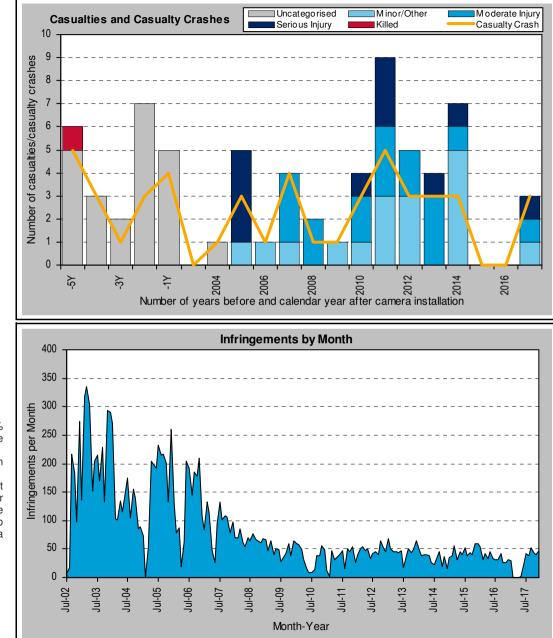
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 44% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.

• This location was reviewed in 2013 due to concerns about the increase in crashes and casualties in recent years. The 2013 review found that since the speed camera was installed, the number of crashes per year had decreased. The review also found that the number of injury crashes per year decreased. While there was one fatal crash with one fatality prior to the installation of the speed camera, there have been no fatalities since the camera has been in operation. Therefore based on this information, the speed camera has been retained.



# 9593: Foxground - Princes Highway, between Foxground Road and Broughton Creek

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 9 May 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	11	7	↓ 36%
Serious	-	2	
Moderate	-	5	
Minor/Other	-	0	
Uncategorised	11	-	
Casualty Crashes	8	3	↓ 63%
Casualty Cost:	\$9.93M	\$1.48M	↓ 85%

<sup>1</sup> Ending 9 February 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

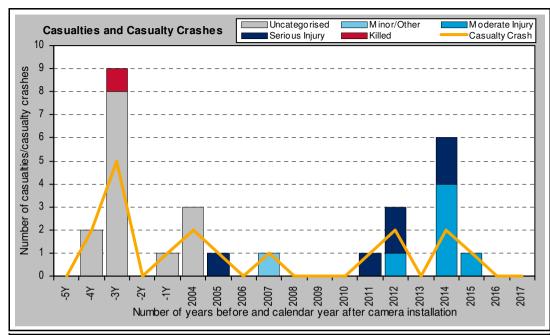
## Status : Ineligible

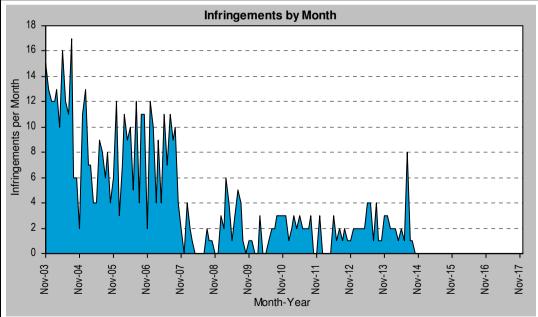
(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 63% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.

• In 2015, major traffic works commenced at this location for the construction of the Foxground and Berry bypass. The camera and accompanying signage has been removed for the works. The location will be reviewed once works are complete and a final decision will be made about the need for ongoing enforcement.





## 9637: Gateshead - Pacific Highway, between Sydney Street and Macquarie Avenue

School zone: Hunter Sports High School, Gateshead Public School, St Mary's High School This location is 820m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 30 May 2000.

#### **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	4	5	0%
Serious	-	2	
Moderate	-	3	
Minor/Other	-	0	
Uncategorised	4	-	
Casualty Crashes	4	4	↓ 20%
Casualty Cost:	\$0.85M	\$1.06M	0%

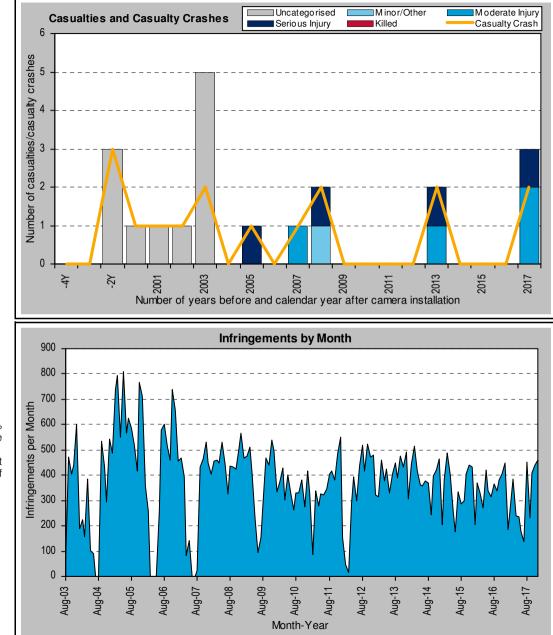
<sup>1</sup> Ending 1 March 2000, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 20% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9543: Greystanes - Greystanes Road, between Merrylands Road and Old Prospect Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 30 November 2001.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	15	6	↓ 60%
Serious	-	3	
Moderate	-	0	
Minor/Other	-	3	
Uncategorised	15	-	
Casualty Crashes	13	6	↓ 54%
Casualty Cost:	\$3.18M	\$1.27M	↓ 60%

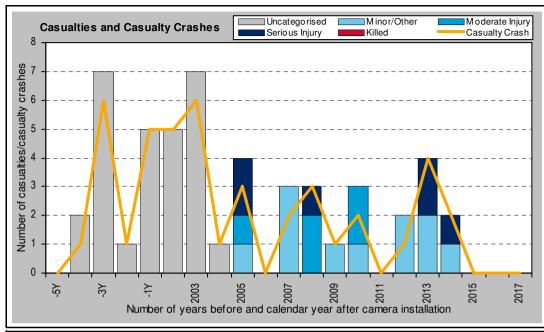
<sup>1</sup> Ending 30 August 2001, 3 calendar months before installation.

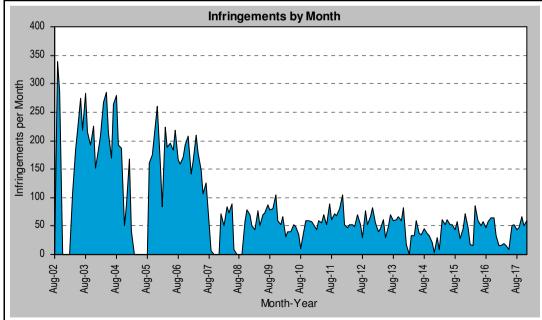
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

## Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 54% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9806|9807: Guildford - Woodville Road, between Kenelda Avenue and Osgood Street

## School zone: Granville South Public School

This location is 500m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 16 May 2007.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	43	25	↓ 42%
Serious	6	3	
Moderate	6	2	
Minor/Other	1	20	
Uncategorised	30	-	
Casualty Crashes	29	19	↓ 34%
Casualty Cost:	\$16.70M	\$5.29M	↓ 68%

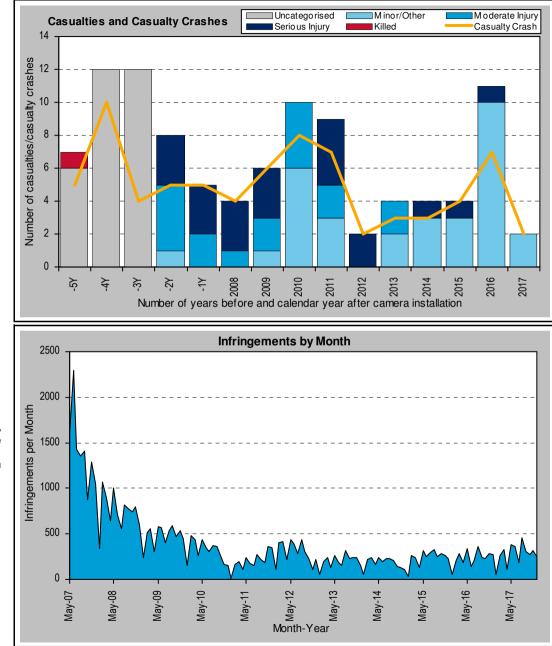
<sup>1</sup> Ending 16 February 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 34% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9597: Gwynneville - M1 Princes Motorway, between Northern Distributor Overpass and Gipps Road Overpass (northbound)

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 7 August 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	32	4	↓ 88%
Serious	-	0	
Moderate	-	4	
Minor/Other	-	0	
Uncategorised	32	-	
Casualty Crashes	15	4	↓ 73%
Casualty Cost:	\$6.77M	\$0.85M	↓ 88%

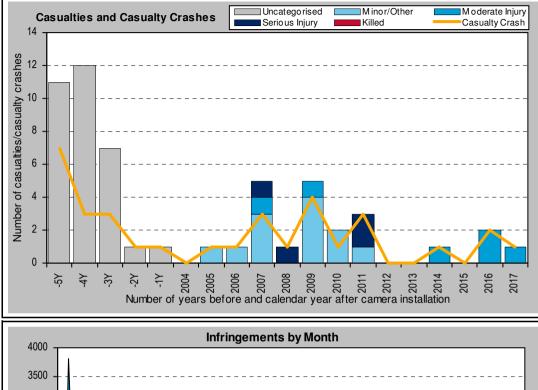
<sup>1</sup> Ending 7 May 2003, 3 calendar months before installation.

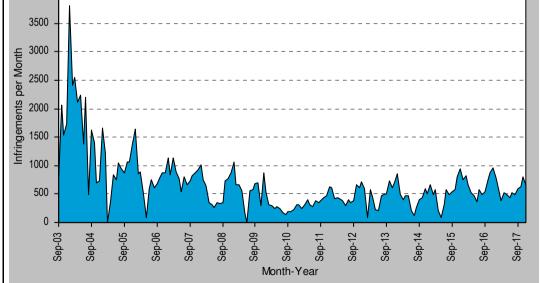
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 73% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9662: Gwynneville - M1 Princes Motorway, University Avenue Overpass and Mount Ousley Road (southbound)

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 7 August 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	7	2	↓ 71%
Serious	-	1	
Moderate	-	0	
Minor/Other	-	1	
Uncategorised	7	-	
Casualty Crashes	3	2	↓ 33%
Casualty Cost:	\$9.08M	\$0.42M	↓ 95%

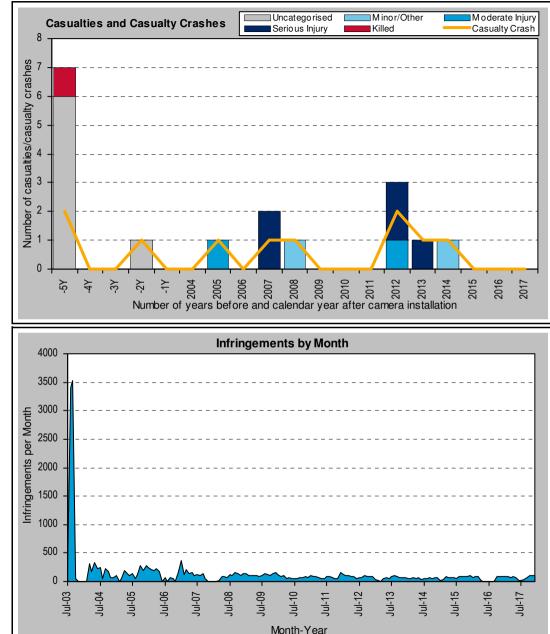
<sup>1</sup> Ending 7 May 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 33% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9631: Hartley - Great Western Highway, between Mid Hartley Road and Blackmans Creek Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 6 December 2000.

# **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	4	2	↓ 60%
Serious	-	1	
Moderate	-	1	
Minor/Other	-	0	
Uncategorised	4	-	
Casualty Crashes	3	1	↓ 73%
Casualty Cost:	\$0.85M	\$0.42M	↓ 60%

<sup>1</sup> Ending 6 September 2000, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

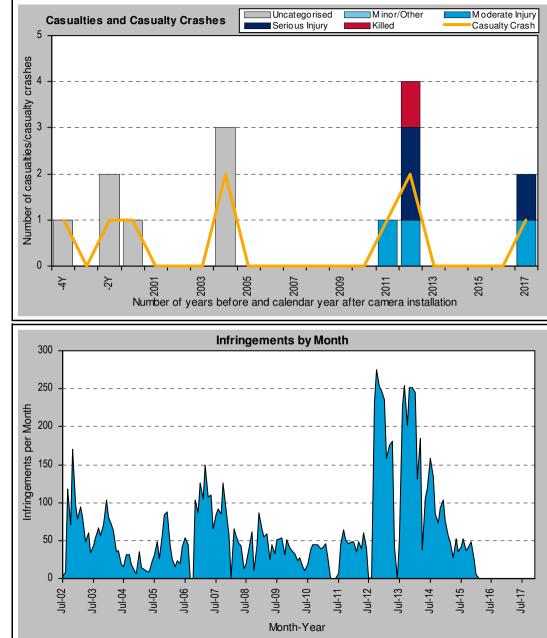
## Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 73% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.

 $\ensuremath{\cdot}$  This location was recommended for review in the 2014 annual speed camera review.



# 9567: Hungry Head - Pacific Highway, between Boundary Road and Ballards Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 25 November 2002.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	2	5	↑ 150%
Serious	-	0	
Moderate	-	5	
Minor/Other	-	0	
Uncategorised	2	-	
Casualty Crashes	2	2	0%
Casualty Cost:	\$8.02M	\$1.06M	↓ 87%

<sup>1</sup> Ending 25 August 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

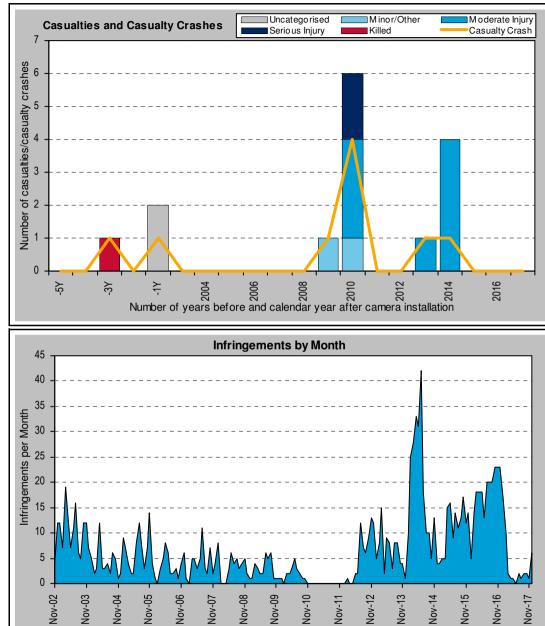
#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes at this fixed speed camera location. The change in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.

• 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.

• This location was reviewed in 2012 due to concerns that casualties at this location had increased. This speed camera is also located on a section of the Pacific highway which is yet to be upgraded. This camera was retained until the road was bypassed as part of the Pacific Highway upgrade.



Month-Year

## 9830: Hurstville - Forest Road, between Lily Street and Cronulla Street

### School zone: Bethany College, Sydney Technical High School, Hurstville Boys High School, Hurstville Primary School

This location is 710m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 17 October 2007.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	27	25	↓ 7%
Serious	5	3	
Moderate	6	16	
Minor/Other	1	6	
Uncategorised	15	-	
Casualty Crashes	18	17	↓ 6%
Casualty Cost:	\$5.72M	\$5.29M	↓7%

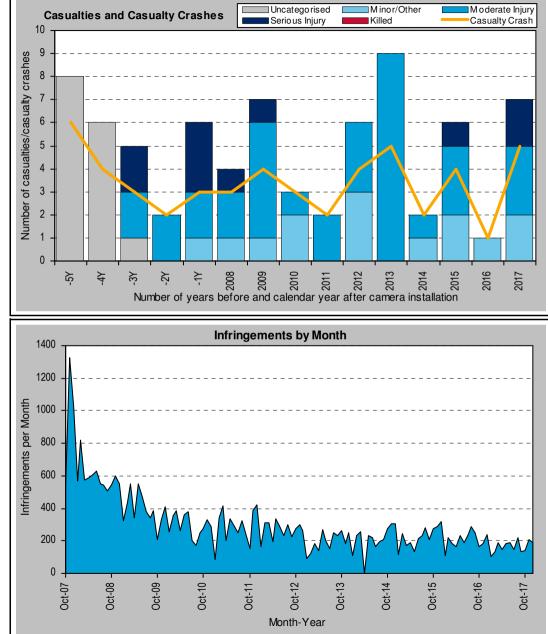
<sup>1</sup> Ending 17 July 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 6% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9845|9846: Kingswood - Parker Street, between Copeland Street and Gascoigne Street

## School zone: St Dominics College

This location is 340m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 28 January 2009.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	30	21	↓ 30%
Serious	5	6	
Moderate	7	10	
Minor/Other	16	5	
Uncategorised	2	-	
Casualty Crashes	16	15	↓ 6%
Casualty Cost:	\$6.35M	\$4.45M	↓ 30%

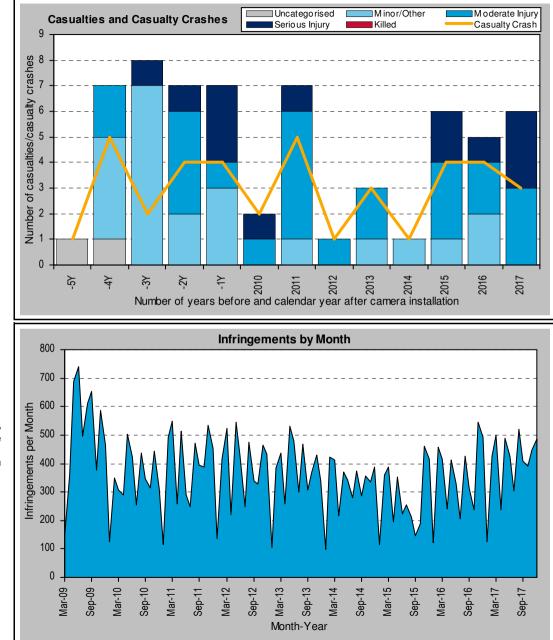
<sup>1</sup> Ending 28 October 2008, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 6% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



### 9600|9601: Kogarah - Princes Highway, between Gray Street and President Avenue

### School zone: St Patricks Primary School, Bethany College, James Cook Boys High School, Moorefield Girls High School, Kogarah Public School

This location is 990m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 15 July 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	69	52	↓ 25%
Serious	-	10	
Moderate	-	21	
Minor/Other	-	21	
Uncategorised	69	-	
Casualty Crashes	54	44	↓ 19%
Casualty Cost:	\$22.20M	\$11.01M	↓ 50%

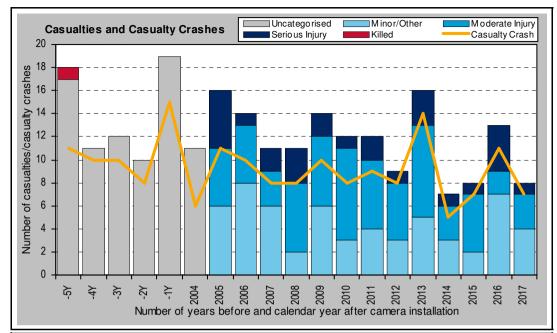
<sup>1</sup> Ending 15 April 2003, 3 calendar months before installation.

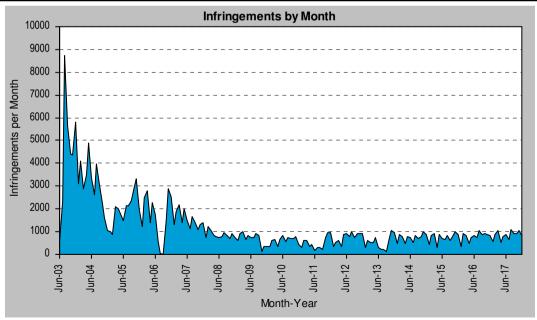
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 19% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9574: Korora - Pacific Highway, between Bruxner Park Road and Korora Basin Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 20 February 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	6	2	↓ 67%
Serious	-	1	
Moderate	-	1	
Minor/Other	-	0	
Uncategorised	6	-	
Casualty Crashes	7	2	↓ 71%
Casualty Cost:	\$8.87M	\$0.42M	↓ 95%

<sup>1</sup> Ending 20 November 2002, 3 calendar months before installation.

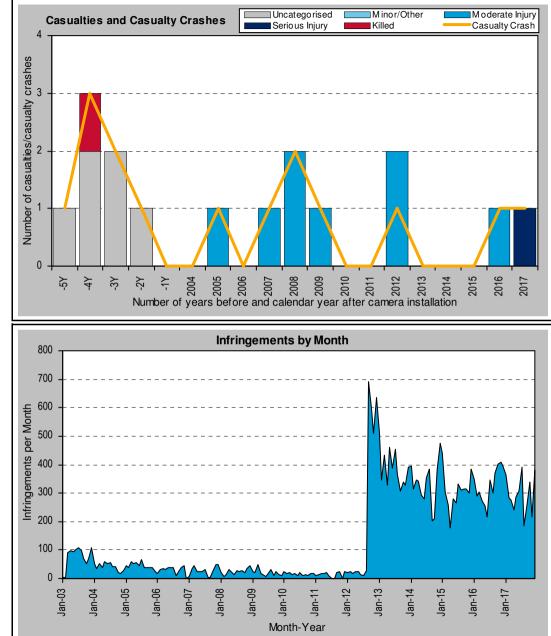
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

## Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 71% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The spike in infringements in July 2012 can be attributed to a speed limit change from 100km/h to 80km/h. Roadworks and camera maintenance may influence the number of infringements issued.



# 9638: Kurrajong - Bells Line of Road, between Queen Street and Bellbird Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 22 May 2000.

### **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	6	2	↓ 73%
Serious	-	0	
Moderate	-	2	
Minor/Other	-	0	
Uncategorised	6	-	
Casualty Crashes	4	2	↓ 60%
Casualty Cost:	\$1.27M	\$0.42M	↓ 73%

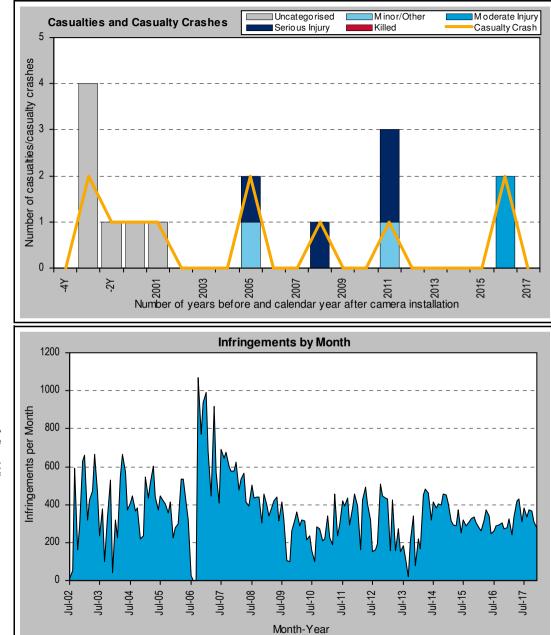
<sup>1</sup> Ending 22 February 2000, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 60% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9550: Lane Cove - Centennial Avenue, between Gentle Street and Figtree Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 10 December 2001.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	2	↑ 100%
Total Injuries	21	17	↓ 19%
Serious	-	4	
Moderate	-	10	
Minor/Other	-	3	
Uncategorised	21	-	
Casualty Crashes	21	17	↓ 19%
Casualty Cost:	\$12.04M	\$18.80M	↑ 56%

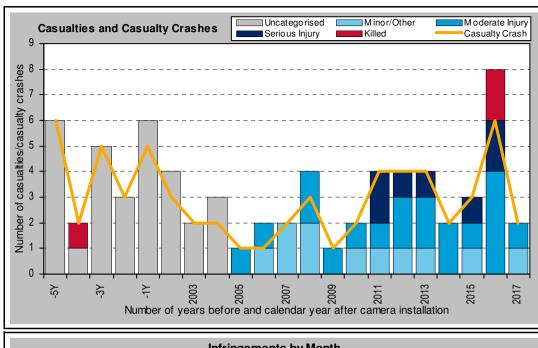
<sup>1</sup> Ending 10 September 2001, 3 calendar months before installation.

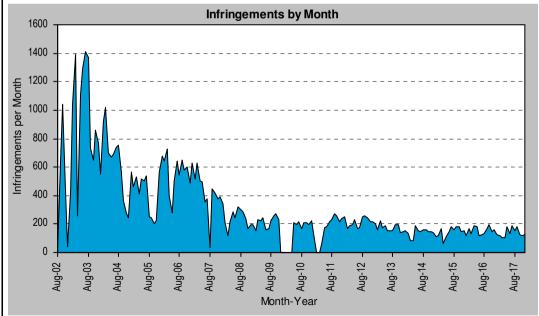
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 19% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9546: Lansvale - Hume Highway, between Henry Lawson Drive and Knight Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 5 December 2001.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	69	57	↓ 17%
Serious	-	9	
Moderate	-	16	
Minor/Other	-	32	
Uncategorised	69	-	
Casualty Crashes	53	49	↓ 8%
Casualty Cost:	\$29.80M	\$12.07M	↓ 60%

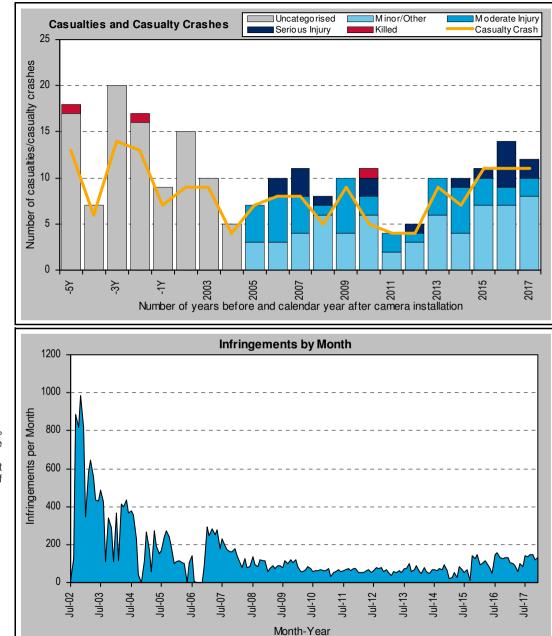
<sup>1</sup> Ending 5 September 2001, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been an 8% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9824 9825: Lindfield - Pacific Highway, between Eton Road and Gladstone Parade

# School zone: Lindfield Primary School

This location is 480m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 9 July 2007.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	9	7	↓ 22%
Serious	2	4	
Moderate	1	0	
Minor/Other	2	3	
Uncategorised	4	-	
Casualty Crashes	8	6	↓ 25%
Casualty Cost:	\$1.91M	\$1.48M	↓ 22%

<sup>1</sup> Ending 9 April 2007, 3 calendar months before installation.

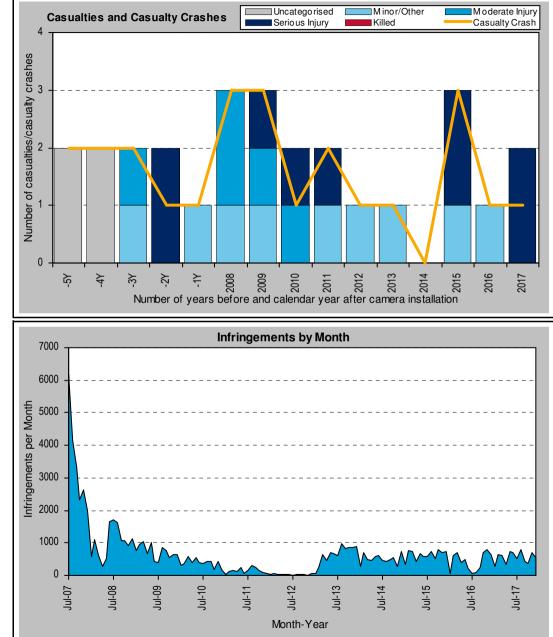
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 25% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The camera was turned off at this location during 2012 due to road works at this location. Roadworks and camera maintenance may influence the number of infringements issued.



## 9821: Liverpool - Bigge Street, between Elizabeth Drive and Campbell Street

### School zone: All Saints Catholic Primary School, All Saints Catholic Girls College, All Saints Catholic Boys College

This location is 360m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 14 November 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	33	15	↓ 55%
Serious	0	5	
Moderate	10	4	
Minor/Other	10	6	
Uncategorised	13	-	
Casualty Crashes	25	13	↓ 48%
Casualty Cost:	\$6.99M	\$3.18M	↓ 55%

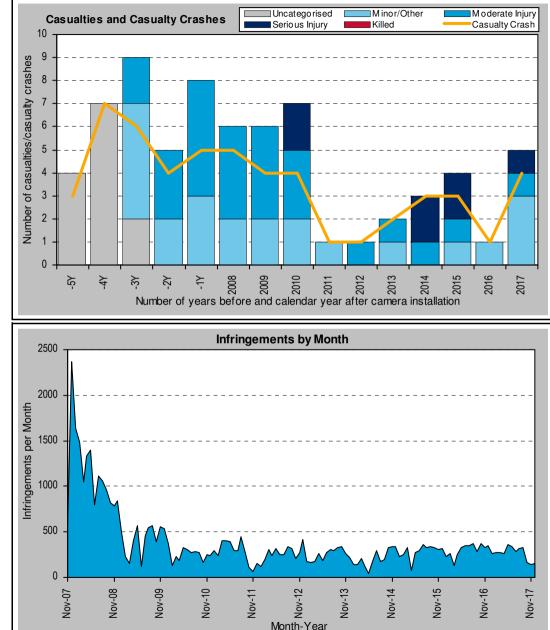
<sup>1</sup> Ending 14 August 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 48% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



## 9636: Lochinvar - New England Highway, between Robert Road and Station Lane

#### School zone: Lochinvar Public School, St Patrick's Primary School, All Saint's College - St Joseph's Campus

This location is 1000m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 9 May 2000.

#### **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	2	4	↑ 60%
Serious	-	3	
Moderate	-	0	
Minor/Other	-	1	
Uncategorised	2	-	
Casualty Crashes	3	2	↓ 47%
Casualty Cost:	\$8.02M	\$0.85M	↓ 92%

<sup>1</sup> Ending 9 February 2000, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

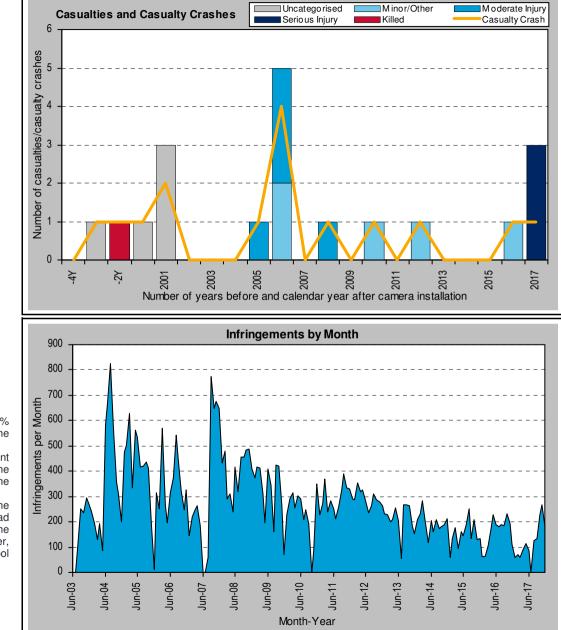
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 47% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is 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. Roadworks and camera maintenance may influence the number of infringements issued.

• This location was reviewed in 2012 due to concerns that casualties had increased slightly. The comprehensive safety review found that since the speed camera was installed, traffic volumes had increased significantly due to mining activities in the Hunter region. Given the increase in traffic volume, the adjusted casualty rate indicated that the speed camera has been effective in reducing casualties. Further, there was strong community support for the retention of the speed camera due to its location in a school zone where safety is a high priority. Therefore the speed camera at this location was retained.



### 9813 9814: Maroubra - Malabar Road, between Mons Avenue and Duncan Street

#### School zone: St Mary and St Joseph's Primary, Maroubra Bay

This location is 680m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 20 June 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	14	12	↓ 14%
Serious	0	2	
Moderate	6	6	
Minor/Other	3	4	
Uncategorised	5	-	
Casualty Crashes	11	9	↓ 18%
Casualty Cost:	\$2.96M	\$2.54M	↓ 14%

<sup>1</sup> Ending 20 March 2007, 3 calendar months before installation.

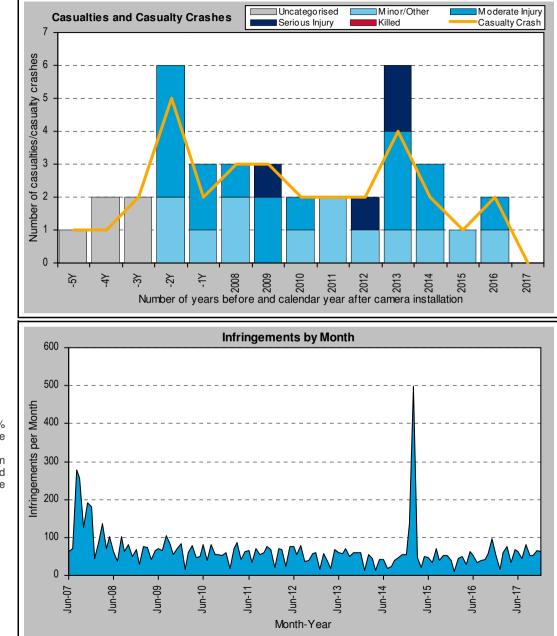
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been an 18% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The spike in infringements in early 2015 is due to a number of infringements having been issued in error. Infringement notices were withdrawn. Roadworks and camera maintenance may influence the number of infringements issued.



## 9582: Mayfield West - Pacific Highway, between Werribee Street and Tourle Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 23 December 2002.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	1	Increase
Total Injuries	52	25	↓ 52%
Serious	-	7	
Moderate	-	5	
Minor/Other	-	13	
Uncategorised	52	-	
Casualty Crashes	38	22	↓ 42%
Casualty Cost:	\$11.01M	\$12.89M	↑ 17%

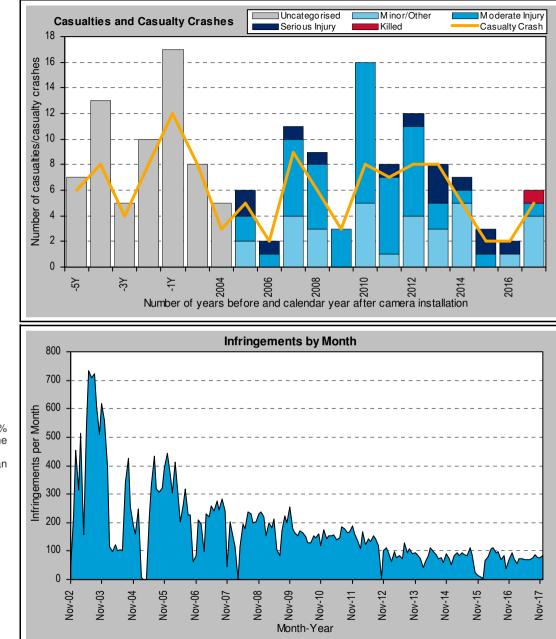
<sup>1</sup> Ending 23 September 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 42% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9810: Merrylands - Merrylands Road, between Chetwynd Road and Davies Street

# School zone: St Margaret Mary's Primary School

This location is 220m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 16 May 2007.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	15	9	↓ 40%
Serious	2	3	
Moderate	5	2	
Minor/Other	1	4	
Uncategorised	7	-	
Casualty Crashes	15	8	↓ 47%
Casualty Cost:	\$18.37M	\$1.91M	↓ 90%

<sup>1</sup> Ending 16 February 2007, 3 calendar months before installation.

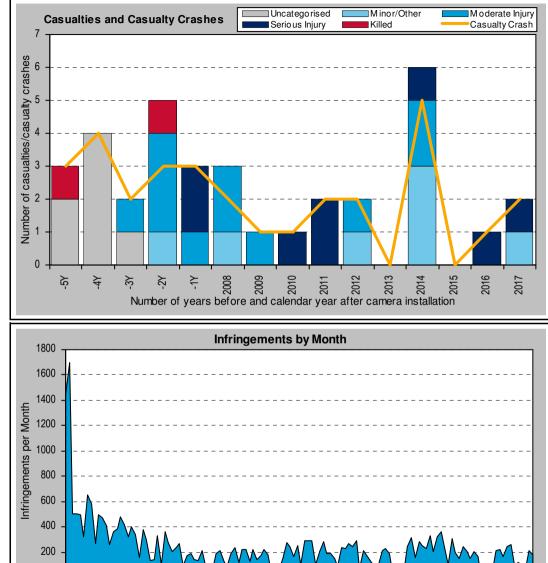
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 47% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.



May-12

Month-Year

May-13

May-14

**May-10** 

May-11

May-09

0

May-07

May-08

May-17

May-15

May-16

### 9833 9834: Miranda - Kingsway, between Sylva Avenue and University Road

#### School zone: Port Hacking High School, Miranda Public School

This location is 400 (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 7 November 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	19	2	↓ 89%
Serious	2	0	
Moderate	6	1	
Minor/Other	3	1	
Uncategorised	8	-	
Casualty Crashes	14	2	↓ 86%
Casualty Cost:	\$4.02M	\$0.42M	↓ 89%

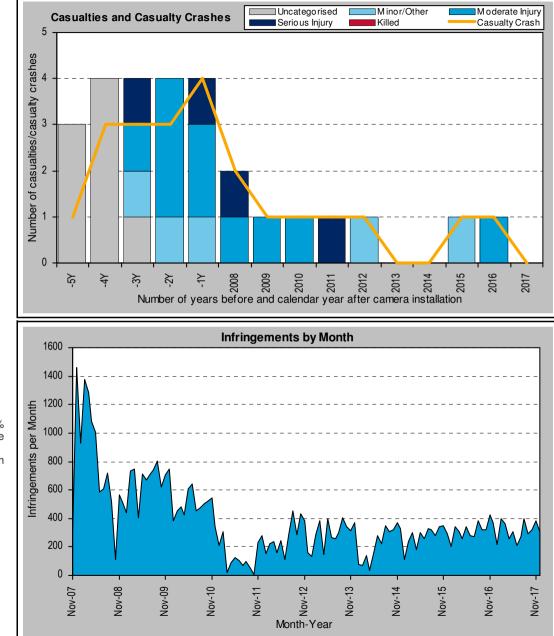
<sup>1</sup> Ending 7 August 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been an 86% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9837 9838: Moore Park - Cleveland Street, between Anzac Parade and South Dowling Street

# School zone: Sydney Boys High School, Sydney Girls High School

This location is 380m (patch to patch) in length, and is enforced by 2 cameras.

- The cameras commenced operating on:
- Camera 1 (eastbound) 14 November 2007
- Camera 2 (westbound) 15 November 2007

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	14	7	↓ 50%
Serious	3	3	
Moderate	1	2	
Minor/Other	5	2	
Uncategorised	5	-	
Casualty Crashes	10	7	↓ 30%
Casualty Cost:	\$2.96M	\$1.48M	↓ 50%

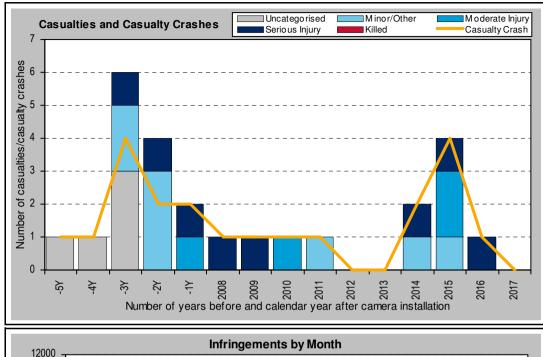
<sup>1</sup> Ending 14 August 2007, 3 calendar months before installation.

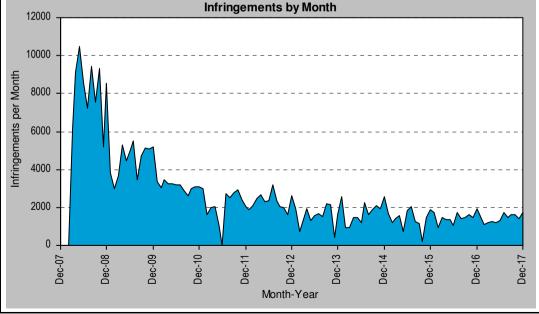
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

## Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 30% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9602: Mosman - Macpherson Street, between Ourimbah Road and Montague Road

## School zone: Middle Harbour Primary School

This location is 320m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 15 July 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	6	2	↓ 67%
Serious	-	0	
Moderate	-	1	
Minor/Other	-	1	
Uncategorised	6	-	
Casualty Crashes	4	2	↓ 50%
Casualty Cost:	\$1.27M	\$0.42M	↓ 67%

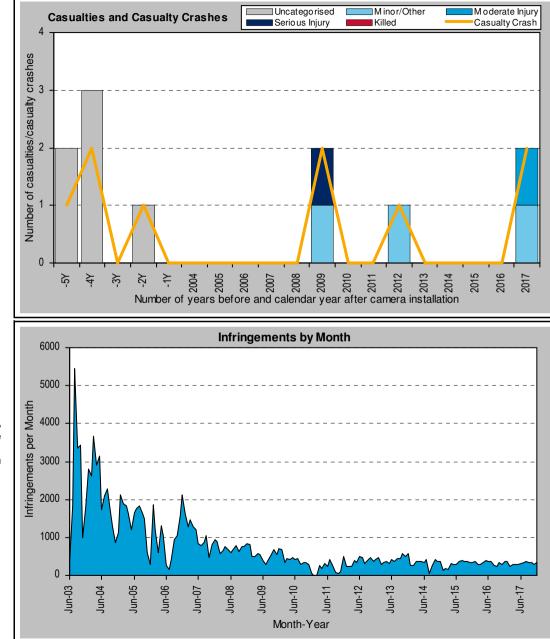
<sup>1</sup> Ending 15 April 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 50% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9666: Mount Victoria - Great Western Highway, between Mitchells Lookout Road and Ambermere Drive

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 25 July 2015.

# **Casualties and Casualty Crashes**

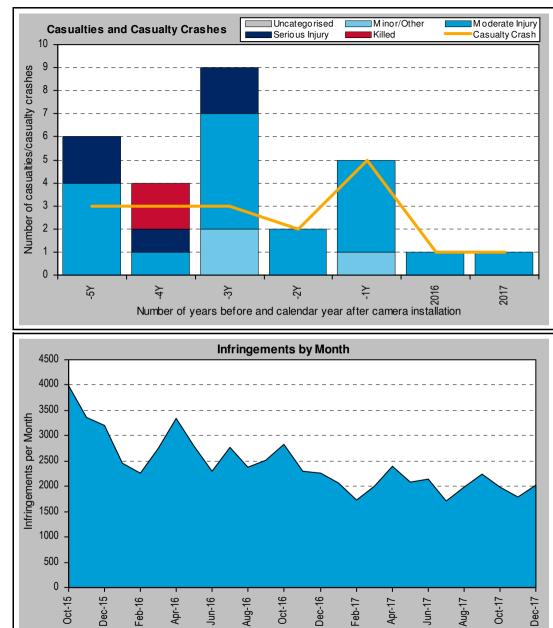
	5 years before	2.44 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	24	4	↓ 66%
Serious	5	0	
Moderate	16	4	
Minor/Other	3	0	
Uncategorised	0	-	
Casualty Crashes	16	3	↓ 62%
Casualty Cost:	\$20.28M	\$0.85M	↓ 91%

<sup>1</sup> Ending 25 April 2015, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

Status : Insufficient data

CRS will develop further commentary when there is additional data available for this location in the future.
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.



Month-Year

## 9826 9827: Narrabeen - Pittwater Road, between Ocean Street and Devitt Street

#### School zone: Narrabeen Lakes Primary School

This location is 300m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 31 October 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	13	9	↓ 31%
Serious	1	5	
Moderate	6	2	
Minor/Other	0	2	
Uncategorised	6	-	
Casualty Crashes	11	9	↓ 18%
Casualty Cost:	\$17.95M	\$1.91M	↓ 89%

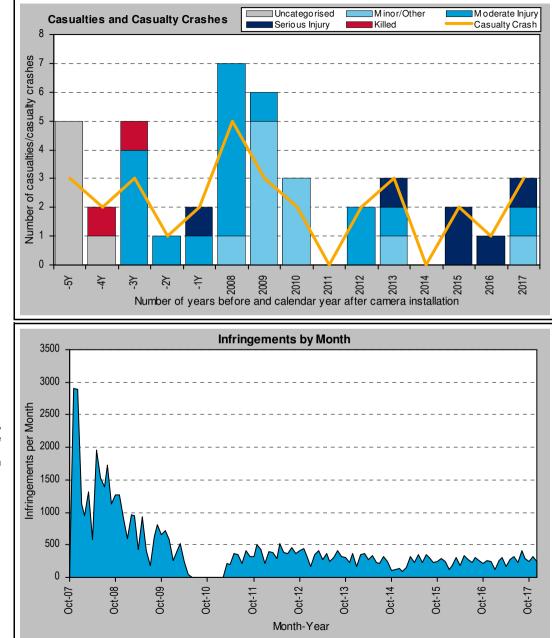
<sup>1</sup> Ending 31 July 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been an 18% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9667: Narraweena - Warringah Road, near the intersection with May Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 14 December 2015.

### **Casualties and Casualty Crashes**

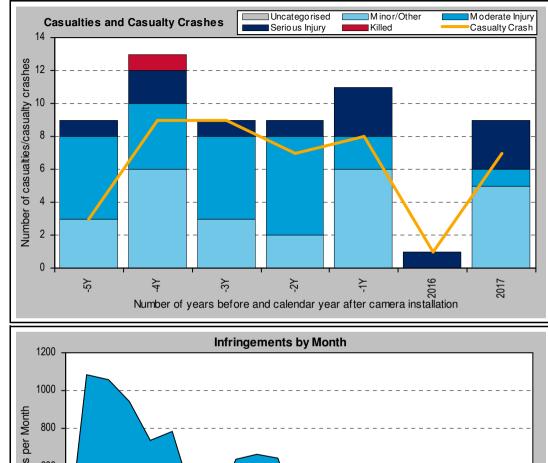
	5 years before	2.05 years	to end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	50	11	↓ 46%
Serious	8	4	
Moderate	22	2	
Minor/Other	20	5	
Uncategorised	0	-	
Casualty Crashes	36	9	↓ 39%
Casualty Cost:	\$18.18M	\$2.33M	↓ 69%

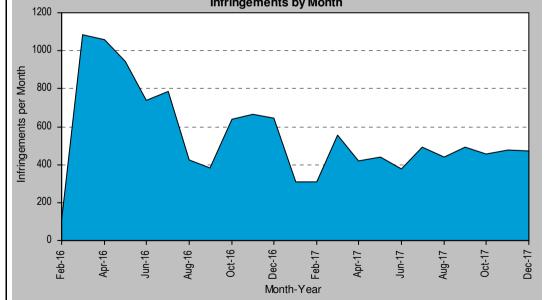
<sup>1</sup> Ending 14 September 2015, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

Status : Insufficient data

CRS will develop further commentary when there is additional data available for this location in the future.
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.





# 9620|9621: New Italy - Pacific Highway, between New Italy Road and Turners Road

This location is 1000m in length, and is enforced by 2 cameras. Both cameras commenced operating on 25 July 2002.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	3	1	↓ 67%
Serious	-	1	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	3	-	
Casualty Crashes	2	1	↓ 50%
Casualty Cost:	\$0.64M	\$0.21M	↓ 67%

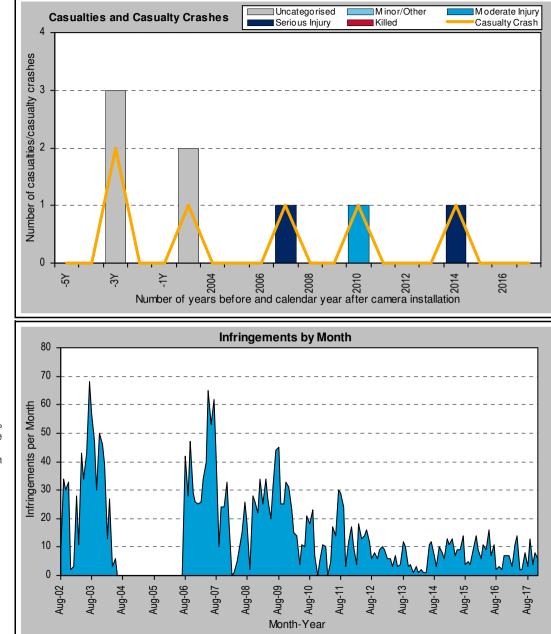
<sup>1</sup> Ending 25 April 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 50% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9583: Nords Wharf - Pacific Highway, between Nords Wharf Road and Flowers Drive

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 27 February 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	2	5	↑ 150%
Serious	-	0	
Moderate	-	2	
Minor/Other	-	3	
Uncategorised	2	-	
Casualty Crashes	2	2	0%
Casualty Cost:	\$0.42M	\$1.06M	↑ 150%

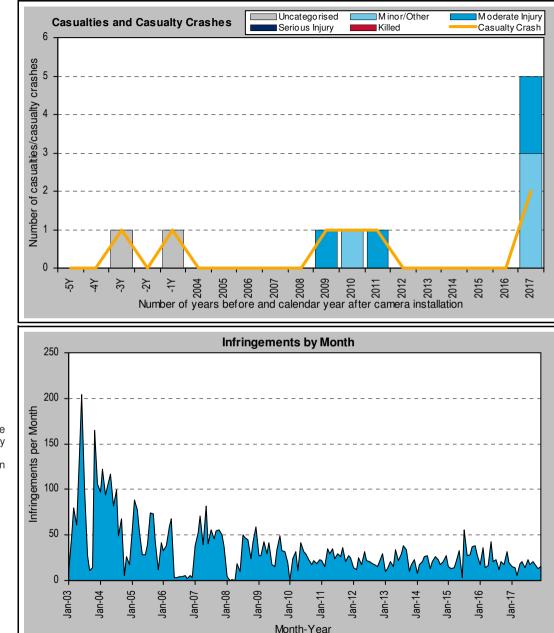
<sup>1</sup> Ending 27 November 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes at this fixed speed camera location. The change in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.



# 9831: North Curl Curl - Harbord Road, between Abbott Road and Brighton Street

#### School zone: Freshwater Senior High School, Manly Selective Campus

This location is 1060m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 31 October 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	26	12	↓ 54%
Serious	4	4	
Moderate	2	3	
Minor/Other	6	5	
Uncategorised	14	-	
Casualty Crashes	21	10	↓ 52%
Casualty Cost:	\$5.50M	\$2.54M	↓ 54%

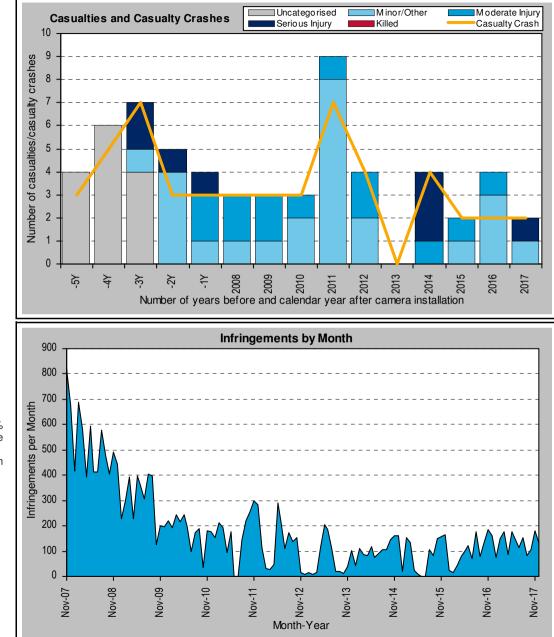
<sup>1</sup> Ending 31 July 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 52% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9665: North Macksville - Pacific Highway, between Bellview Drive and Ferry Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 10 January 2015.

### **Casualties and Casualty Crashes**

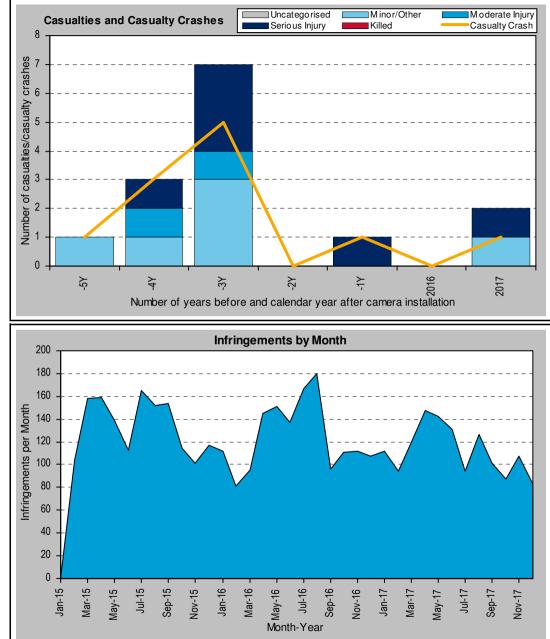
	5 years before	2.97 years	to end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	12	2	↓ 72%
Serious	5	1	
Moderate	2	0	
Minor/Other	5	1	
Uncategorised	0	-	
Casualty Crashes	10	1	↓ 83%
Casualty Cost:	\$2.54M	\$0.42M	↓ 72%

<sup>1</sup> Ending 10 October 2014, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

Status : Insufficient data

CRS will develop further commentary when there is additional data available for this location in the future.
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.



# 9578: North Macksville - Pacific Highway, between Florence Wilmont Drive and Watt Creek

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 3 March 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	3	0	↓ 100%
Total Injuries	12	10	↓ 17%
Serious	-	3	
Moderate	-	4	
Minor/Other	-	3	
Uncategorised	12	-	
Casualty Crashes	6	4	↓ 33%
Casualty Cost:	\$25.34M	\$2.12M	↓ 92%

<sup>1</sup> Ending 3 December 2002, 3 calendar months before installation.

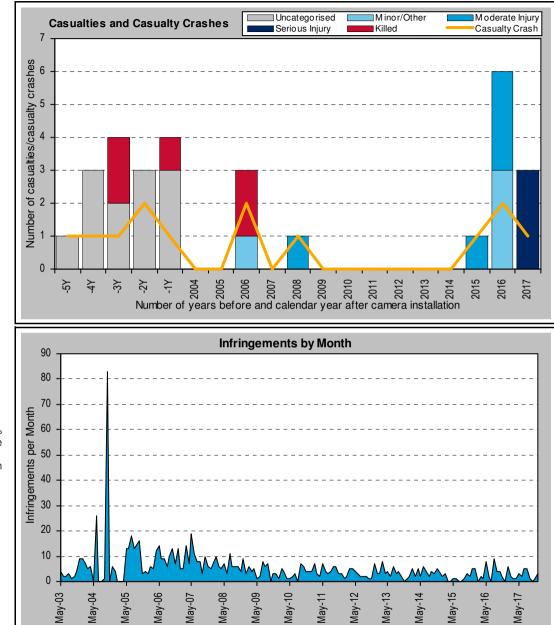
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 33% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.



Month-Year

# 9847 9848: North Narrabeen - Pittwater Road, between Garden Street and Namona Street

# School zone: Narrabeen North Public School, Narrabeen Sports High

This location is 590m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 28 January 2009.

# **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017	
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	12	19	↑ 58%
Serious	0	5	
Moderate	5	7	
Minor/Other	1	7	
Uncategorised	6	-	
Casualty Crashes	9	12	↑ 33%
Casualty Cost:	\$2.54M	\$4.02M	↑ 58%

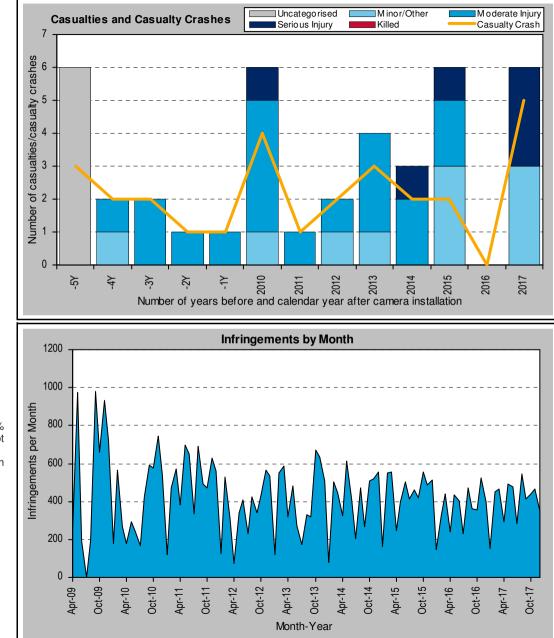
<sup>1</sup> Ending 28 October 2008, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

## Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 33% increase in casualty crashes at this fixed speed camera location. The increase in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.



# 9541: North Parramatta - Pennant Hills Road, between Castle Street and Bellevue Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 30 November 2001.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	17	11	↓ 35%
Serious	-	2	
Moderate	-	3	
Minor/Other	-	6	
Uncategorised	17	-	
Casualty Crashes	13	10	↓ 23%
Casualty Cost:	\$3.60M	\$2.33M	↓ 35%

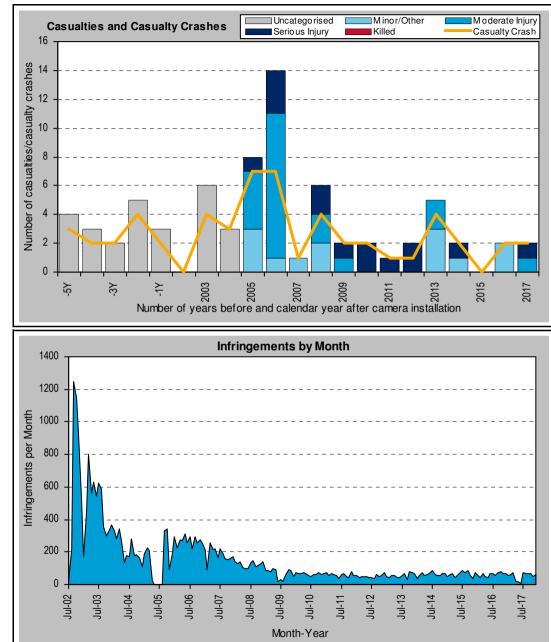
<sup>1</sup> Ending 30 August 2001, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 23% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



### 9657 9658: North Parramatta / Oatlands - Pennant Hills Road, between Masons Drive and Suttor Avenue

School zone: Burnside Public School, The Kings School, Redeemer Baptist School, Garfield Barwick School, American International School, Cumberland High School

This location is 2770m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 10 April 2007.

	5 years before installation <sup>1</sup>	5 years to end 2017	
		Count	Percentage Change <sup>2</sup>
Fatalities	1	2	↑ 100%
Total Injuries	65	40	↓ 38%
Serious	6	14	
Moderate	7	16	
Minor/Other	15	10	
Uncategorised	37	-	
Casualty Crashes	46	30	↓ 35%
Casualty Cost:	\$21.36M	\$23.66M	↑ 11%

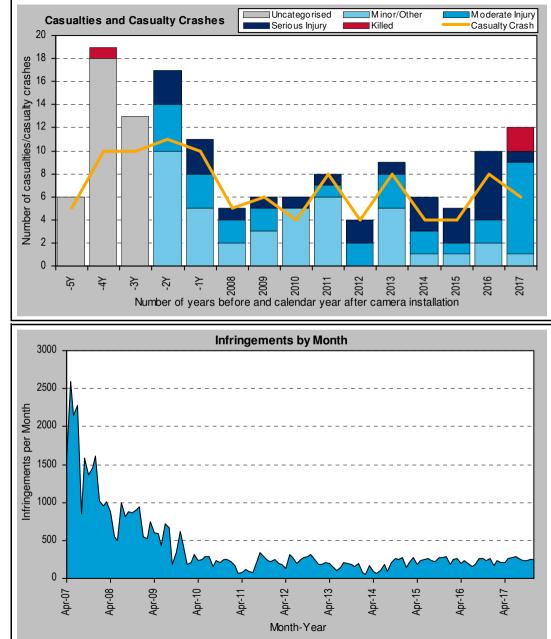
<sup>1</sup> Ending 10 January 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 35% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9639: North Wollongong - Princes Highway, between Ajax Avenue and Exeter Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 13 June 2000.

# **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	50	32	↓ 49%
Serious	-	8	
Moderate	-	9	
Minor/Other	-	15	
Uncategorised	50	-	
Casualty Crashes	31	27	↓ 30%
Casualty Cost:	\$10.58M	\$6.77M	↓ 49%

<sup>1</sup> Ending 13 March 2000, 3 calendar months before installation.

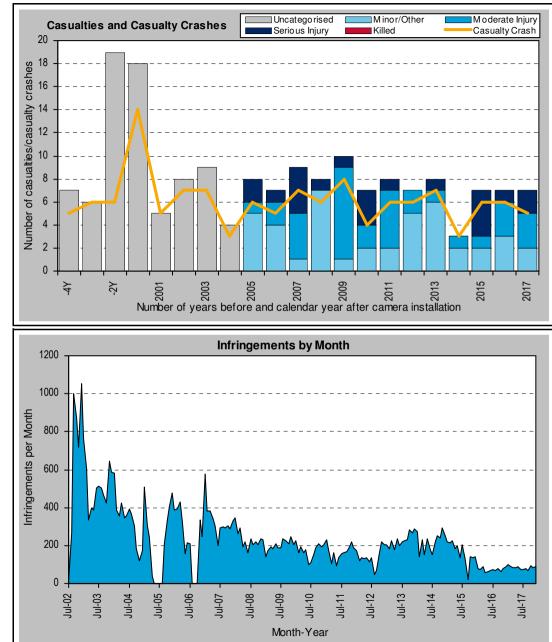
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 30% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



# 9841 9842: Old Guildford - Woodville Road, between Orchardleigh Street and Middleton Road

# School zone: Old Guildford Public School

This location is 370m in length, and is enforced by 2 cameras. Both cameras commenced operating on 30 January 2009.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	1	Increase
Total Injuries	24	16	↓ 33%
Serious	9	5	
Moderate	5	7	
Minor/Other	5	4	
Uncategorised	5	-	
Casualty Crashes	19	10	↓ 47%
Casualty Cost:	\$5.08M	\$10.99M	↑ 116%

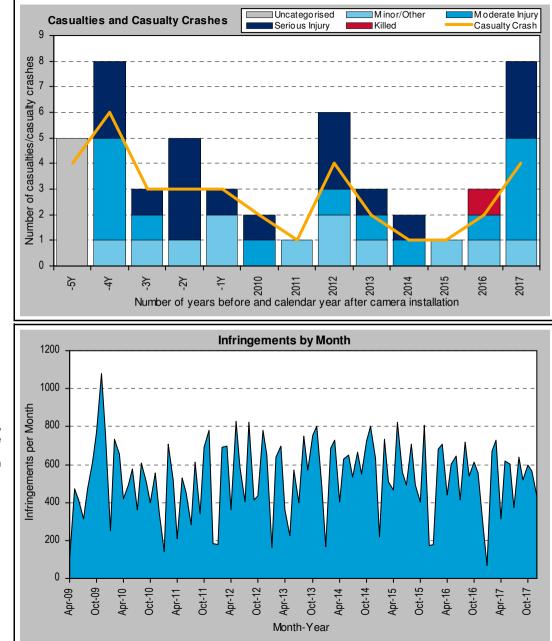
<sup>1</sup> Ending 30 October 2008, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 47% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9535: Ourimbah - M1 Pacific Motorway, between Dogtrap Road Overpass and Ourimbah Creek Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 6 December 2001.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	8	4	↓ 50%
Serious	-	2	
Moderate	-	1	
Minor/Other	-	1	
Uncategorised	8	-	
Casualty Crashes	8	4	↓ 50%
Casualty Cost:	\$9.29M	\$0.85M	↓ 91%

<sup>1</sup> Ending 6 September 2001, 3 calendar months before installation.

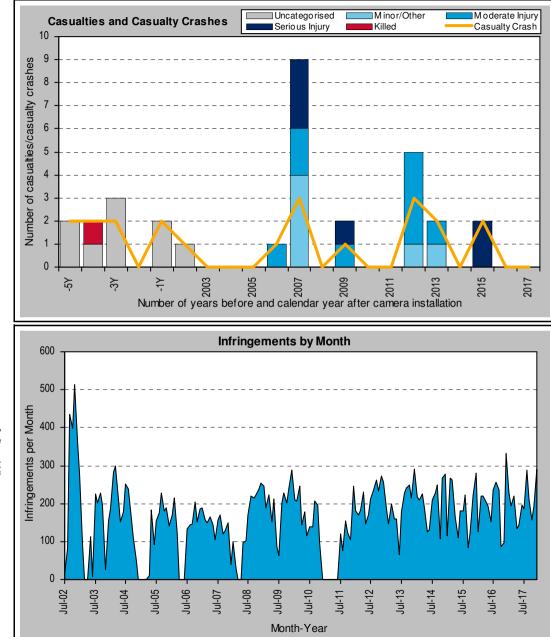
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 50% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



# 9660 9661, 9607: Ourimbah - Pacific Highway, between Yates Road and Dog Trap Road

# School zone: Ourimbah Primary School

This location is 360m (patch to patch) in length, and is enforced by 2 cameras.

- The cameras commenced operating on:
- Camera 1 (northbound) 15 July 2003
- Camera 2 (southbound) 18 February 2008

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	2	0	↓ 100%
Serious	-	0	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	2	-	
Casualty Crashes	2	0	↓ 100%
Casualty Cost:	\$0.42M	\$0	↓ 100%

<sup>1</sup> Ending 15 April 2003, 3 calendar months before installation.

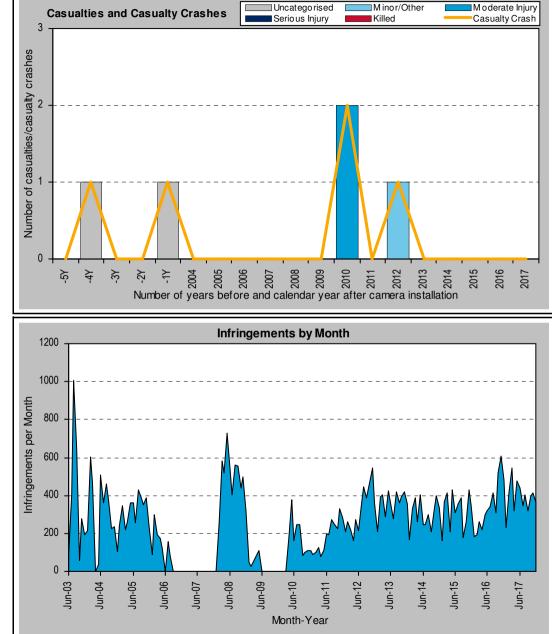
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 100% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The spike in infringements from February 2008 can be attributed to the installation of a second camera at this location, enforcing southbound traffic. The extended period of camera downtime in 2009 and 2010 was due to significant road upgrades. Roadworks and camera maintenance may influence the number of infringements issued.



# 9646: Padstow - Gibson Avenue, between Turvey Street and Bryant Street, Padstow

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 3 July 2000.

# **Casualties and Casualty Crashes**

	4 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	1	↓ 20%
Total Injuries	14	11	↓ 37%
Serious	-	3	
Moderate	-	6	
Minor/Other	-	2	
Uncategorised	14	-	
Casualty Crashes	12	10	↓ 33%
Casualty Cost:	\$10.56M	\$9.93M	↓ 25%

<sup>1</sup> Ending 3 April 2000, 3 calendar months before installation.

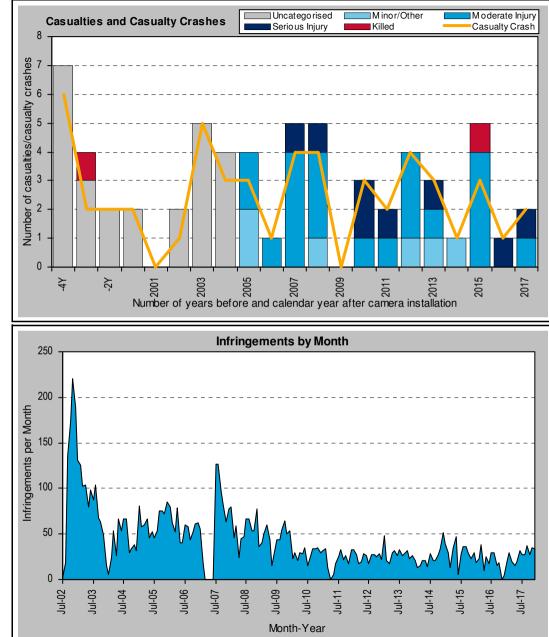
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 33% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



# 9573: Peakhurst - Henry Lawson Drive, between Belmont Road and Ogilvy Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 29 January 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	1	Increase
Total Injuries	24	12	↓ 50%
Serious	-	3	
Moderate	-	4	
Minor/Other	-	5	
Uncategorised	24	-	
Casualty Crashes	17	12	↓ 29%
Casualty Cost:	\$5.08M	\$10.14M	↑ 100%

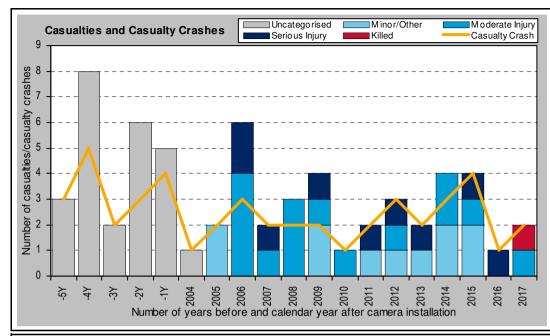
<sup>1</sup> Ending 29 October 2002, 3 calendar months before installation.

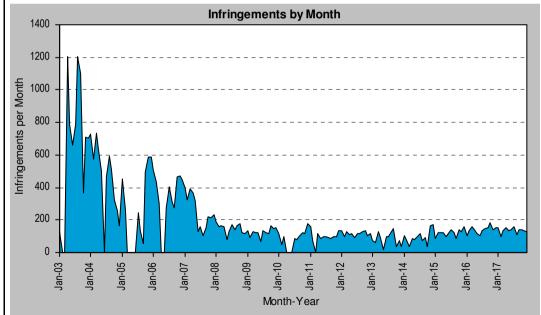
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 29% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9829: Penshurst - Forest Road, between Penshurst Street and St Georges Street

### School zone: Penshurst Girls Campus – Georges River College, Penshurst Public School, St Declan's Primary School

This location is 620m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 17 October 2007.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	1	Increase
Total Injuries	21	20	↓ 5%
Serious	0	5	
Moderate	7	7	
Minor/Other	1	8	
Uncategorised	13	-	
Casualty Crashes	17	14	↓ 18%
Casualty Cost:	\$4.45M	\$11.83M	↑ 166%

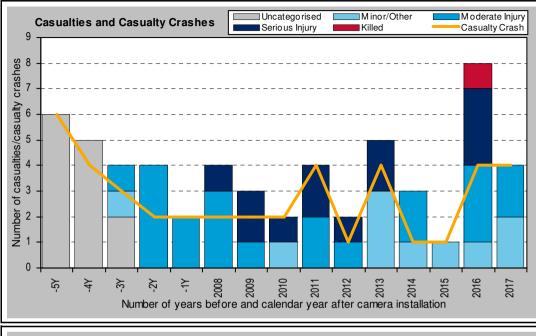
<sup>1</sup> Ending 17 July 2007, 3 calendar months before installation.

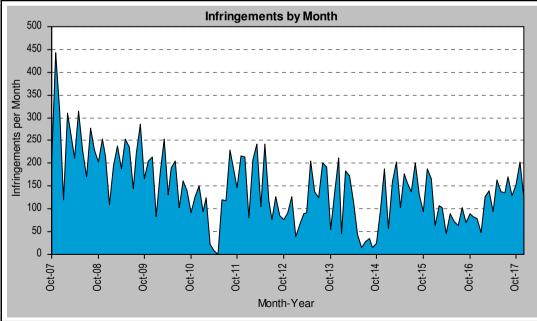
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been an 18% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9644: Picnic Point - Henry Lawson Drive, between Carinya Road and The River Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 16 May 2001.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	6	4	↓ 33%
Serious	-	0	
Moderate	-	4	
Minor/Other	-	0	
Uncategorised	6	-	
Casualty Crashes	5	3	↓ 40%
Casualty Cost:	\$1.27M	\$0.85M	↓ 33%

<sup>1</sup> Ending 16 February 2001, 3 calendar months before installation.

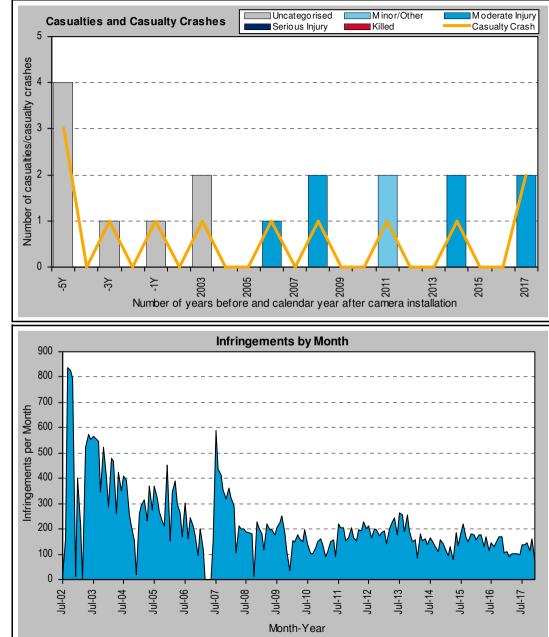
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

# Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 40% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



# 9596: Queanbeyan - Lanyon Drive, between Tompsitt Drive and Hoover Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 2 May 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	1	1	0%
Serious	-	1	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	1	-	
Casualty Crashes	2	1	↓ 50%
Casualty Cost:	\$7.81M	\$0.21M	↓ 97%

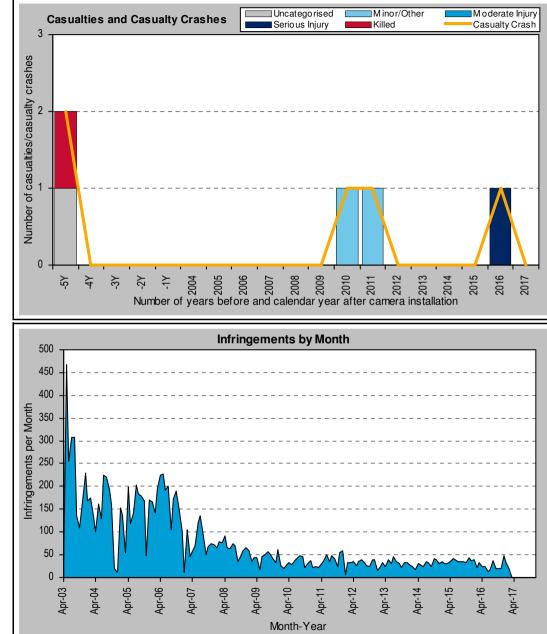
<sup>1</sup> Ending 2 February 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 50% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9815: Randwick - Avoca Street, between Howard Street and Barker Road

#### School zone: Randwick Boys High School, Randwick Girls High School

This location is 560m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 29 June 2007.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	31	25	↓ 19%
Serious	1	4	
Moderate	7	11	
Minor/Other	7	10	
Uncategorised	16	-	
Casualty Crashes	25	19	↓ 24%
Casualty Cost:	\$6.56M	\$5.29M	↓ 19%

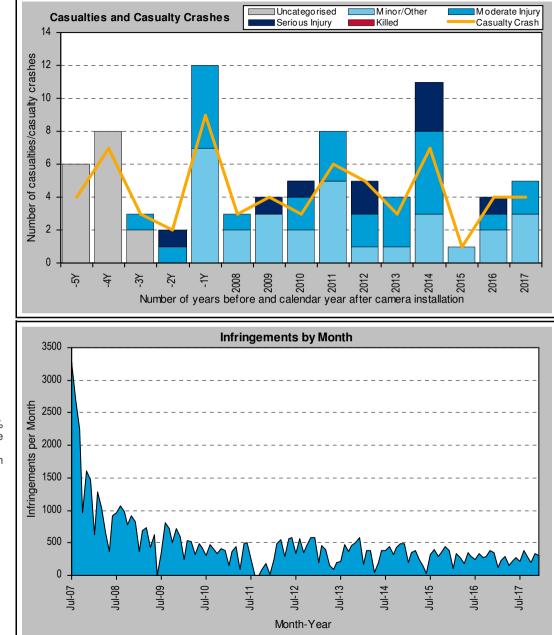
<sup>1</sup> Ending 29 March 2007, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 24% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9586: Rankin Park - McCaffrey Drive, between Duval Street and Orara Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 29 April 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	8	15	↑ 88%
Serious	-	3	
Moderate	-	7	
Minor/Other	-	5	
Uncategorised	8	-	
Casualty Crashes	3	10	↑ <b>233%</b>
Casualty Cost:	\$1.69M	\$3.18M	↑ 88%

<sup>1</sup> Ending 29 January 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

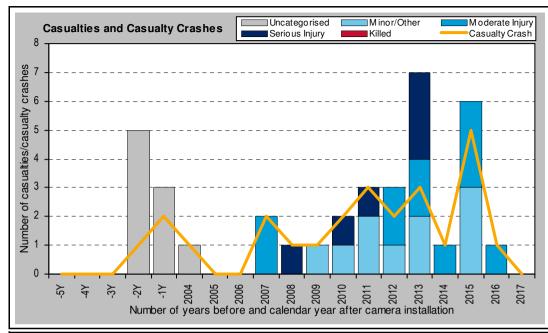
#### Status : Retain

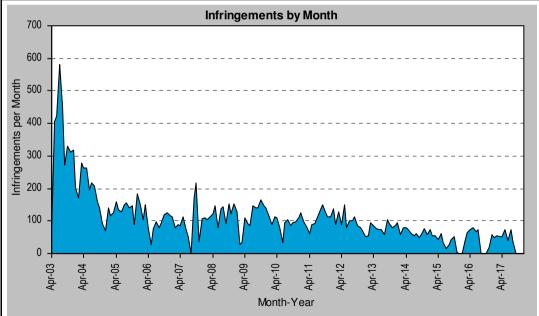
(There has been a statistically significant increase in casualty crashes, however this location has previously been reviewed.)

• When comparing the pre installation period to the most recent five year period, there has been a 233% increase in casualty crashes at this fixed speed camera location. The increase in casualty crashes is statistically significant. The data presented do not account for the prevailing statewide trend.

• 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.

• This location was reviewed in 2013 due to concerns about the increase in casualties in recent years. It was recommended retaining the speed camera at this location following the comprehensive review.





# 9816 9817: Rosebery/Alexandria - Botany Road, between Gardeners Road and Gillespie Street

# School zone: Gardeners Road Public School

This location is 360m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 13 June 2007.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	16	14	↓ 13%
Serious	1	1	
Moderate	3	9	
Minor/Other	1	4	
Uncategorised	11	-	
Casualty Crashes	16	12	↓ 25%
Casualty Cost:	\$3.39M	\$2.96M	↓ 13%

<sup>1</sup> Ending 13 March 2007, 3 calendar months before installation.

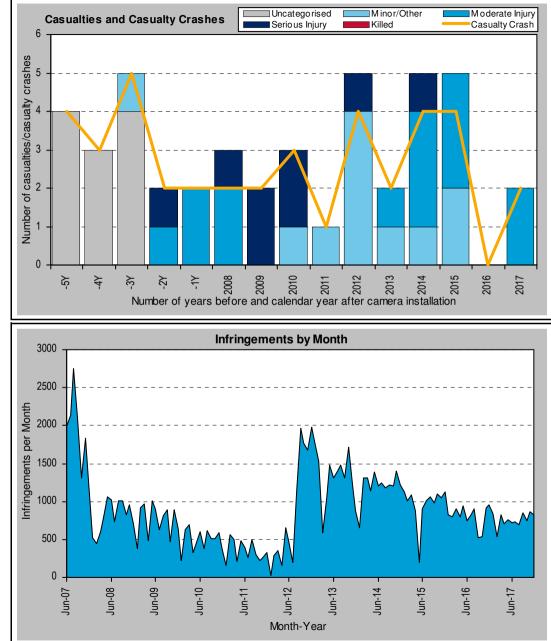
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 25% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The spike in infringements after July 2012 can be attributed to a change in speed limit from 60km/h to 50km/h. Roadworks and camera maintenance may influence the number of infringements issued.



### 9839 9840: Rydalmere - Victoria Road, between Park Road and John Road

#### School zone: Rydalmere Public School

This location is 440m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 28 January 2009.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	3	7	↑ 133%
Serious	0	2	
Moderate	0	3	
Minor/Other	2	2	
Uncategorised	1	-	
Casualty Crashes	3	7	↑ <b>13</b> 3%
Casualty Cost:	\$0.64M	\$1.48M	↑ 133%

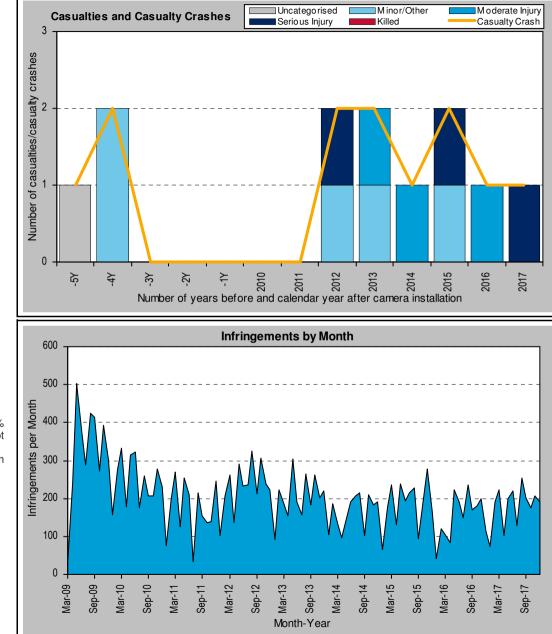
<sup>1</sup> Ending 28 October 2008, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 133% increase in casualty crashes at this fixed speed camera location. The increase in casualty crashes is not statistically significant. The data presented do not account for the prevailing statewide trend.



# 9554: Ryde - Blaxland Road, between Reservoir Lane and North Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 24 June 2002.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	31	23	↓ 26%
Serious	-	5	
Moderate	-	10	
Minor/Other	-	8	
Uncategorised	31	-	
Casualty Crashes	25	18	↓ 28%
Casualty Cost:	\$14.16M	\$4.87M	↓ 66%

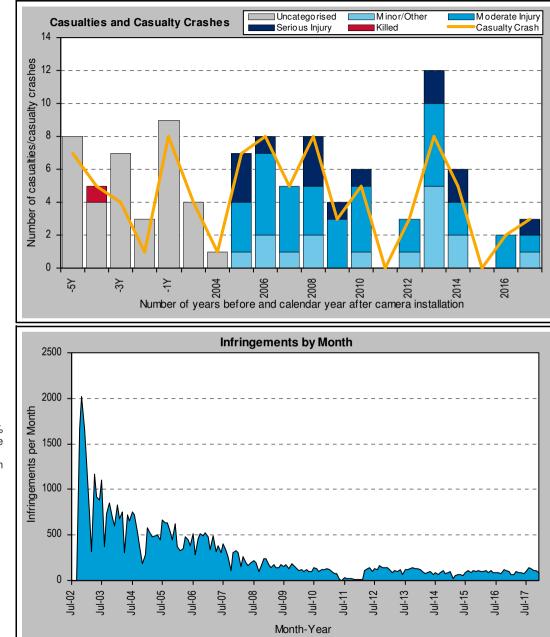
<sup>1</sup> Ending 24 March 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 28% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9835 9836: Ryde - Victoria Road, between Margaret Street and Cressy Road

#### School zone: Holy Cross College Ryde, St Charles School Ryde

This location is 570m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 14 November 2007.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	20	11	↓ 45%
Serious	4	3	
Moderate	2	1	
Minor/Other	4	7	
Uncategorised	10	-	
Casualty Crashes	16	11	↓ 31%
Casualty Cost:	\$4.23M	\$2.33M	↓ 45%

<sup>1</sup> Ending 14 August 2007, 3 calendar months before installation.

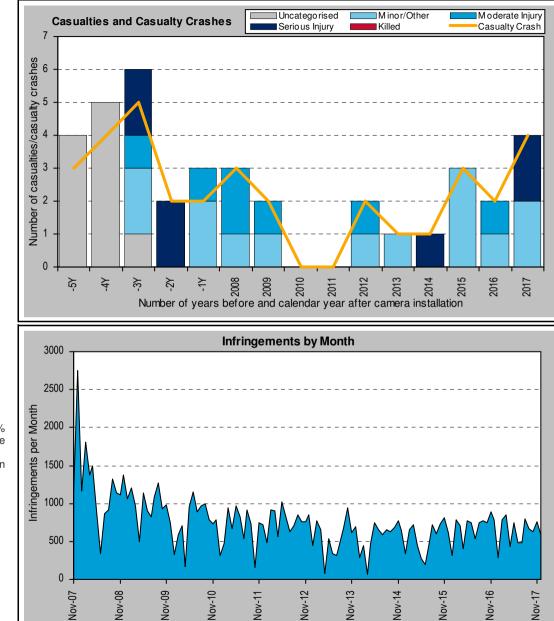
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 31% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• 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.



Month-Year

# 9580|9581: Sandgate - Pacific Highway, between Wallsend Road and Ironbark Creek

This location is 1000m in length, and is enforced by 2 cameras.

- The cameras commenced operating on:
- Camera 1 (northbound) 14 January 2003
- Camera 2 (southbound) 23 April 2003

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	22	15	↓ 32%
Serious	-	5	
Moderate	-	6	
Minor/Other	-	4	
Uncategorised	22	-	
Casualty Crashes	22	14	↓ 36%
Casualty Cost:	\$12.26M	\$3.18M	↓ 74%

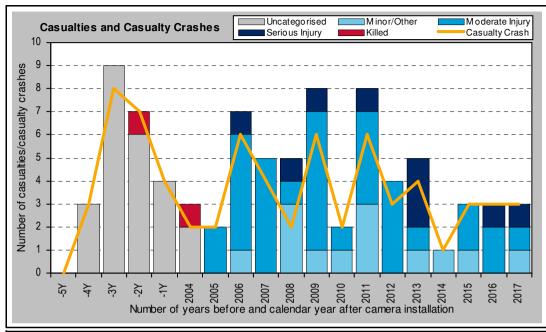
<sup>1</sup> Ending 14 October 2002, 3 calendar months before installation.

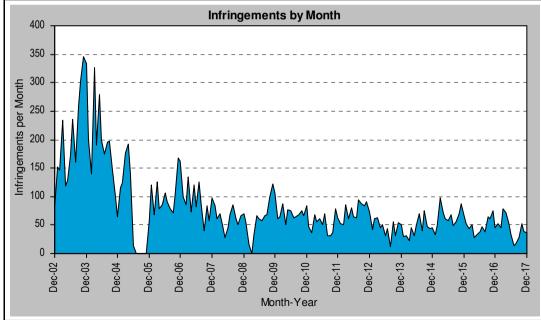
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

# Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 36% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9547: South Windsor - George Street, between Rickaby Street and Yarrawonga Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 30 November 2001.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	23	18	↓ 22%
Serious	-	4	
Moderate	-	10	
Minor/Other	-	4	
Uncategorised	23	-	
Casualty Crashes	15	14	↓7%
Casualty Cost:	\$4.87M	\$3.81M	↓ 22%

<sup>1</sup> Ending 30 August 2001, 3 calendar months before installation.

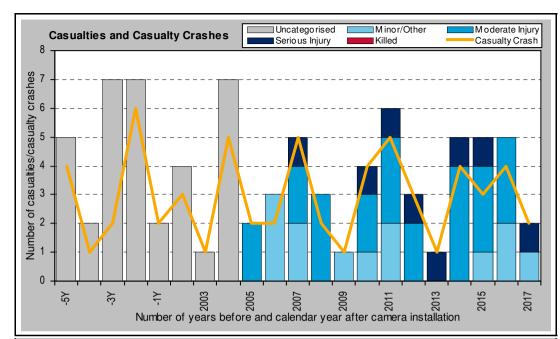
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

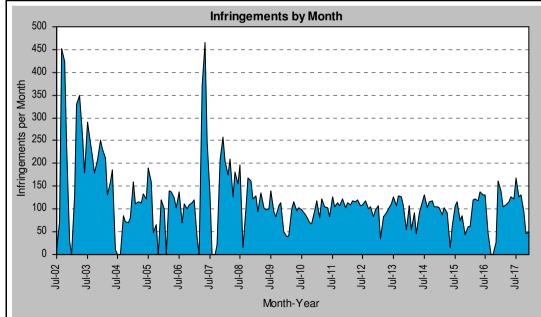
### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 7% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is 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 only. Roadworks and camera maintenance may influence the number of infringements issued.





# 9849: Strathfield - The Boulevarde, between Torrington Parade and Russell Street

### School zone: Trinity Grammar Preparatory School, Santa Sabina College, Santa Maria Del Monte, Meridan Senior and Junior

This location is 1010m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 4 February 2009.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	42	27	↓ 36%
Serious	6	6	
Moderate	11	12	
Minor/Other	11	9	
Uncategorised	14	-	
Casualty Crashes	32	25	↓ 22%
Casualty Cost:	\$8.89M	\$5.72M	↓ 36%

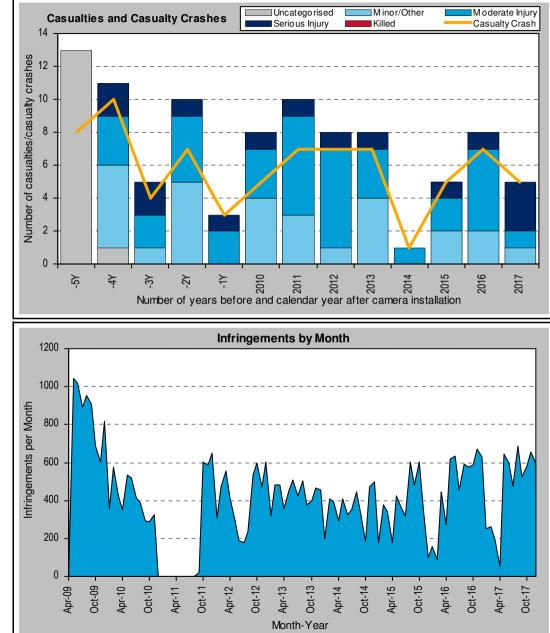
<sup>1</sup> Ending 4 November 2008, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 22% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9568 |: Tenterfield - New England Highway, between Duncan Street and George Street

This location is 1000m in length, and is enforced by 2 cameras. Both cameras commenced operating on 3 October 2002.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	9	0	↓ 100%
Serious	-	0	
Moderate	-	0	
Minor/Other	-	0	
Uncategorised	9	-	
Casualty Crashes	6	0	↓ 100%
Casualty Cost:	\$17.10M	\$0	↓ 100%

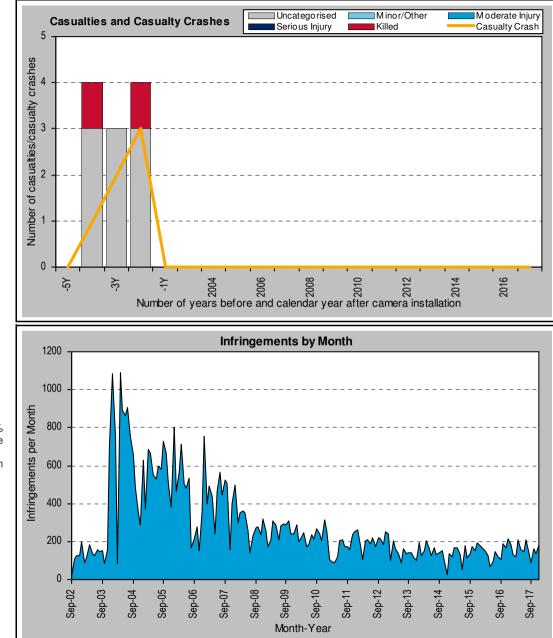
<sup>1</sup> Ending 3 July 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

# Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 100% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9587: Terrigal - Terrigal Drive, between Brunswick Road and Bellbird Avenue

#### School zone: Terrigal High School

This location is 585m in length, and is enforced with one camera. The camera commenced operating on 27 February 2003.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	1	0	↓ 100%
Total Injuries	28	9	↓ 68%
Serious	-	1	
Moderate	-	5	
Minor/Other	-	3	
Uncategorised	28	-	
Casualty Crashes	22	6	↓ 73%
Casualty Cost:	\$13.53M	\$1.91M	↓ 86%

<sup>1</sup> Ending 27 November 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Ineligible

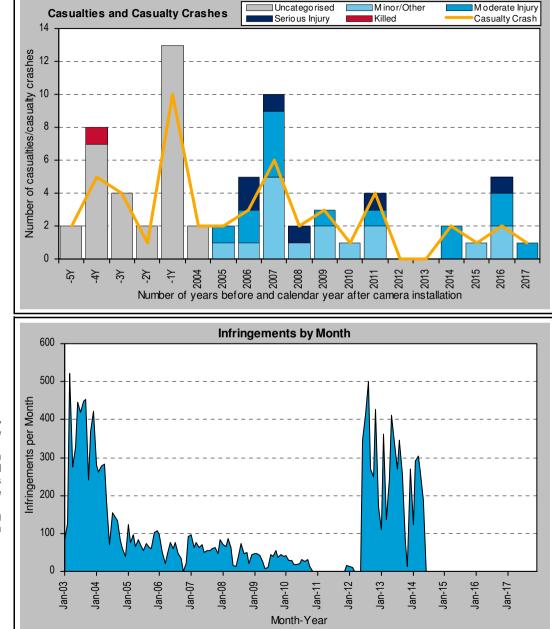
(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 73% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The extended period of camera downtime from December 2010 to June 2012 was due to road works. The subsequent spike in infringements in June 2012 may be attributed to a change in speed limit as the area became a school zone in March 2012. Roadworks and camera maintenance may influence the number of infringements issued.

• In 2014, major road safety and traffic works commenced at this location. The camera and accompanying signage has been removed. The location will be reviewed now that works are complete and a final decision will be made about the need for ongoing enforcement.

• For the 2017 Annual Review, this location was analysed as a School Zone.



# 9802|9803: Toongabbie - Fitzwilliam Road, between Reynolds Street and Binalong Road

# School zone: Toongabbie Public School

This location is 590m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 16 May 2007.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	8	6	↓ 25%
Serious	2	2	
Moderate	1	2	
Minor/Other	3	2	
Uncategorised	2	-	
Casualty Crashes	7	6	↓ 14%
Casualty Cost:	\$1.69M	\$1.27M	↓ 25%

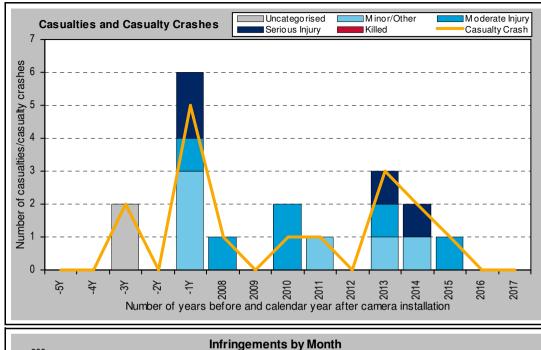
<sup>1</sup> Ending 16 February 2007, 3 calendar months before installation.

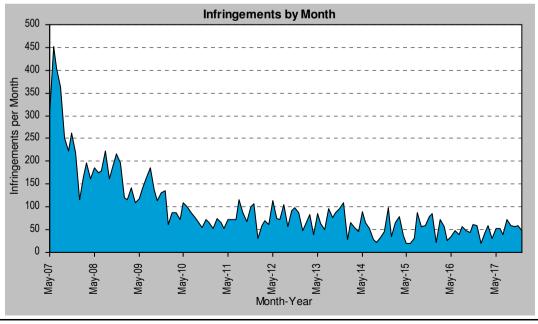
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 14% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9538 |: Valla Beach - Pacific Highway, between Valla Beach Road and Oyster Creek

This location is 1000m in length, and is enforced by 2 cameras. Both cameras commenced operating on 5 February 2002.

### **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	6	3	↓ 50%
Serious	-	0	
Moderate	-	2	
Minor/Other	-	1	
Uncategorised	6	-	
Casualty Crashes	5	2	↓ 60%
Casualty Cost:	\$1.27M	\$0.64M	↓ 50%

<sup>1</sup> Ending 5 November 2001, 3 calendar months before installation.

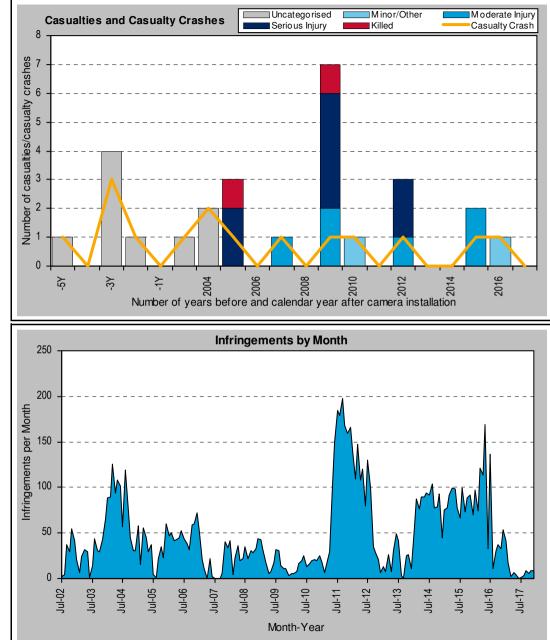
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Ineligible

(There is currently a review underway at this location.)

• When comparing the pre installation period to the most recent five year period, there has been a 60% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. The spike in infringements from May 2011 can be attributed to the speed limit changing from 100km/h to 80km/h. The speed limit was changed due to the poor safety record of this section of the Pacific Highway. Following an adjustment period, the graph shows there has been a reduction in speeding from the end of 2012. Roadworks and camera maintenance may influence the number of infringements issued.



# 9548: Valley Heights - Great Western Highway, between The Valley Road and Sun Valley Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 29 April 2002.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	2	0	↓ 100%
Total Injuries	22	12	↓ 45%
Serious	-	6	
Moderate	-	3	
Minor/Other	-	3	
Uncategorised	22	-	
Casualty Crashes	14	9	↓ 36%
Casualty Cost:	\$19.85M	\$2.54M	↓ 87%

<sup>1</sup> Ending 29 January 2002, 3 calendar months before installation.

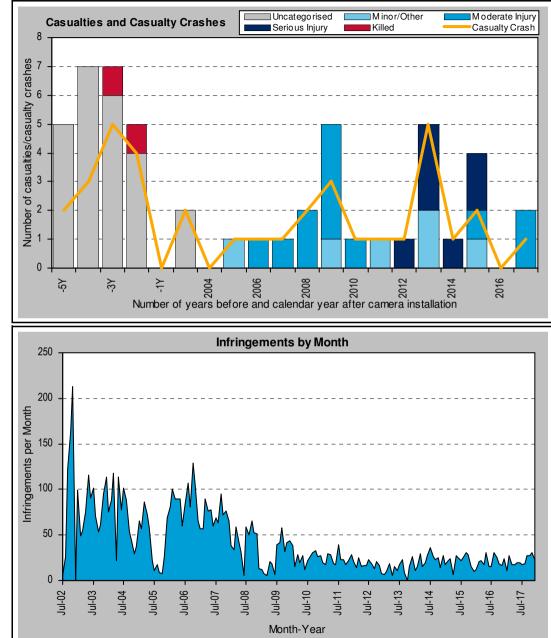
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

# Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 36% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.



# 9843 9844: Wahroonga - Pacific Highway, between Gilda Avenue and Woodville Avenue

# School zone: Warrawee Public School, Knox Grammar, Abbotsleigh Senior Campus

This location is 1960m (patch to patch) in length, and is enforced by 2 cameras. Both cameras commenced operating on 28 January 2009.

# **Casualties and Casualty Crashes**

	5 years before	5 years to	end 2017
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>
Fatalities	0	0	-
Total Injuries	73	58	↓ 21%
Serious	10	9	
Moderate	25	24	
Minor/Other	23	25	
Uncategorised	15	-	
Casualty Crashes	53	52	↓ 2%
Casualty Cost:	\$15.45M	\$12.28M	↓ 21%

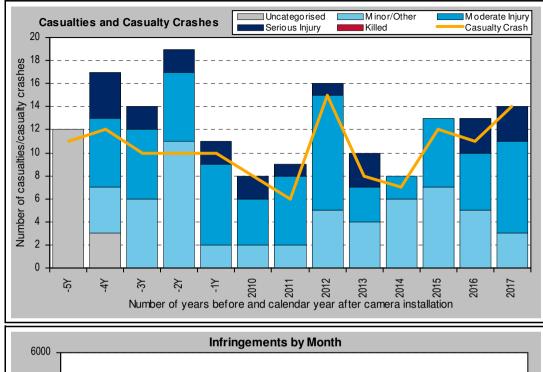
<sup>1</sup> Ending 28 October 2008, 3 calendar months before installation.

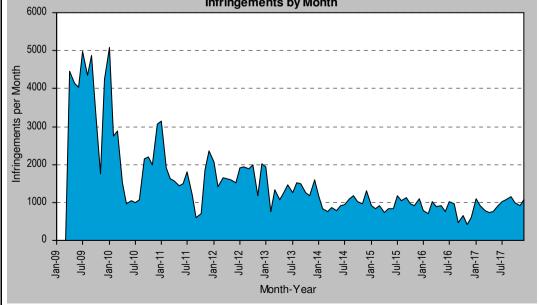
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 2% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9570: Wardell - Pacific Highway, between Coolgardie Road and Fitzroy Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 24 February 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	0	0	-		
Total Injuries	14	3	↓ 79%		
Serious	-	0			
Moderate	-	2			
Minor/Other	-	1			
Uncategorised	14	-			
Casualty Crashes	7	2	↓ 71%		
Casualty Cost:	\$2.96M	\$0.64M	↓ 79%		

<sup>1</sup> Ending 24 November 2002, 3 calendar months before installation.

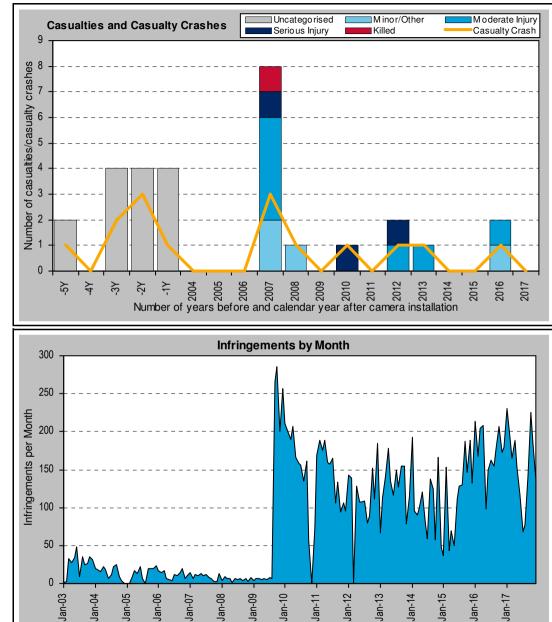
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 71% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The spike in infringements in September 2009 can be attributed to the speed limit changing from 100km/h to 80km/h. Roadworks and camera maintenance may influence the number of infringements issued.



Month-Year

# 9592: Warrawong - Northcliffe Drive, between Griffin Street and Kully Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 1 May 2003.

### **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	0	0	-		
Total Injuries	15	6	↓ 60%		
Serious	-	1			
Moderate	-	3			
Minor/Other	-	2			
Uncategorised	15	-			
Casualty Crashes	11	6	↓ 45%		
Casualty Cost:	\$3.18M	\$1.27M ↓ 60%			

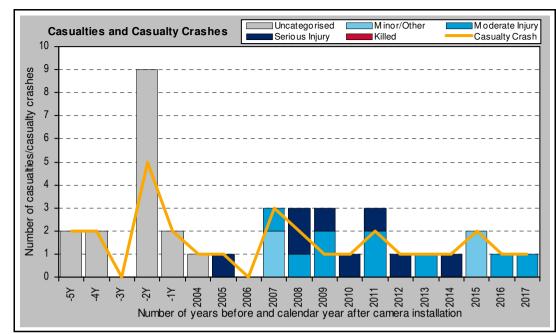
<sup>1</sup> Ending 1 February 2003, 3 calendar months before installation.

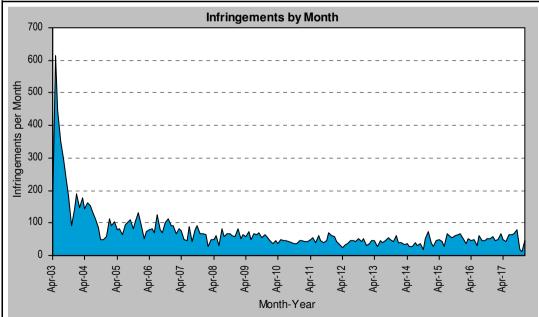
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 45% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9560: West Pennant Hills - Castle Hill Road, between Pennant Hills Road and Coonara Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 18 July 2002.

# **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	2	0	↓ 100%		
Total Injuries	17	4	↓ 76%		
Serious	-	0			
Moderate	-	1			
Minor/Other	-	3			
Uncategorised	17	-			
Casualty Crashes	17	4	↓ 76%		
Casualty Cost:	\$18.80M	\$0.85M	↓ 95%		

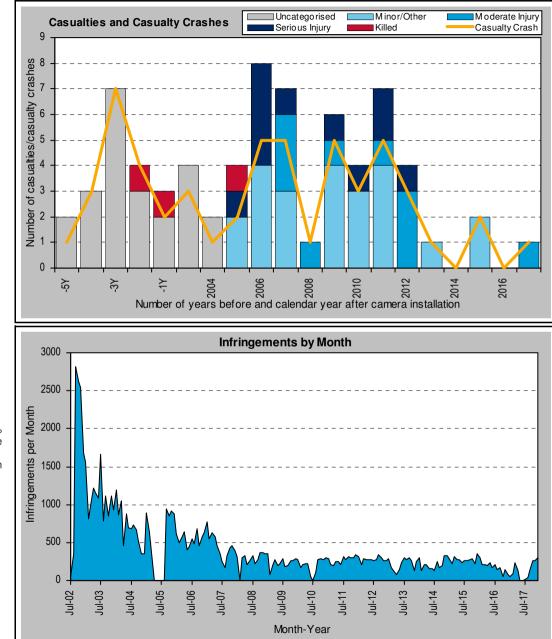
<sup>1</sup> Ending 18 April 2002, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

# Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 76% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9571: Wollongbar - Bruxner Highway, between Convernys Lane and McLeans Ridges Road

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 24 February 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	1	0	↓ 100%		
Total Injuries	7	3	↓ 57%		
Serious	-	1			
Moderate	-	2			
Minor/Other	-	0			
Uncategorised	7	-			
Casualty Crashes	7	2	↓ 71%		
Casualty Cost:	\$9.08M	\$0.64M	↓ 93%		

<sup>1</sup> Ending 24 November 2002, 3 calendar months before installation.

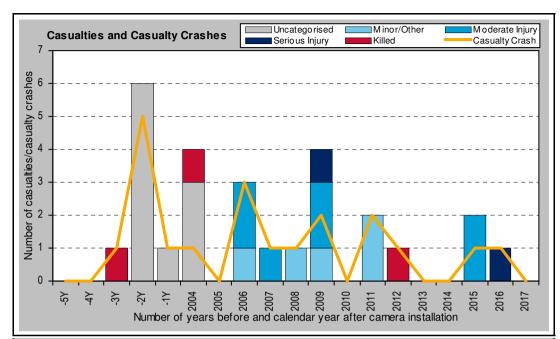
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

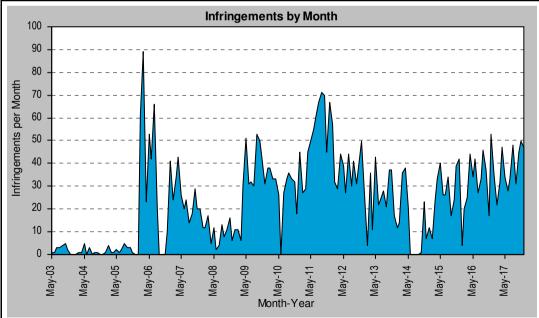
# Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 71% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since the camera began operating. The spike in infringements in February 2006 can be attributed to the speed limit changing from 100km/h to 80km/h. The spike in infringements in April 2009 can be attributed to when the camera switched to bi-directional enforcement where it previously enforced in one direction. Roadworks and camera maintenance may influence the number of infringements issued.





# 9610: Wollongong - Princes Highway, between Mount Keira Road and Highway Avenue

# School zone: Illawarra Grammar School, Wollongong West Public School, St Theresa Primary School

This location is 620m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 15 July 2003.

# **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	0	0	-		
Total Injuries	19	13	↓ 32%		
Serious	-	4			
Moderate	-	3			
Minor/Other	-	6			
Uncategorised	19	-			
Casualty Crashes	15	12	↓ 20%		
Casualty Cost:	\$4.02M	\$2.75M ↓ 32%			

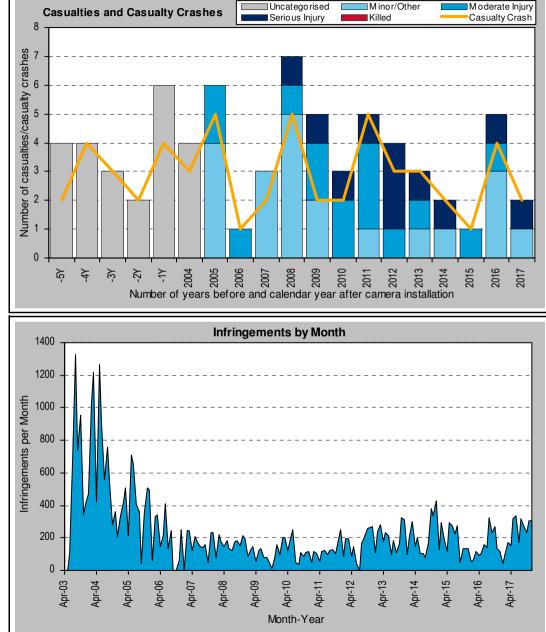
<sup>1</sup> Ending 15 April 2003, 3 calendar months before installation.

<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 20% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.



# 9648: Woodburn - Pacific Highway, between Sussex Street and Richmond Street

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 20 March 2001.

### **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	2	0	↓ 100%		
Total Injuries	8	1	↓ 88%		
Serious	-	0			
Moderate	-	0			
Minor/Other	-	1			
Uncategorised	8	-			
Casualty Crashes	5	1	↓ 80%		
Casualty Cost:	\$16.89M	\$0.21M	↓ 99%		

<sup>1</sup> Ending 20 December 2000, 3 calendar months before installation.

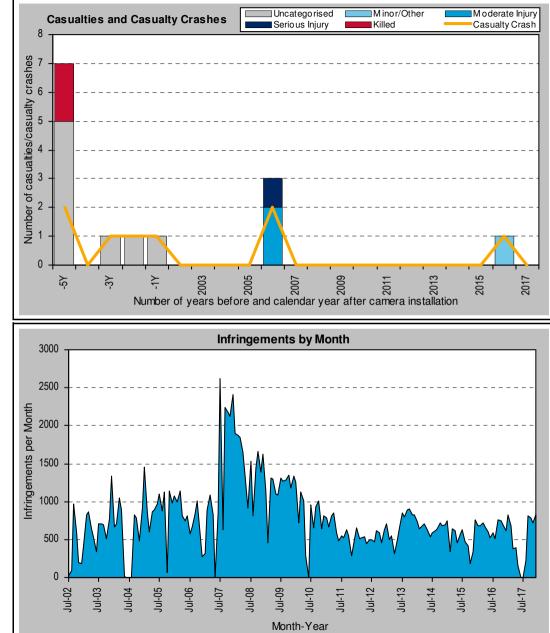
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been an 80% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. The spike in infringements in June 2007 may be attributed to the speed limit changing from 60km/h to 50km/h. Following this spike, infringements again reduced and have remained at a consistent level at this location. Roadworks and camera maintenance may influence the number of infringements issued.



# 9606: Wyoming - Henry Parry Drive, between Glennie Street and Dwyer Street

#### School zone: Our Lady of the Rosary Primary School

This location is 230m (patch to patch) in length, and is enforced with one camera. The camera commenced operating on 15 July 2003.

#### **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	0	0	-		
Total Injuries	12	5	↓ 58%		
Serious	-	0			
Moderate	-	3			
Minor/Other	-	2			
Uncategorised	12	-			
Casualty Crashes	8	4	↓ 50%		
Casualty Cost:	\$2.54M	\$1.06M ↓ 58%			

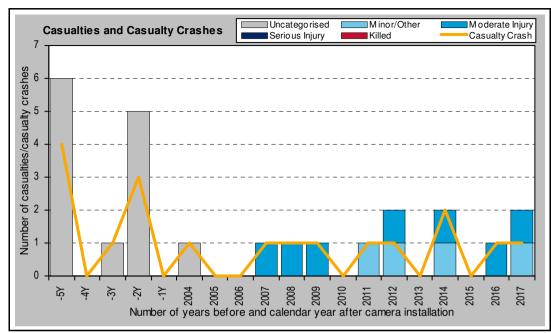
<sup>1</sup> Ending 15 April 2003, 3 calendar months before installation.

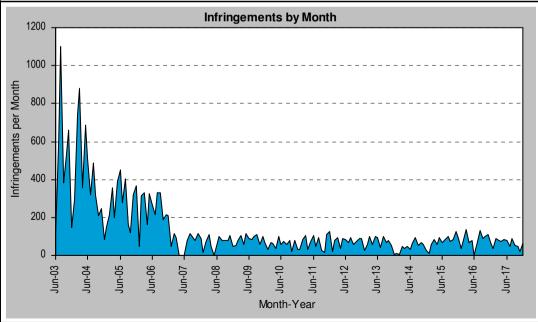
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 50% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.





# 9542: Yagoona - Hume Highway, between Smith Street and Brennan Avenue

This location is 1000m in length, and is enforced with one camera. The camera commenced operating on 7 December 2001.

### **Casualties and Casualty Crashes**

	5 years before	5 years to end 2017			
	installation <sup>1</sup>	Count	Percentage Change <sup>2</sup>		
Fatalities	2	0	↓ 100%		
Total Injuries	74	49	↓ 34%		
Serious	-	10			
Moderate	-	19			
Minor/Other	-	20			
Uncategorised	74	-			
Casualty Crashes	42	32	↓ 24%		
Casualty Cost:	\$30.86M	\$10.37M	↓ 66%		

<sup>1</sup> Ending 7 September 2001, 3 calendar months before installation.

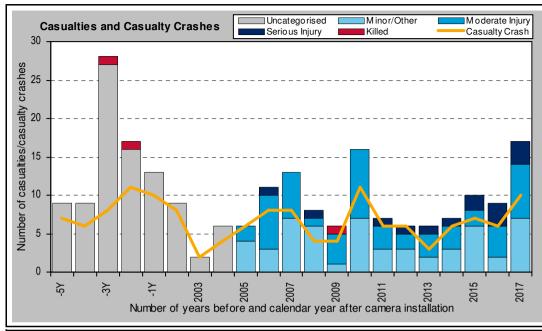
<sup>2</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.

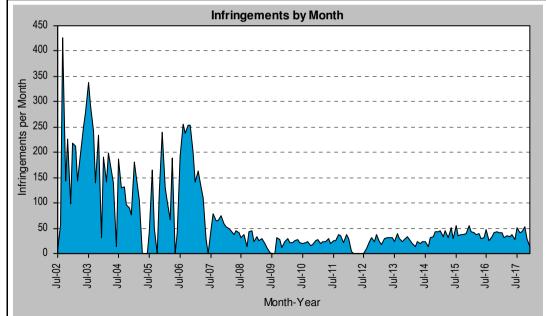
#### Status : Retain

(There has been no increase in casualty crashes.)

• When comparing the pre installation period to the most recent five year period, there has been a 24% decrease in casualty crashes at this fixed speed camera location. The data presented do not account for the prevailing statewide trend.

• The infringement graph details the trend in infringements at this location since July 2002. Infringement data before this date is not available. Roadworks and camera maintenance may influence the number of infringements issued.





# A. NSW fixed speed cameras

# A.3 Fixed speed camera locations with the most infringements

In April 2013, NRMA Motoring & Services called for an assessment of all high infringing speed camera locations across the state to determine whether the cameras were appropriately placed and clearly signposted.

The NSW Centre for Road Safety (CRS) has identified the 10 fixed speed camera locations with the highest number of infringements detected in 2017, detailed in the table overleaf. Cameras in high-risk locations are excluded.

The 10 speed camera locations are on main roads with high traffic volumes. None of the 10 highest infringing fixed speed camera locations were identified in this review for review or ongoing monitoring.

All camera locations had high compliance rates with more than 99 per cent of drivers passing the cameras without being infringed for speeding. This demonstrates that most drivers are aware of the cameras and do not exceed the speed limit, with less than one per cent of drivers penalised. It is this high level of compliance that provides road safety benefits. Compliance data compares the number of vehicles that pass a camera with the number of infringements issued by the camera.

CRS will continue to monitor infringement numbers at camera locations to identify and address any ongoing road safety risks. As is the case currently, Roads and Maritime Services (RMS) may increase the warning letter period and/or use Variable Message Signs to increase driver awareness of speed camera locations, where the trend in warning letters or number of infringements issued deems this appropriate. Ongoing site maintenance is also conducted by RMS to ensure that signage is effectively placed and not obscured by roadside objects, such as trees.

	Location (commencement date)	Number of cameras	Infringements (Total: 2016)	Infringements (Total: 2017)	Compliance rate <i>(2017)</i>
1	Mount Victoria - Great Western Highway (July, 2015)	1	30,977	24,143	99.40%
2	Moore Park - Cleveland Street between Anzac parade and South Dowling Street (school zone) (November, 2007)	2	17,552	17,220	99.52%
3	Ewingsdale - Pacific Highway, between St Helena Road and Ewingsdale Road (September, 2006)	1	16,153	14,816	99.49%
4	Wahroonga - Pacific Highway between Gilda Avenue and Woodville Avenue (school zone) (January, 2009)	2	9,215	11,439	99.94%
5	Kogarah - Princes Highway, between Gray Street and President Avenue (school zone) (July, 2003)	2	9,423	10,159	99.96%
6	Rosebery/Alexandria - Botany Road, between Gardeners Road and Gillespie Street (school zone) (June, 2007)	2	9,688	9,108	99.88%
7	Ryde - Victoria Road, between Margaret Street and Cressy Road (school zone) (November, 2007)	2	8,190	7,543	99.88%
8	Gwynneville - M1 Princes Motorway, between Northern Distributor Overpass and Gipps Road Overpass (Northbound) (August, 2003)	1	7,881	7,774	99.86%
9	East Gardens/Maroubra, Bunnerong Road between Fitzgerald Avenue and Smith Street (school zone) (June 2007)	2	6,090	6,791	99.96%
10	Lindfield - Pacific Highway, between Eton Road and Gladstone Parade (school zone) (July, 2007)	2	5,001	6,711	99.96%

# Fixed speed camera locations with the most infringements

# A. NSW fixed speed cameras

# A.4 Fixed speed cameras operating in warning mode

Following the results of the 2011 audit of speed cameras, the then Minister for Roads and Freight directed the deactivation of fixed speed cameras that were found to not be delivering the expected road safety benefit at 38 locations.

However, cameras at seven of locations remain in warning mode following reviews by the Centre for Road Safety and safety concerns expressed by the community.

These seven warning mode locations are not included in the detailed analysis provided earlier within this appendix. Crash and infringement results for 2017 are instead provided overleaf.

# A.5 'Three strikes' warning scheme

These seven cameras began operating in warning mode at different times, starting from August 2011. By July 2012, cameras at all seven locations commenced operating under a 'three strike' scheme where vehicle owners receive an infringement notice on the third speeding offence at any of the seven locations. Vehicles detected speeding more than 30km/h over the speed limit receive a court attendance notice and face significant penalties.

The table overleaf shows that there is a significant decrease in the number of warning notices from the issuing of a first warning notice, to the second warning notice and subsequent infringement notice for a third strike.

		Casualty crashes and casualties 2017				Warning letters and infringements issued under '3 strikes' program				Court attendance notices issued			
Location (commencement date)	No. of cameras	Fatalities	Serious injuries	Moderate injuries	Minor / other injuries	Casualty crashes	1 <sup>st</sup> warning letter	2 <sup>nd</sup> warning letter	3 <sup>rd</sup> speeding offence (infringement issued)	Total number of warning letters and infringements	Vehicles speeding >30km/h	Vehicles speeding >45km/h	Total number of notices issued
1. Bangalow Road, Clunes (August 2011)	1	0	0	0	0	0	4,110	442	227	4,779	247	42	289
2. Spit Road, Mosman / Beauty Point (June 2012)	2	0	0	1	3	4	1,515	139	52	1,706	10	2	12
3. Carlingford Road, North Epping (school zone) (June 2012)	1	0	0	0	0	0	1,247	160	81	1,488	6	4	10
4. Pacific Highway, Urunga (January 2012)	1	0	0	0	0	0	2,997	357	166	3,520	41	27	68
5. President Avenue, Gymea (school zone) (August 2011)	1	0	0	0	1	1	1,943	252	105	2,300	42	39	81
6. Eastern Valley Way, North Willoughby (July 2012)	1	0	0	0	2	2	420	39	17	476	4	0	4
7. Eastern Arterial Road, Gordon (June 2012)	1	0	1	0	0	1	1,217	131	37	1,385	11	1	12
Totals:	8	0	1	1	6	8	13,449	1,520	685	15,654	361	115	476

# Performance at fixed speed camera locations operating in warning mode (2017)

# A. NSW fixed speed cameras

## A.6 Fixed speed cameras at high risk locations

There are fixed speed cameras in place at the following high risk locations:

	Location	Cameras	Road
1	Bardwell Park / Arncliffe	2	M5 Motorway
2	Darlinghurst	2	Eastern Distributor
3	Lane Cove	2	Lane Cove Tunnel
4	Sydney	2	Sydney Harbour Tunnel
5	Woolloomooloo / East Sydney	2	Cross City Tunnel
	Total:	10	

These cameras were generally installed when the tunnel was constructed, therefore no pre-installation data are available for these high risk locations. Recommendations are not provided for these high risk locations.

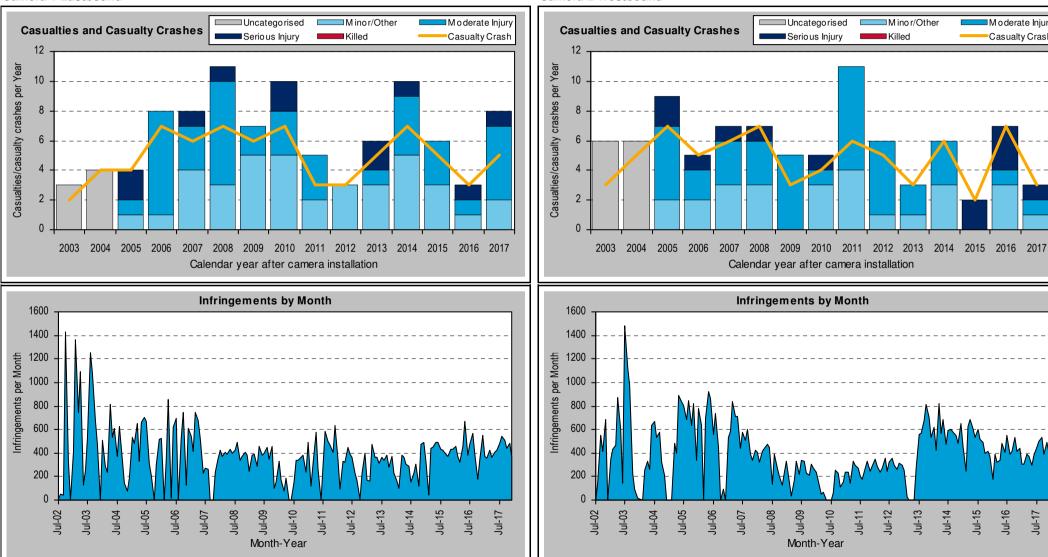
Crash and infringement data are presented on pages A110 – A114.

### Bardwell Park/Arncliffe - M5 Motorway

This is a high risk location that is enforced with fixed speed cameras, because it is difficult for the NSW Police to enforce. The length of each enforced direction is:

- Camera 1 (eastbound) 3975m
- Camera 2 (westbound) 3965m

The cameras commenced operating on 1 August 2002.



#### Camera 1 Eastbound

A110

Jul-15

Jul-16

Jul-17

Moderate Iniurv

Casualty Crash

- In the eastbound direction, there were 5 casualty crashes in the 2017 data. This resulted in 1 serious injury, 5 moderate injuries, and 2 minor injuries.
- In the westbound direction, there were 3 casualty crashes in the 2017 data. This resulted in 1 serious injury, 1 moderate injury, and 1 minor injury.

• The infringement graphs show the number of infringements issued at this location by direction, as well as the trend in infringements. Roadworks and camera maintenance may influence the number of infringements issued.

## Camera 2 Westbound

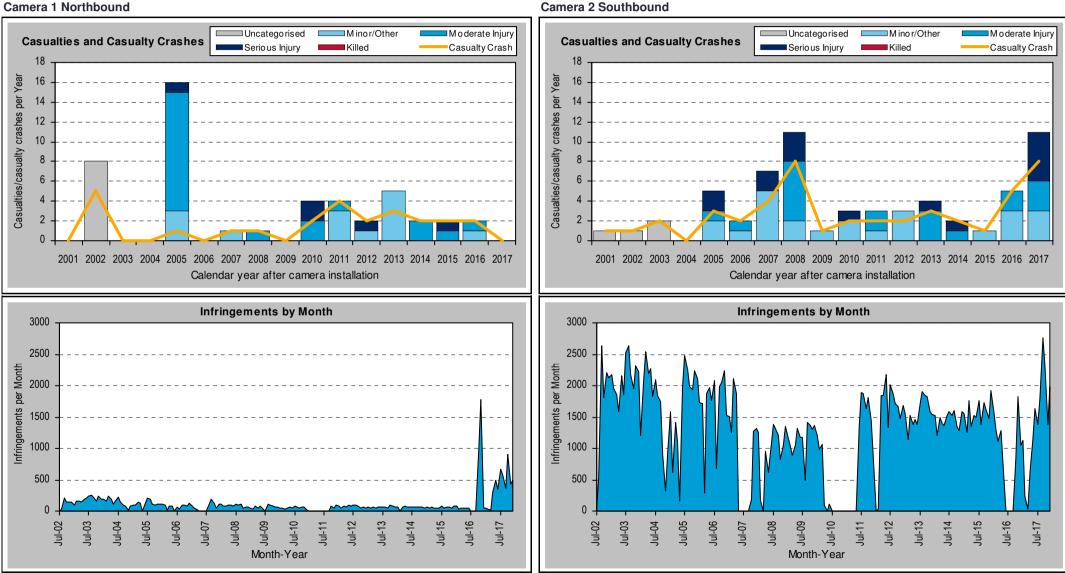
### **Darlinghurst - Eastern Distributor**

This is a high risk location that is enforced with fixed speed cameras, because it is difficult for the NSW Police to enforce. This location is 1645m in length, and the two cameras commenced operating on:

- Camera 1 (Northbound) 30 November 2000
- Camera 2 (Southbound) 30 November 2000

- In the northbound direction, there were no casualty crashes in the 2017 data.
- In the southbound direction, there were 8 casualty crashes in the 2017 data. This resulted in 5 serious injuries, 3 moderate injuries, and 3 minor injuries.

• The infringement graphs show the number of infringements issued at this location by direction, as well as the trend in infringements. Roadworks and camera maintenance may influence the number of infringements issued.



### Camera 1 Northbound

### Lane Cove - Lane Cove Tunnel

This is a high risk location that is enforced with fixed speed cameras, because it is difficult for the NSW Police to enforce. The length of each enforced direction is:

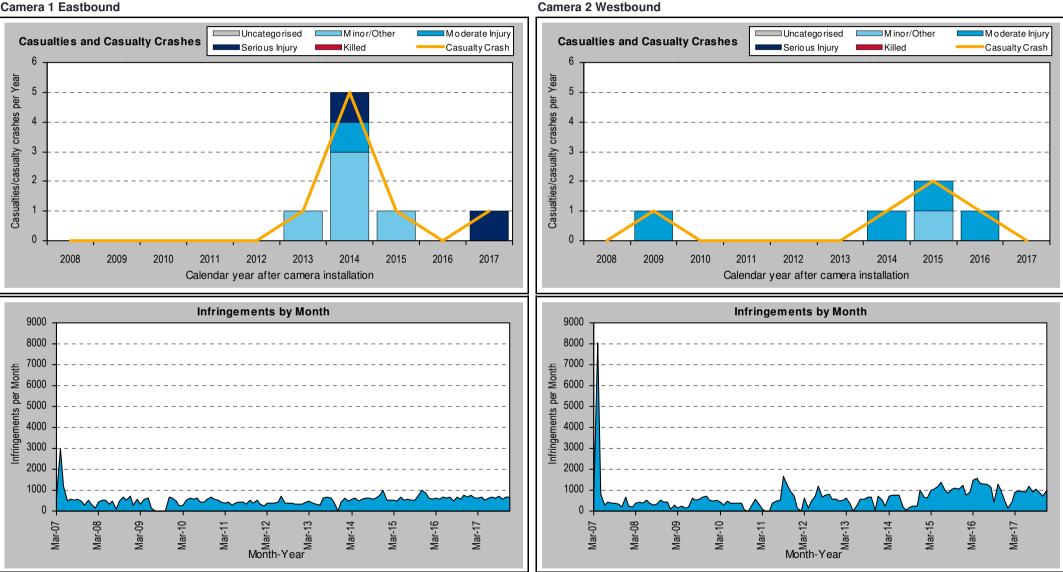
- Camera 1 (eastbound) 3610m
- Camera 2 (westbound) 3615m

The cameras commenced operating on 25 March 2007.

• In the eastbound direction, there was 1 casualty crash in the 2017 data. This resulted in 1 serious injury.

• In the westbound direction, there were no casualty crashes in the 2017 data.

• The infringement graphs show the number of infringements issued at this location by direction, as well as the trend in infringements. Roadworks and camera maintenance may influence the number of infringements issued.



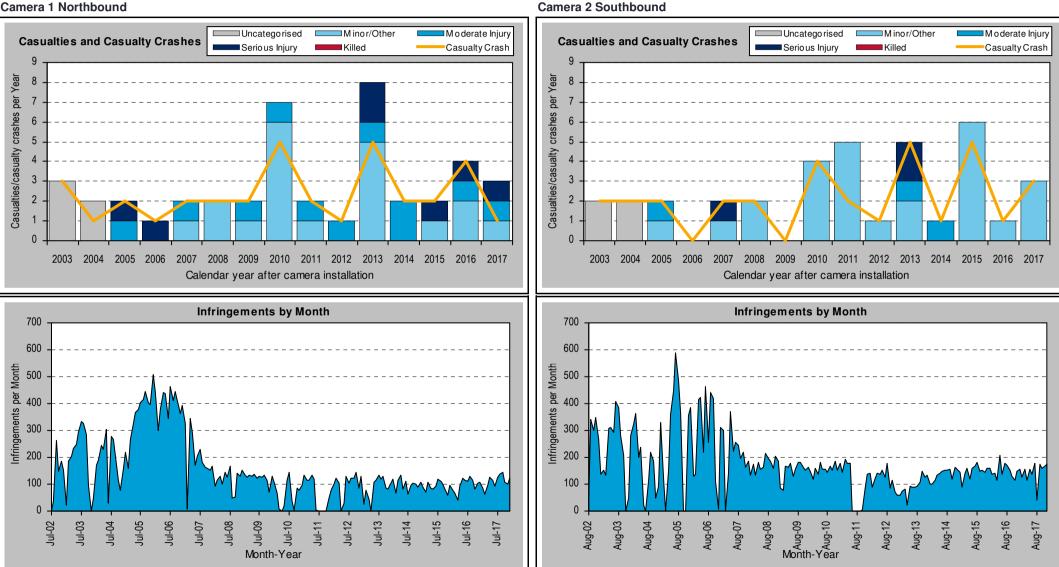
#### Camera 1 Eastbound

### Sydney - Sydney Harbour Tunnel

This is a high risk location that is enforced with fixed speed cameras, because it is difficult for the NSW Police to enforce. The length of each enforced direction is:

- Camera 1 (northbound) 2295m
- Camera 2 (southbound) 2295m

The cameras commenced operating on 2 August 2002.



### Camera 1 Northbound

Annual NSW Speed Camera Review 2018 - Appendix A: Fixed Speed Cameras (High Risk)

• In the northbound direction, there was 1 casualty crash in the 2017 data. This resulted in 1 serious injury, 1 moderate injury, and 1 minor injury.

• In the southbound direction, there were 3 casualty crashes in the 2017 data. This resulted in 3 minor injuries.

• The infringement graphs show the number of infringements issued at this location by direction, as well as the trend in infringements. Roadworks and camera maintenance may influence the number of infringements issued.

### Woolloomooloo/East Sydney - Cross City Tunnel

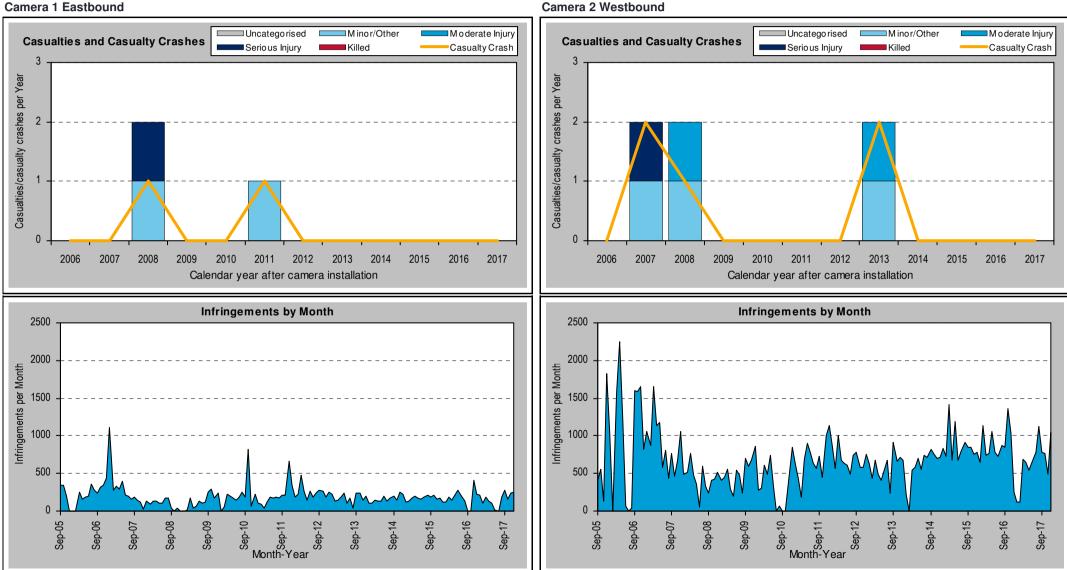
This is a high risk location that is enforced with fixed speed cameras, because it is difficult for the NSW Police to enforce. The length of each enforced direction is:

- Camera 1 (eastbound) 2145m
- Camera 2 (westbound) 2090m

The cameras commenced operating on 5 September 2005.

- In the eastbound direction, there were no casualty crashes in the 2017 data.
- In the westbound direction, there were no casualty crashes in the 2017 data.

• The infringement graphs show the number of infringements issued at this location by direction, as well as the trend in infringements. Roadworks and camera maintenance may influence the number of infringements issued.



### Camera 1 Eastbound

# B. NSW red-light speed cameras

## B.1 The red-light speed camera program

As at 31 December 2017, there were 191 red-light speed cameras in place at 171 locations across NSW. The median installation date for NSW red-light speed cameras was 27 June 2011.

Red-light speed cameras are installed at specific signalised intersections where drivers are vulnerable to right angle crashes and there is an elevated risk of a pedestrian crash. These cameras detect and deter both speeding and red-light running, both of which can result in severe injuries even in lower speed crashes.

In managing the program, Roads and Maritime Services (RMS) may increase the warning letter period and/or use Variable Message Signs to increase driver awareness of camera locations, where the trend in warning letters or number of infringements issued deems this appropriate. RMS also conducts ongoing site maintenance to ensure that signage is effectively placed and not obscured by roadside objects, such as trees. In late 2012, RMS also improved the road signs at red-light speed camera locations.

A table outlining NSW red-light speed camera locations is provided overleaf, and data about individual camera locations are provided on pages B8 – B178.

# B.2 Red-light speed camera locations

	Location	Cameras	Road	Status	Page
1	Adamstown	1	Park Avenue at Northcott Drive	Retain	B8
2	Alexandria	1	Collins Street at O'Riordan Street	Insufficient data	B9
3	Alexandria / Waterloo	2	McEvoy Street at Botany Road	Retain	B10
4	Ashfield	1	Frederick Street at Hume Highway	Retain	B11
5	Auburn	1	Chisholm Road at Mona Street	Insufficient data	B12
6	Auburn	1	Rawson Street at Northumberland Road	Insufficient data	B13
7	Auburn	1	Rawson Street at Station Road	Insufficient data	B14
8	Auburn	2	Silverwater Road at M4 westbound on-ramp	Retain	B15
9	Banksmeadow	1	Botany Road at Foreshore Road	Insufficient data	B16
10	Bankstown	1	Edgar Street at Marion Street	Insufficient data	B17
11	Bankstown	1	Meredith Street at Hume Highway (school zone)	Retain	B18
12	Bankstown	1	Stacey Street at Hume Highway	Insufficient data	B19
13	Baulkham Hills	2	Windsor Road at Old Northern Road / Seven Hills Road	Retain	B20
14	Belfield	1	Burwood Road at Punchbowl Road	Insufficient data	B21
15	Bexley	1	Forest Road at Harrow Road	Retain and monitor	B22
16	Bexley	1	Harrow Road at Watkin Street	Insufficient data	B23
17	Blacktown	1	Bungarribee Road at Balmoral Street	Retain	B24
18	Blacktown	1	Great Western Highway at Reservoir Road	Retain	B25
19	Blacktown	1	Lancaster Street at Kildare Street (school zone)	Retain	B26
20	Blacktown	1	Newton Road at Flushcombe Road (school zone)	Retain	B27
21	Blacktown	1	Richmond Road at Third Avenue	Insufficient data	B28
22	Blacktown	1	Sunnyholt Road at Main Street	Retain	B29
23	Blacktown	1	Third Avenue at Prince Street	Insufficient data	B30
24	Blakehurst	1	King Georges Road at Terry Streeet	Insufficient data	B31
25	Bondi Junction	1	Old South Head Road at Bondi Road	Retain	B32
26	Bradbury	1	Moore Oxley Bypass at The Parkway	Insufficient data	B33
27	Burwood	1	Railway Parade at Burwood Road	Insufficient data	B34

Red-light speed cameras are installed across NSW, as follows:

	Location	Cameras	Road	Status	Page
28	Burwood / Concord	2	Parramatta Road at Burwood Road	Retain	B35
29	Cabramatta	2	Cumberland Highway at Cabramatta Road West	Retain	B36
30	Cabramatta	1	Cumberland Highway at St Johns Road	Retain	B37
31	Campbelltown	2	Kellicar Road at Narellan Road	Retain	B38
32	Campbelltown	2	Moore-Oxley Bypass at Broughton Street	Retain	B39
33	Campsie	1	Canterbury Road at Bexley Road	Retain and monitor	B40
34	Campsie	1	Canterbury Road at Thorncraft Parade	Insufficient data	B41
35	Canley Heights	1	Cumberland Highway at Canley Vale Road (school zone)	Insufficient data	B42
36	Canley Vale	1	Sackville Street at Canley Vale Road	Retain and monitor	B43
37	Caringbah	1	The Kingsway at Gannons Road	Retain	B44
38	Castle Hill	1	Pennant Street at Castle Street	Insufficient data	B45
39	Castle Hill	1	Showground Road at Victoria Avenue	Retain and monitor	B46
40	Chester Hill / Sefton	2	Waldron Road at Hector Street	Retain	B47
41	Chippendale	1	Abercrombie Street at Broadway	Insufficient data	B48
42	Chullora	1	Rookwood Road at Muir Road	Insufficient data	B49
43	Concord	1	Broughton Street at Crane Street	Insufficient data	B50
44	Crows Nest	1	Pacific Highway at Hume Street	Retain	B51
45	Croydon Park	1	Georges River Road at Croydon Avenue	Insufficient data	B52
46	Darlinghurst	1	Craigend Street at McLachlan Avenue	Retain	B53
47	Darlinghurst	2	Oxford Street at Crown Street	Insufficient data	B54
48	Darlinghurst	1	William Street at Crown Street	Insufficient data	B55
49	Dean Park	1	Richmond Road at M7 Motorway southbound on-ramp	Insufficient data	B56
50	Dee Why	1	Pittwater Road at Harbord Road	Retain	B57
51	Drummoyne	1	Victoria Road at Lyons Road	Insufficient data	B58
52	Eastern Creek	1	Great Western Highway at Rooty Hill Road South	Insufficient data	B59
53	Eastwood	1	Blaxland Road at May Street	Retain	B60
54	Eastwood	1	Rutledge Street at Shaftsbury Road (school zone)	Insufficient data	B61
55	Epping	1	Carlingford Road at Rawson Street	Insufficient data	B62
56	Ermington	1	Victoria Road at Spurway Street	Insufficient data	B63
57	Fairfield	1	Hamilton Road at Sackville Street	Retain	B64

	Location	Cameras	Road	Status	Page
58	Fairfield	1	Hamilton Road at The Boulevarde	Insufficient data	B65
59	Fairfield	1	The Horsley Drive at Polding Street	Insufficient data	B66
60	Figtree	1	Princes Highway at O'Briens Road	Retain	B67
61	Five Dock	1	Fairlight Street at Ramsay Road	Retain and monitor	B68
62	Five Dock	1	Parramatta Road at Arlington Street	Insufficient data	B69
63	Glenwood	1	Old Windsor Road at Sunnyholt Road	Insufficient data	B70
64	Granville	1	Parramatta Road at Good Street	Insufficient data	B71
65	Granville	1	Woodville Road at M4 westbound on-ramp	Retain	B72
66	Greenacre	1	Juno Parade at Roberts Road	Insufficient data	B73
67	Greystanes	1	Cumberland Highway at Merrylands Road	Insufficient data	B74
68	Guildford	1	Woodville Road at Guildford Road	Retain	B75
69	Haberfield	1	Dobroyd Parade at Mortley Avenue	Retain	B76
70	Haberfield	1	Parramatta Road at Sloane Street	Retain	B77
71	Haberfield	1	Ramsay Street at Wattle Street	Insufficient data	B78
72	Hamilton	1	Tudor Street at Beaumont Street	Retain and monitor	B79
73	Hamilton East	1	Pacific Highway at Parry Street	Retain	B80
74	Haymarket	2	George Street at Pitt Street / Quay Street	Insufficient data	B81
75	Homebush West	1	Homebush Bay Drive at M4 eastbound on-ramp	Insufficient data	B82
76	Hunters Hill	1	Ryde Road at Pittwater Road	Retain	B83
77	Kensington	1	Anzac Parade at Todman Avenue	Retain and monitor	B84
78	Kingsgrove	1	Bexley Road at William Street	Retain	B85
79	Kingsgrove	1	Kingsgrove Road at Forsyth Street	Insufficient data	B86
80	Kingsgrove	1	Stoney Creek Road at Patrick Street	Insufficient data	B87
81	Kirrawee	1	Acacia Road at President Avenue	Retain	B88
82	Kogarah Bay	1	Park Road at Princes Highway	Retain and monitor	B89
83	Lakemba	1	Punchbowl Road at Wangee Road	Insufficient data	B90
84	Lambton	1	Griffiths Road at Turton Road	Retain	B91
85	Lane Cove	1	Epping Road at Centennial Avenue	Insufficient data	B92
86	Lansdowne / Villawood	2	Henry Lawson Drive / Woodville Road at Hume Highway	Retain	B93
87	Leichhardt	1	City West Link at James Street	Insufficient data	B94

	Location	Cameras	Road	Status	Page
88	Lidcombe	1	Olympic Drive at Vaughan Street	Retain	B95
89	Liverpool	1	Hume Highway at Hoxton Park Road	Insufficient data	B96
90	Liverpool	1	Hume Highway at Elizabeth Drive	Retain	B97
91	Liverpool	1	Memorial Avenue at Bathurst Street	Insufficient data	B98
92	Liverpool	1	Moore Street at Bathurst Street	Insufficient data	B99
93	Maroubra	1	Anzac Parade at Boyce Road	Insufficient data	B100
94	Marrickville	1	Sydenham Road at Victoria Road	Retain and monitor	B101
95	Mascot	1	O'Riordan Street at Coward Street	Retain	B102
96	Mascot	1	O'Riordan Street at Gardeners Road	Retain	B103
97	Mayfield West	1	Pacific Highway at Maud Street	Retain and monitor	B104
98	Mays Hill	2	Great Western Highway at Coleman Street / Hawkesbury Road	Retain	B105
99	Merrylands West	1	Merrylands Road at Sherwood Road	Insufficient data	B106
100	Milperra	1	Newbridge Road at Henry Lawson Drive	Retain and monitor	B107
101	Miranda	1	Kingsway at Port Hacking Road	Retain	B108
102	Moore Park	1	Anzac Parade at Lang Road	Ineligible	B109
103	Moore Park / Paddington	2	Anzac Parade / Flinders Street at Moore Park Road	Retain	B110
104	Moorebank	1	Newbridge Road at Stockton Avenue	Retain	B111
105	Mosman	1	Military Road at Cowles Road	Retain and monitor	B112
106	Mount Druitt	1	Great Western Highway at Carlisle Avenue	Insufficient data	B113
107	Naremburn	1	Willoughby Road at Chandos Street	Insufficient data	B114
108	Neutral Bay	1	Falcon Street at Merlin Street	Insufficient data	B115
109	North Ryde	3	Cox's Road at Lane Cove Road (school zone)	Insufficient data	B116
110	North Ryde	1	Wicks Road at Epping Road	Retain and monitor	B117
111	Northmead	1	Briens Road at Redbank Road	Insufficient data	B118
112	Northmead	1	Old Windsor Road at Cumberland Highway	Retain	B119
113	Paddington	1	Moore Park Road at Lang Road	Retain	B120
114	Paddington / Surry Hills	2	South Dowling Street at Fitzroy Street / Moore Park Road	Retain	B121
115	Parramatta	1	Great Western Highway at Marsden Street	Insufficient data	B122
116	Parramatta	1	Macquarie Street at Marsden Street	Insufficient data	B123
117	Parramatta	1	O'Connell Street at Argyle Street	Insufficient data	B124

	Location	Cameras	Road	Status	Page
118	Parramatta	1	Victoria Road at Church Street	Retain	B125
119	Pennant Hills	1	Pennant Hills Road at Beecroft Road (school zone)	Retain	B126
120	Petersham	1	Gordon Street at New Canterbury Road	Retain and monitor	B127
121	Petersham	1	Parramatta Road at West Street	Retain and monitor	B128
122	Prospect	1	Great Western Highway at Clunies Ross Street	Insufficient data	B129
123	Ramsgate	1	Rocky Point Road at Ramsgate Road	Insufficient data	B130
124	Randwick	1	Alison Street at Avoca Street	Insufficient data	B131
125	Randwick	1	Avoca Street at Darley Road	Retain	B132
126	Redfern	1	Chalmers Street at Cleveland Street (school zone)	Retain	B133
127	Richmond	1	March Street at East Market Street	Insufficient data	B134
128	Rockdale	1	Bestic Street at West Botany Street	Retain	B135
129	Rockdale	2	Princes Highway at Bay Street / The Seven Ways	Retain	B136
130	Rooty Hill	1	Woodstock Avenue at M7 northbound off-ramp	Insufficient data	B137
131	Roselands	1	King Georges Road at Moorefields Road	Retain	B138
132	Roselands / Wiley Park	2	Canterbury Road at King Georges Road	Retain	B139
133	Rozelle	1	Victoria Road at Evans Street	Retain	B140
134	Rozelle	1	Wellington Street at Victoria Road	Retain	B141
135	Ryde	1	Victoria Road at Devlin Street	Retain and monitor	B142
136	Seven Hills	1	Abbott Road at Station Road	Insufficient data	B143
137	Silverwater	1	Silverwater Road at M4 eastbound on-ramp	Retain	B144
138	Smithfield	1	Cumberland Highway at The Horsley Drive	Insufficient data	B145
139	Smithfield	1	Polding Street at The Boulevarde	Insufficient data	B146
140	Smithfield	1	The Horsley Drive at Gipps Street	Insufficient data	B147
141	Smithfield	1	Victoria Street at Hassall Street	Retain and monitor	B148
142	South Penrith	1	Parker Street at Jamison Road	Retain and monitor	B149
143	South Wentworthville	1	Cumberland Highway at Old Prospect Road	Retain and monitor	B150
144	Spring Hill	2	Springhill Road at Masters Road	Insufficient data	B151
145	St Marys	2	Great Western Highway at Charles Hackett Drive / Pages Road	Retain	B152
146	St Marys	1	Mamre Road at Saddington Street (school zone)	Insufficient data	B153
147	St Peters	1	Princes Highway at Sydney Park Road	Insufficient data	B154

	Location	Cameras	Road	Status	Page
148	Strathfield	1	Arthur Street at Centenary Drive	Retain	B155
149	Surry Hills	1	Cleveland Street at South Dowling Street	Retain	B156
150	Surry Hills	1	Crown Street at Albion Street	Insufficient data	B157
151	Surry Hills	1	Foveaux Street at Crown Street	Insufficient data	B158
152	Sydney	1	Elizabeth Street at Park Street	Insufficient data	B159
153	Thornleigh	1	Pennant Hills Road at Parkes Street	Retain and monitor	B160
154	Ultimo	1	Wattle Street at William Henry Street	Retain	B161
155	Unanderra	1	Princes Highway at Five Islands Road	Retain	B162
156	Waitara	1	Pacific Highway at Romsey Street (school zone)	Insufficient data	B163
157	Wallsend	1	Thomas Street at Metcalfe Street	Insufficient data	B164
158	Warrawong	1	King Street (Grand Pacific Drive) at Cowper Street	Insufficient data	B165
159	Warwick Farm	1	Hume Highway at Bigge Street	Retain	B166
160	Waterloo	1	McEvoy Street at Elizabeth Street	Insufficient data	B167
161	Wentworthville	1	Great Western Highway at Station Street	Retain	B168
162	West Pennant Hills	1	Pennant Hills Road at Eaton Road	Retain	B169
163	West Pymble	1	Ryde Road at Lady Game Drive	Retain	B170
164	Wiley Park	1	The Boulevarde at King Georges Road (school zone)	Insufficient data	B171
165	Windang	1	Windang Road at Boronia Avenue	Retain	B172
166	Windsor	1	Macquarie Street at Hawkesbury Valley Way	Insufficient data	B173
167	Wollongong	1	Corrimal Street at Burelli Street	Retain	B174
168	Wollongong	1	Gladstone Avenue at Princes Highway	Retain and monitor	B175
169	Woollahra	1	Queen Street at Ocean Street	Insufficient data	B176
170	Yagoona	1	Rookwood Road at Brunker Road	Insufficient data	B177
171	Zetland	1	Bourke Street at Botany Road	Retain	B178
	Total cameras:	191		·	•

Crash and infringement data for these 171 camera locations are individually presented overleaf.

### 7211 Adamstown - Park Avenue at Northcott Drive

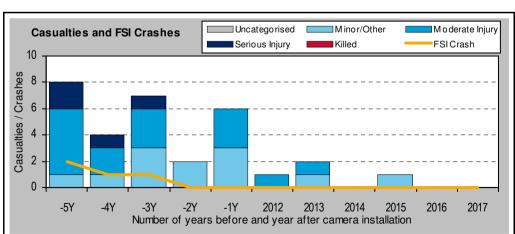
- There is one camera at this intersection.
- The camera at the intersection of Park Avenue and Northcott Drive commenced issuing warning letters in May 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

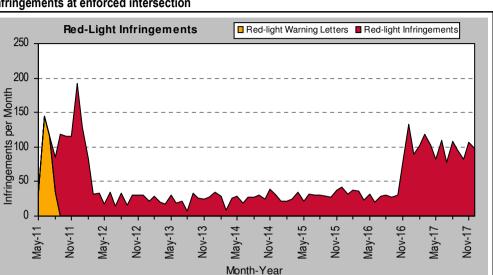
### Casualties and casualty crashes at enforced intersection

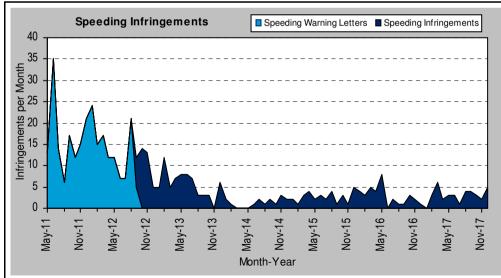
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	0	↓ 100%
Moderate Injuries	13	1	↓ 92%
Minor / Other Injuries	10	2	↓ 80%
Total Casualties:	27	3	↓ 89%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	19	3	↓ 84%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	10	0	↓ 100%
Rear End Casualty Crashes	5	3	↓ 40%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 21 February 2011 <sup>2</sup> Ending 31 December 2017



Status: Retain.





## 7287 Alexandria - Collins Street at O'Riordan Street

- There is one camera at this intersection.
- The camera at the intersection of Collins Street and O'Riordan Street commenced issuing warning letters in October 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

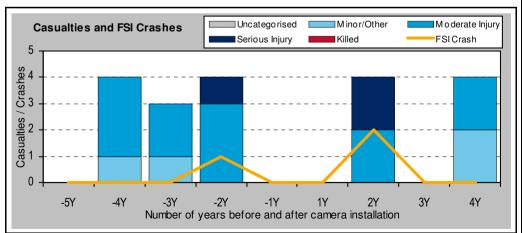
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 70 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	2	↑ 139%
Moderate Injuries	8	4	↓ 40%
Minor / Other Injuries	2	2	↑ 19%
Total Casualties:	11	8	↓ 13%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	2	↑ 139%
Casualty Crashes	9	6	↓ 20%
Adjacent Casualty Crashes	4	2	↓ 40%
Right Through Casualty Crashes	2	2	↑ 19%
Rear End Casualty Crashes	1	1	↑ 19%

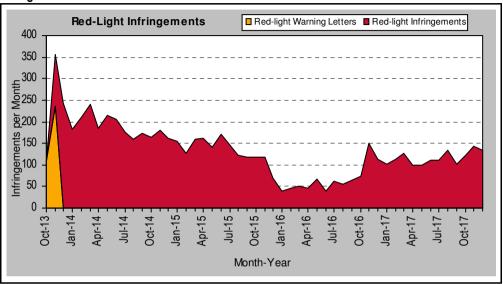
<sup>1</sup> Ending 91 days before the start of the warning letter period, 23 July 2013

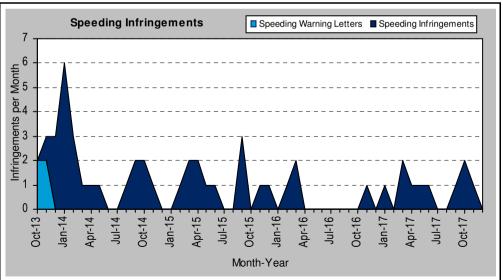
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

## 7101|7102 Alexandria / Waterloo - McEvoy Street at Botany Road

- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- Both cameras at the intersection of McEvoy Street and Botany Road commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

per

Infringements p 0 10 2

Jun-10

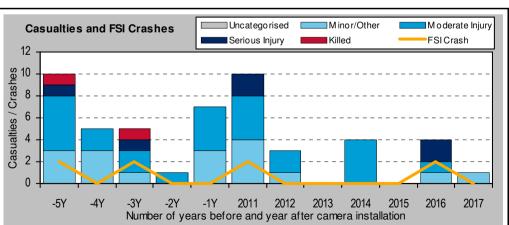
Dec-10.

Jun-11

## Casualties and casualty crashes at enforced intersection

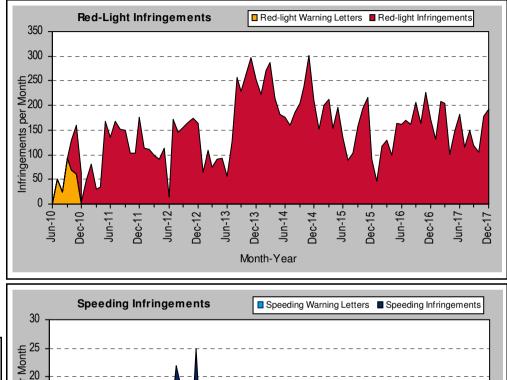
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	2	0	↓ 100%
Serious Injuries	2	2	↓ 0%
Moderate Injuries	14	5	↓ 64%
Minor / Other Injuries	10	2	↓ 80%
Total Casualties:	28	9	↓ 68%
Pedestrian Casualties	6	1	↓ 83%
Fatal and Serious Crashes	3	2	↓ 33%
Casualty Crashes	22	7	↓ 68%
Adjacent Casualty Crashes	5	5	↓ 0%
Right Through Casualty Crashes	3	0	↓ 100%
Rear End Casualty Crashes	6	1	↓ 83%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 31 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.

# Infringements at enforced intersection



Jun-13 -

Dec-13.

Jun-14.

Month-Year

Jun-15.

S

Dec-1

Dec-14

Jun-16.

Dec-16.

Dec-12.

Jun-12.

Dec-11

Dec-17

Jun-1

### 7180 Ashfield - Frederick Street at Hume Highway

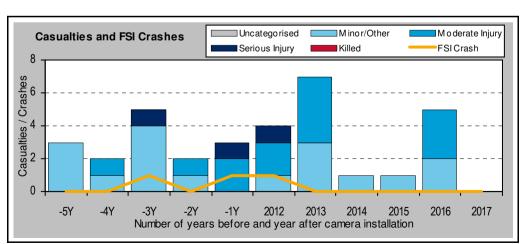
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Frederick Street and Hume Highway commenced issuing warning letters in March 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

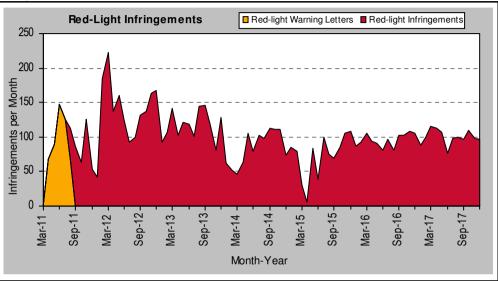
## Casualties and casualty crashes at enforced intersection

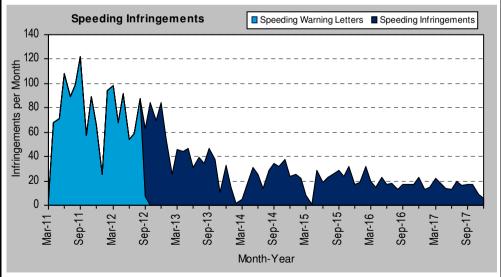
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	0	↓ 100%
Moderate Injuries	4	7	↑ 75%
Minor / Other Injuries	9	7	↓ 22%
Total Casualties:	15	14	↓ 7%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	0	↓ 100%
Casualty Crashes	12	12	↓ 0%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	3	1	↓ 67%
Rear End Casualty Crashes	4	7	↑ 75%

 $^{1}$  Ending 91 days before the start of the warning letter period, 15 December 2010  $^{2}$  Ending 31 December 2017



## Infringements at enforced intersection





Status: Retain.

### 7250 Auburn - Chisholm Road at Mona Street

- There is one camera at this intersection.
- The camera at the intersection of Chisholm Road and Mona Street commenced issuing warning letters in February 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

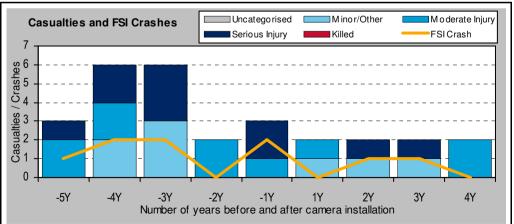
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 308 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	8	2	↓ 74%
Moderate Injuries	7	3	↓ 56%
Minor / Other Injuries	5	5	↑ 3%
Total Casualties:	20	10	↓ 48%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	7	2	↓ 70%
Casualty Crashes	15	10	↓ 31%
Adjacent Casualty Crashes	8	3	↓ 61%
Right Through Casualty Crashes	2	3	↑ 55%
Rear End Casualty Crashes	1	3	↑ 210%

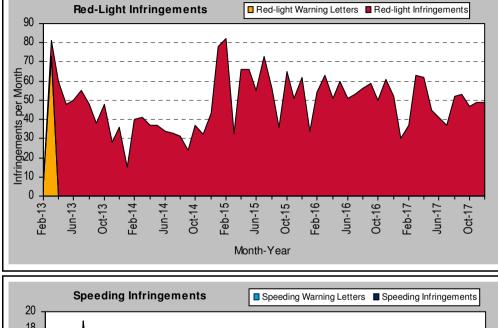
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 November 2012

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7336 Auburn - Rawson Street at Northumberland Road

- There is one camera at this intersection.
- The camera at the intersection of Rawson Street and Northumberland Road commenced issuing warning letters in September 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

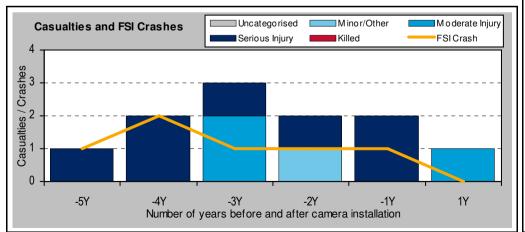
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 92 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	7	0	↓ 100%
Moderate Injuries	2	1	↑ 100%
Minor / Other Injuries	1	0	↓ 100%
Total Casualties:	10	1	↓ 60%
Pedestrian Casualties	5	1	↓ 20%
Fatal and Serious Crashes	6	0	↓ 100%
Casualty Crashes	7	1	↓ 43%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	1	0	↓ 100%

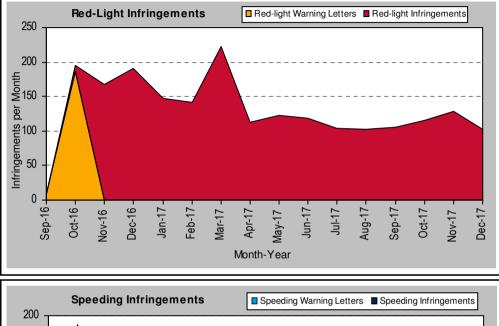
<sup>1</sup> Ending 91 days before the start of the warning letter period, 1 July 2016

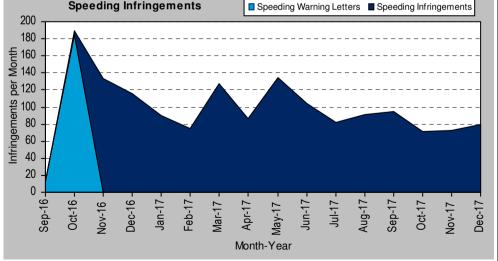
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





### 7300 Auburn - Rawson Street at Station Road

- There is one camera at this intersection.
- The camera at the intersection of Rawson Street and Station Road commenced issuing warning letters in July 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

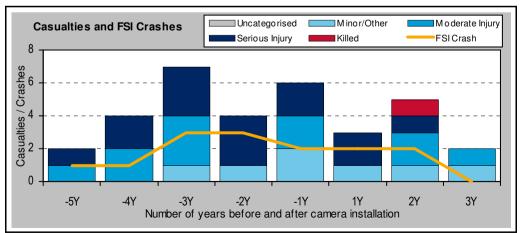
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 159 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	1	Increase
Serious Injuries	11	3	↓ 60%
Moderate Injuries	8	3	↓ 45%
Minor / Other Injuries	4	3	↑ 9%
Total Casualties:	23	10	↓ 37%
Pedestrian Casualties	9	4	↓ 35%
Fatal and Serious Crashes	10	4	↓ 42%
Casualty Crashes	21	8	↓ 45%
Adjacent Casualty Crashes	10	0	↓ 100%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	0	2	Increase

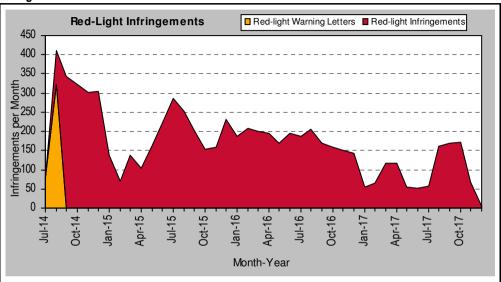
<sup>1</sup> Ending 91 days before the start of the warning letter period, 25 April 2014

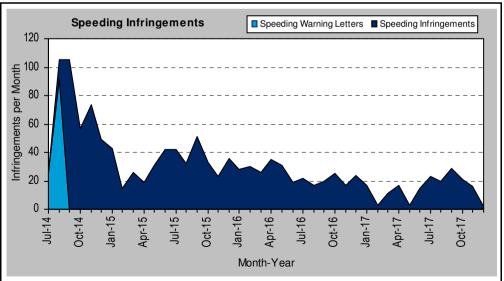
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7112|7223 Auburn - Silverwater Road at M4 westbound on-ramp

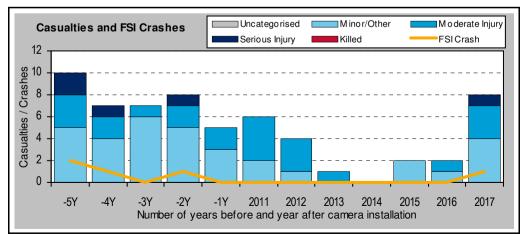
- There are two cameras at this intersection.
- The camera at the intersection of Silverwater Road and M4 Westbound On-ramp (northbound) commenced issuing warning letters in July 2010.
- The camera at the intersection of M4 Western Motorway Off-ramp and Silverwater Road (westbound) commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

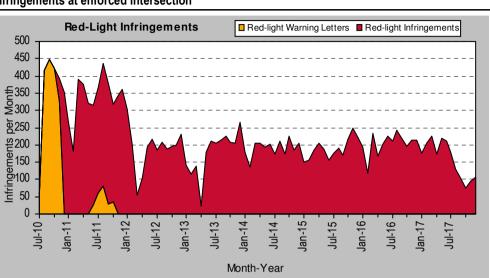
### Casualties and casualty crashes at enforced intersection

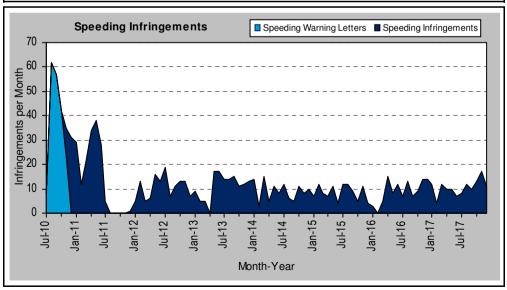
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	1	↓ 75%
Moderate Injuries	10	5	↓ 50%
Minor / Other Injuries	23	7	↓ 70%
Total Casualties:	37	13	↓ 65%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	1	↓ 75%
Casualty Crashes	30	12	↓ 60%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	4	2	↓ 50%
Rear End Casualty Crashes	13	8	↓ 38%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 April 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





## 7323 Banksmeadow - Botany Road at Foreshore Road

- There is one camera at this intersection.
- The camera at the intersection of Foreshore Road and Botany Road commenced issuing warning letters in July 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

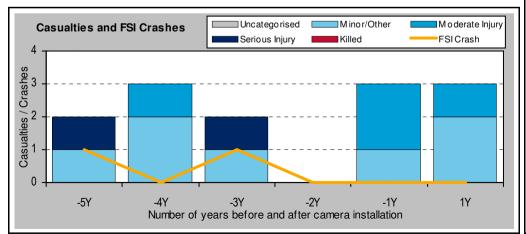
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 178 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	1	↑ 68%
Moderate Injuries	3	1	↑ 12%
Minor / Other Injuries	5	3	↑ 102%
Total Casualties:	10	5	↑ 68%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	1	↑ 68%
Casualty Crashes	7	4	↑ 92%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	0	1	Increase
Rear End Casualty Crashes	2	1	↑ 68%

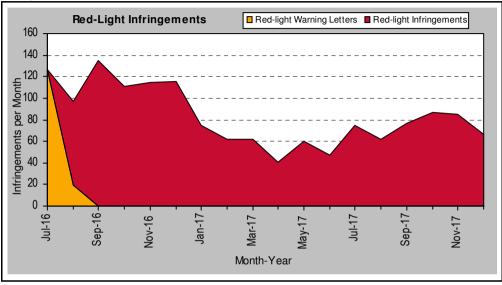
<sup>1</sup> Ending 91 days before the start of the warning letter period, 6 April 2016

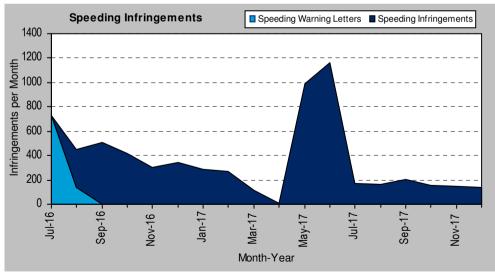
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

## 7272 Bankstown - Edgar Street at Marion Street

- There is one camera at this intersection.
- The camera at the intersection of Edgar Street and Marion Street commenced issuing warning letters in August 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

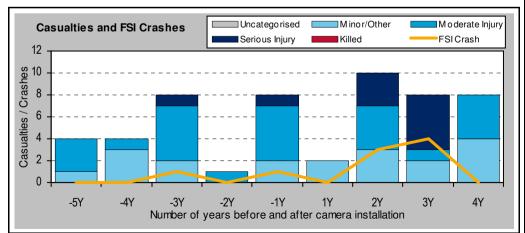
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	8	↑ 360%
Moderate Injuries	15	9	↓ 31%
Minor / Other Injuries	8	11	↑ 58%
Total Casualties:	25	28	↑ 29%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	7	↑ 303%
Casualty Crashes	18	21	↑ 34%
Adjacent Casualty Crashes	7	6	↓ 1%
Right Through Casualty Crashes	4	7	↑ 101%
Rear End Casualty Crashes	3	3	↑ 15%

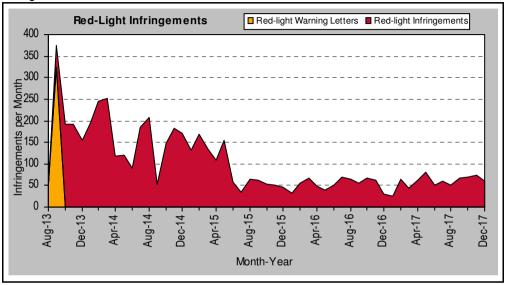
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2013

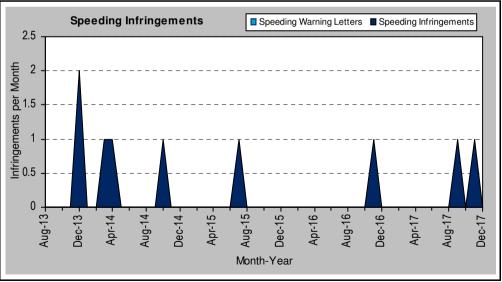
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7155 Bankstown - Meredith Street at Hume Highway (school zone)

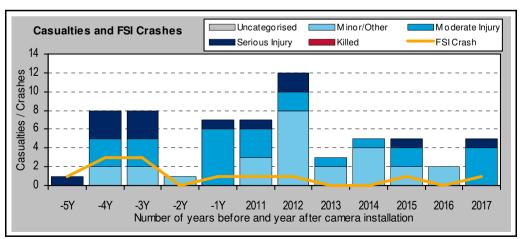
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Meredith Street and Hume Highway commenced issuing warning letters in December 2010. This camera enforces red-light running only.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

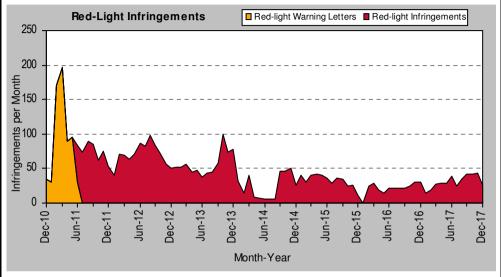
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	8	2	↓ 75%
Moderate Injuries	12	8	↓ 33%
Minor / Other Injuries	5	10	↑ 100%
Total Casualties:	25	20	↓ 20%
Pedestrian Casualties	2	3	↑ 50%
Fatal and Serious Crashes	8	2	↓ 75%
Casualty Crashes	17	17	↓ 0%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	5	8	↑ 60%
Rear End Casualty Crashes	7	3	↓ 57%

# $^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010 $^{2}$ Ending 31 December 2017



Status: Retain.



## 7248 Bankstown - Stacey Street at Hume Highway

- There is one camera at this intersection.
- The camera at the intersection of Stacey Street and Hume Highway commenced issuing warning letters in April 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

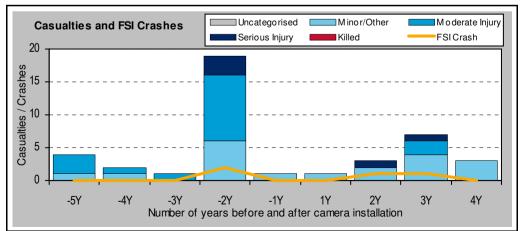
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 255 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	3	2	↓ 29%
Moderate Injuries	15	2	↓ 86%
Minor / Other Injuries	9	13	↑ 54%
Total Casualties:	27	17	↓ 33%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	2	↑ 6%
Casualty Crashes	20	15	↓ 20%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	8	10	↑ 33%

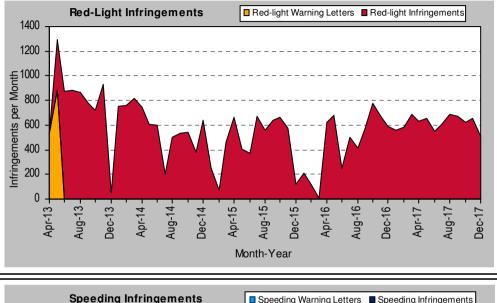
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 January 2013

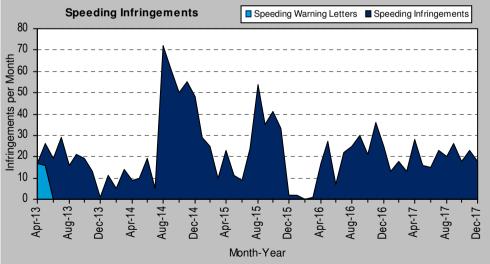
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7145|7146 Baulkham Hills - Windsor Road at Old Northern Road / Seven Hills Road

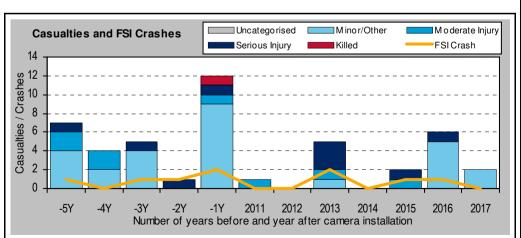
- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- Both cameras at the intersection of Windsor Road and Seven Hills Road commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

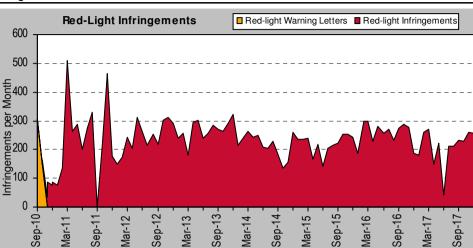
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	1	0	↓ 100%
Serious Injuries	4	5	↑ 25%
Moderate Injuries	5	2	↓ 60%
Minor / Other Injuries	19	8	↓ 58%
Total Casualties:	29	15	↓ 48%
Pedestrian Casualties	1	2	↑ 100%
Fatal and Serious Crashes	5	4	↓ 20%
Casualty Crashes	25	12	↓ 52%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	3	1	↓ 67%
Rear End Casualty Crashes	8	7	↓ 13%

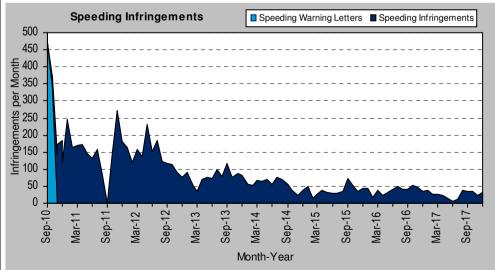
 $^{1}$  Ending 91 days before the start of the warning letter period, 3 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.



### Infringements at enforced intersection



Month-Year

## 7277 Belfield - Burwood Road at Punchbowl Road

- There is one camera at this intersection.
- The camera at the intersection of Burwood Road and Punchbowl Road commenced issuing warning letters in October 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

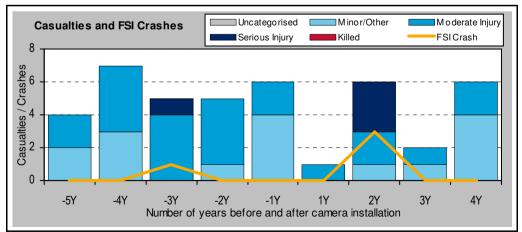
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 70 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	3	↑ 258%
Moderate Injuries	16	6	↓ 55%
Minor / Other Injuries	10	6	↓ 28%
Total Casualties:	27	15	↓ 34%
Pedestrian Casualties	7	3	↓ 49%
Fatal and Serious Crashes	1	3	↑ 258%
Casualty Crashes	16	13	↓ 3%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	4	2	↓ 40%
Rear End Casualty Crashes	0	6	Increase

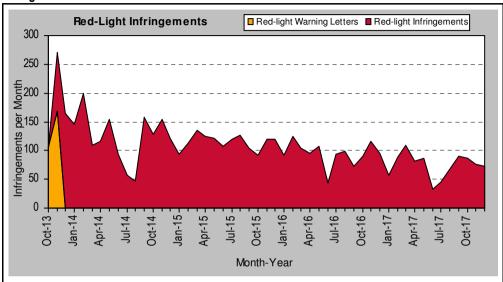
<sup>1</sup> Ending 91 days before the start of the warning letter period, 23 July 2013

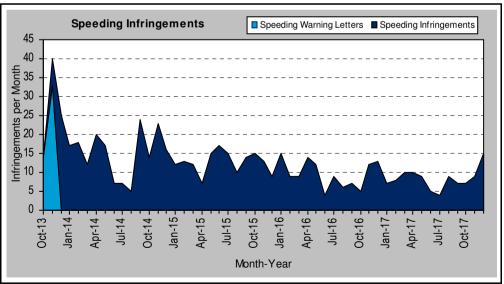
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7183 Bexley - Forest Road at Harrow Road

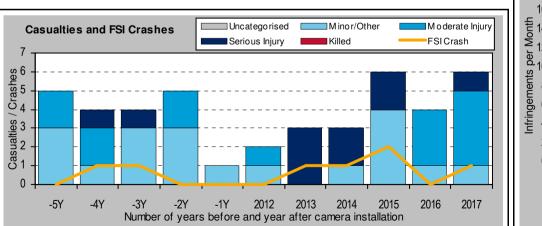
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Forest Road and Harrow Road commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

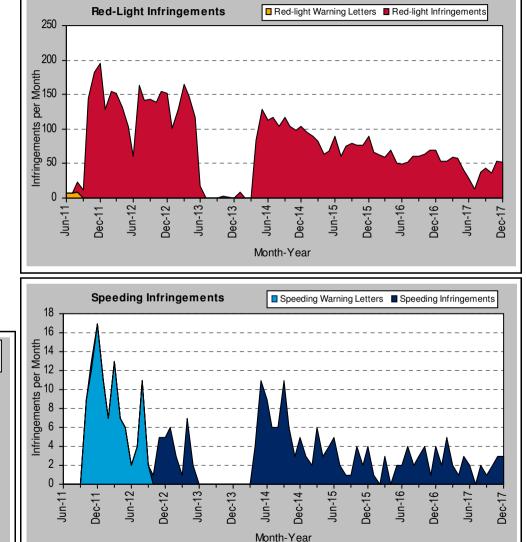
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	8	↑ 300%
Moderate Injuries	6	7	↑ 17%
Minor / Other Injuries	11	7	↓ 36%
Total Casualties:	19	22	↑ 16%
Pedestrian Casualties	1	2	↑ 100%
Fatal and Serious Crashes	2	5	↑ 150%
Casualty Crashes	17	15	↓ 12%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	4	3	↓ 25%
Rear End Casualty Crashes	7	8	↑ 14%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 30 March 2011  $^{\rm 2}$  Ending 31 December 2017



### Infringements at enforced intersection



Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

### 7304 Bexley - Harrow Road at Watkin Street

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Harrow Road and Watkin Street commenced issuing warning letters in July 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

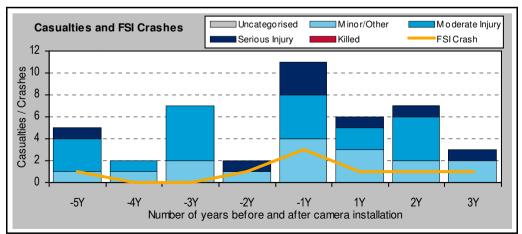
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 159 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	3	↓ 13%
Moderate Injuries	13	6	↓ 33%
Minor / Other Injuries	9	7	↑ 13%
Total Casualties:	27	16	↓ 14%
Pedestrian Casualties	2	1	↓ 27%
Fatal and Serious Crashes	5	2	↓ 42%
Casualty Crashes	20	9	↓ 35%
Adjacent Casualty Crashes	5	3	↓ 13%
Right Through Casualty Crashes	7	2	↓ 58%
Rear End Casualty Crashes	2	0	↓ 100%

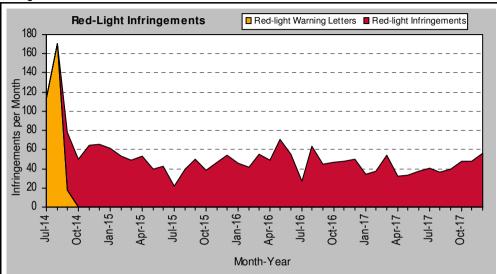
<sup>1</sup> Ending 91 days before the start of the warning letter period, 25 April 2014

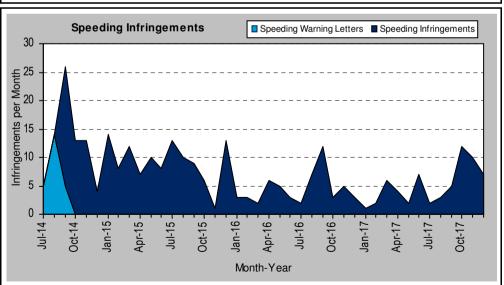
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.





### 7160 Blacktown - Bungarribee Road at Balmoral Street

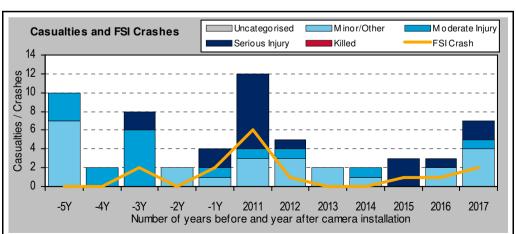
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Bungarribee Road and Balmoral Street commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

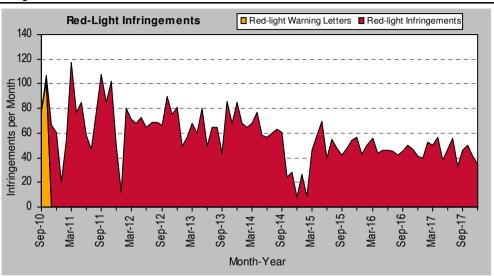
## Casualties and casualty crashes at enforced intersection

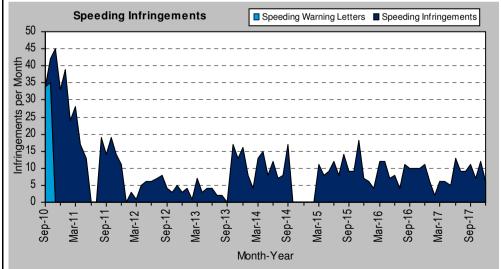
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	6	↑ 50%
Moderate Injuries	12	2	↓ 83%
Minor / Other Injuries	10	9	↓ 10%
Total Casualties:	26	17	↓ 35%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	4	↓ 0%
Casualty Crashes	19	13	↓ 32%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	6	3	↓ 50%
Rear End Casualty Crashes	5	9	↑ 80%

 $^{1}$  Ending 91 days before the start of the warning letter period, 14 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





## 7168 Blacktown - Great Western Highway at Reservoir Road

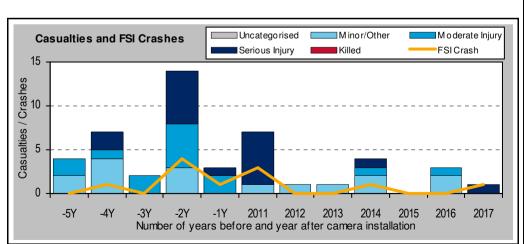
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Great Western Highway and Reservoir Road commenced issuing warning letters in December 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

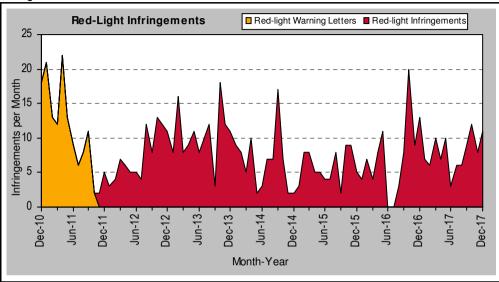
## Casualties and casualty crashes at enforced intersection

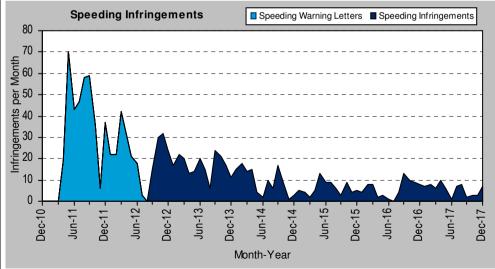
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	9	2	↓ 78%
Moderate Injuries	12	2	↓ 83%
Minor / Other Injuries	9	5	↓ 44%
Total Casualties:	30	9	↓ 70%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	6	2	↓ 67%
Casualty Crashes	19	9	↓ 53%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	5	0	↓ 100%
Rear End Casualty Crashes	6	4	↓ 33%

 $^{1}$  Ending 348 days before the start of the warning letter period, 1 January 2010  $^{2}$  Ending 31 December 2017









## 7196 Blacktown - Lancaster Street at Kildare Street (school zone)

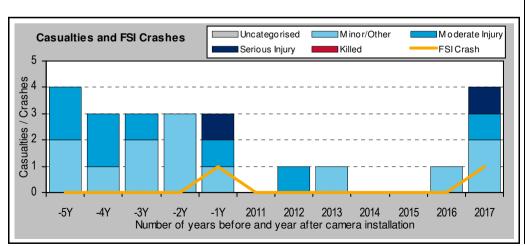
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Lancaster Street and Kildare Road commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

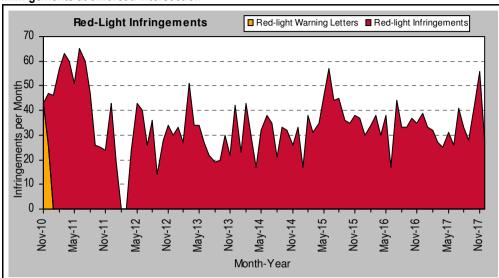
## Casualties and casualty crashes at enforced intersection

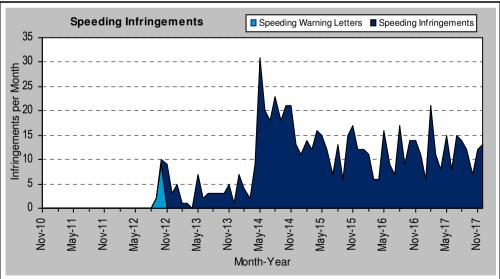
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	1	↓ 0%
Moderate Injuries	6	1	↓ 83%
Minor / Other Injuries	9	4	↓ 56%
Total Casualties:	16	6	↓ 63%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	1	1	↓0%
Casualty Crashes	12	4	↓ 67%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	2	1	↓ 50%
Rear End Casualty Crashes	3	1	↓ 67%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 12 August 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





## 7170 Blacktown - Newton Road at Flushcombe Road (school zone)

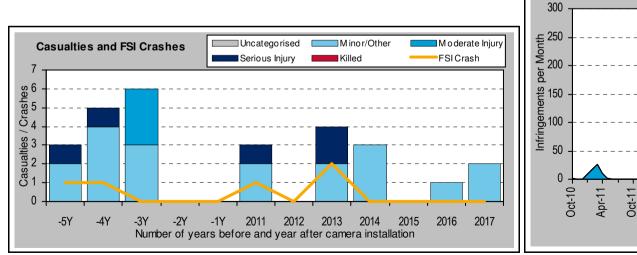
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Newton Road and Flushcombe Road commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

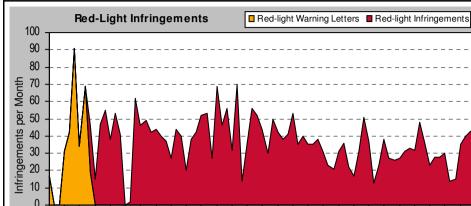
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	2	↓ 0%
Moderate Injuries	3	0	↓ 100%
Minor / Other Injuries	9	8	↓ 11%
Total Casualties:	14	10	↓ 29%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	2	2	↓0%
Casualty Crashes	12	7	↓ 42%
Adjacent Casualty Crashes	2	2	↓ 0%
Right Through Casualty Crashes	7	2	↓ 71%
Rear End Casualty Crashes	2	0	↓ 100%

 $^{1}$  Ending 91 days before the start of the warning letter period, 8 July 2010  $^{2}$  Ending 31 December 2017



#### Status: Retain.



Oct-13

Apr-14

Month-Year

Apr-15

Apr-15 -

Oct-15.

Apr-16 .

Oct-16 -

Apr-17

Oct-17

Oct-15

Speeding Warning Letters Speeding Infringements

Apr-16

Oct-16

Oct-17

Apr-17

Oct-14

### Infringements at enforced intersection

Oct-10

Apr-11

Oct-11

Apr-12

Speeding Infringements

Apr-12

Oct-12

Apr-13

Oct-13

Apr-14

Month-Year

Oct-14

Oct-12

Apr-13

## 7327 Blacktown - Richmond Road at Third Avenue

- There is one camera at this intersection.
- The camera at the intersection of Third Avenue and Richmond Road commenced issuing warning letters in July 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

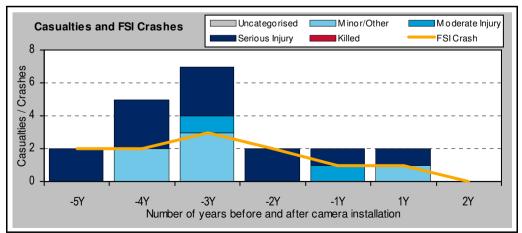
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 157 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	11	1	↓ 81%
Moderate Injuries	2	0	↓ 100%
Minor / Other Injuries	5	2	↓ 18%
Total Casualties:	18	3	↓ 66%
Pedestrian Casualties	8	0	↓ 100%
Fatal and Serious Crashes	10	1	↓ 79%
Casualty Crashes	15	3	↓ 59%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	3	1	↓ 31%
Rear End Casualty Crashes	2	1	↑ 3%

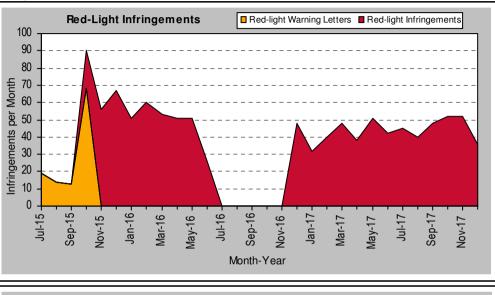
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 April 2015

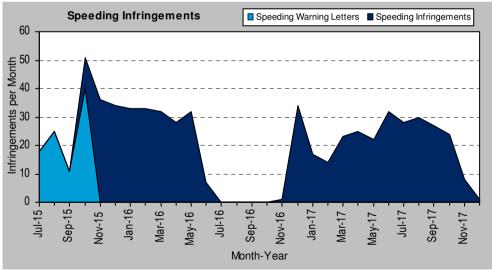
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.





### 7193 Blacktown - Sunnyholt Road at Main Street

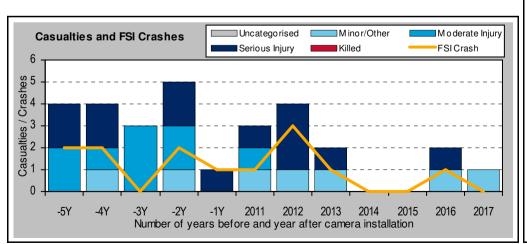
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Sunnyholt Road and Main Street commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

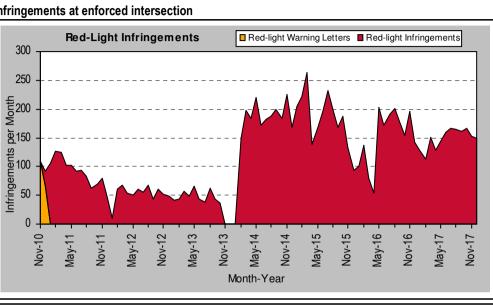
## Casualties and casualty crashes at enforced intersection

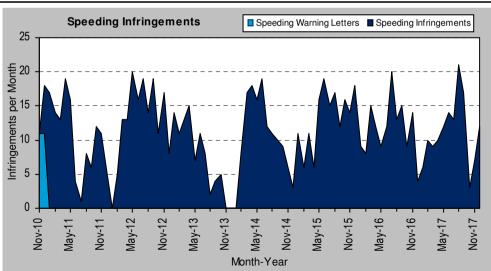
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	7	2	↓ 71%
Moderate Injuries	8	0	↓ 100%
Minor / Other Injuries	2	3	↑ 50%
Total Casualties:	17	5	↓ 71%
Pedestrian Casualties	8	0	↓ 100%
Fatal and Serious Crashes	7	2	↓ 71%
Casualty Crashes	16	4	↓ 75%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	1	1	↓ 0%
Rear End Casualty Crashes	2	2	↓ 0%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 12 August 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





## 7310 Blacktown - Third Avenue at Prince Street

- There is one camera at this intersection.
- The camera at the intersection of Third Avenue and Prince Street commenced issuing warning letters in July 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

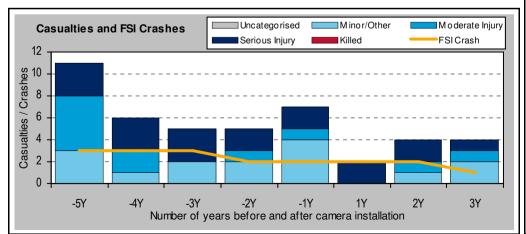
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 159 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	13	5	↓ 44%
Moderate Injuries	9	2	↓ 68%
Minor / Other Injuries	12	3	↓ 64%
Total Casualties:	34	10	↓ 57%
Pedestrian Casualties	9	0	↓ 100%
Fatal and Serious Crashes	13	5	↓ 44%
Casualty Crashes	25	6	↓ 65%
Adjacent Casualty Crashes	3	1	↓ 52%
Right Through Casualty Crashes	9	2	↓ 68%
Rear End Casualty Crashes	4	0	↓ 100%

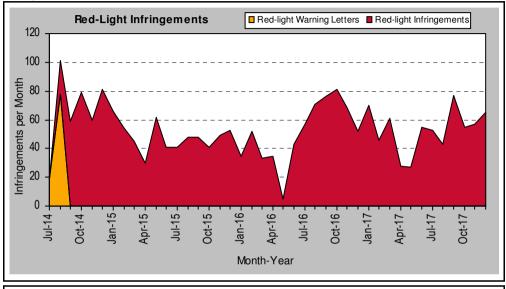
<sup>1</sup> Ending 91 days before the start of the warning letter period, 25 April 2014

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7313 Blakehurst - King Georges Road at Terry Streeet

- There is one camera at this intersection.
- The camera at the intersection of King Georges Road and Terry Street commenced issuing warning letters in August 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

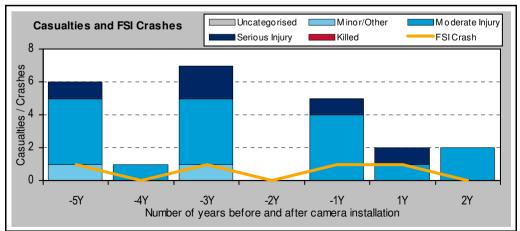
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 127 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	1	↓ 47%
Moderate Injuries	13	3	↓ 51%
Minor / Other Injuries	2	0	↓ 100%
Total Casualties:	19	4	↓ 55%
Pedestrian Casualties	3	0	↓ 100%
Fatal and Serious Crashes	3	1	↓ 29%
Casualty Crashes	12	3	↓ 47%
Adjacent Casualty Crashes	0	1	Increase
Right Through Casualty Crashes	7	2	↓ 39%
Rear End Casualty Crashes	2	0	↓ 100%

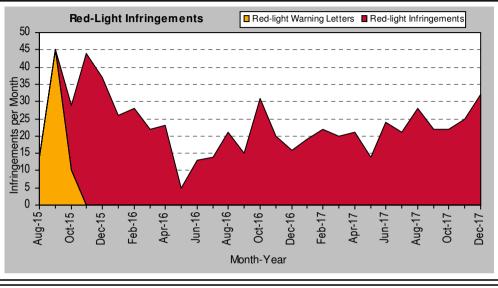
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2015

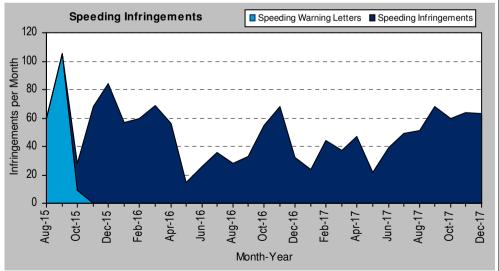
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7192 Bondi Junction - Old South Head Road at Bondi Road

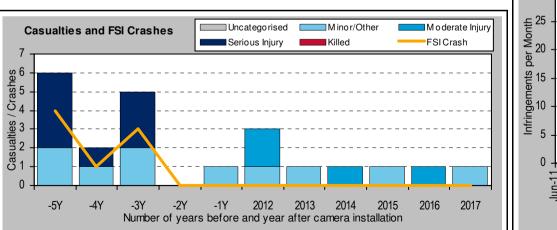
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Old South Head Road and Bondi Road commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

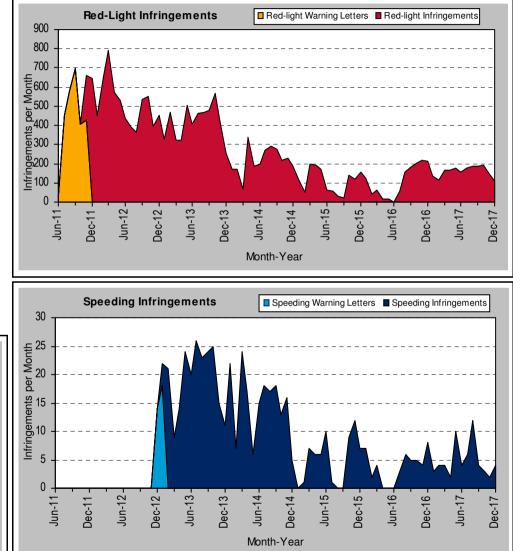
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	8	0	↓ 100%
Moderate Injuries	0	2	Increase
Minor / Other Injuries	6	3	↓ 50%
Total Casualties:	14	5	↓ 64%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	8	0	↓ 100%
Casualty Crashes	12	5	↓ 58%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	0	3	Increase

 $^{1}$  Ending 91 days before the start of the warning letter period, 28 March 2011  $^{2}$  Ending 31 December 2017



Status: Retain.



#### 7276 Bradbury - Moore Oxley Bypass at The Parkway

- There is one camera at this intersection.
- The camera at the intersection of Moore Oxley Bypass and The Parkway commenced issuing warning letters in October 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

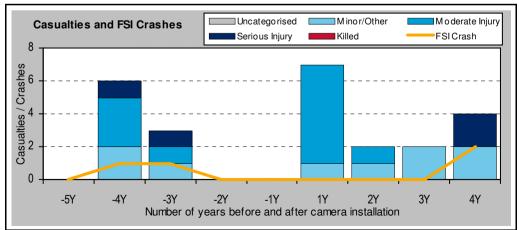
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 74 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	2	↑ 19%
Moderate Injuries	4	7	↑ 108%
Minor / Other Injuries	3	6	↑ 138%
Total Casualties:	9	15	↑ 98%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	2	↑ 19%
Casualty Crashes	7	10	↑ 70%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	4	5	↑ 49%
Rear End Casualty Crashes	1	3	↑ 257%

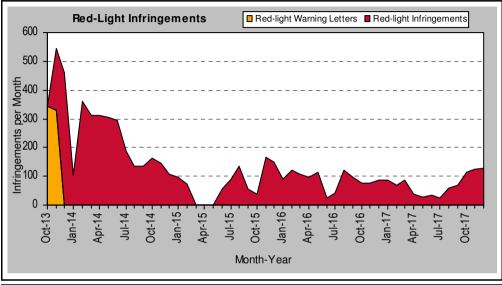
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 July 2013

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7293 Burwood - Railway Parade at Burwood Road

- There is one camera at this intersection.
- The camera at the intersection of Railway Parade and Burwood Road commenced issuing warning letters in August 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

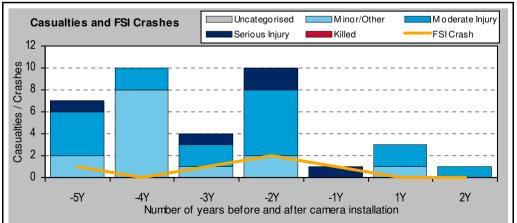
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 127 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	14	3	↓ 54%
Minor / Other Injuries	13	1	↓ 84%
Total Casualties:	32	4	↓ 73%
Pedestrian Casualties	15	2	↓ 72%
Fatal and Serious Crashes	5	0	↓ 100%
Casualty Crashes	28	3	↓ 77%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	4	1	↓ 47%
Rear End Casualty Crashes	3	0	↓ 100%

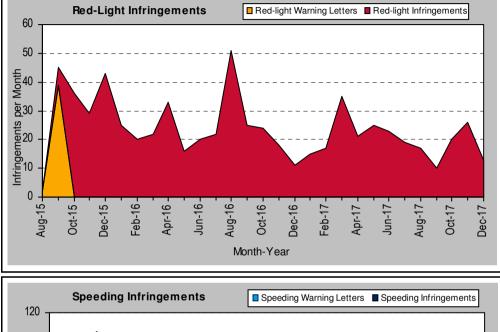
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2015

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7129|7130 Burwood / Concord - Parramatta Road at Burwood Road

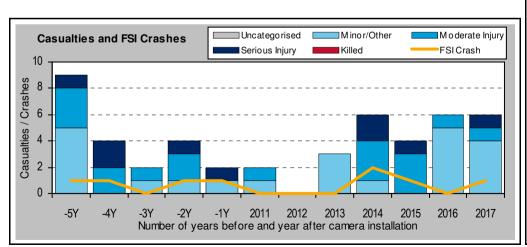
- There are two cameras at this intersection.
- Both cameras at the intersection of Parramatta Road and Burwood Road commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

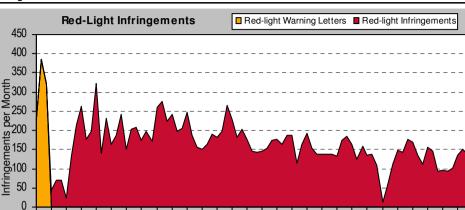
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	4	↓ 20%
Moderate Injuries	8	8	↓ 0%
Minor / Other Injuries	8	13	↑ 63%
Total Casualties:	21	25	↑ 19%
Pedestrian Casualties	3	4	↑ 33%
Fatal and Serious Crashes	4	4	↓0%
Casualty Crashes	15	18	↑ 20%
Adjacent Casualty Crashes	5	2	↓ 60%
Right Through Casualty Crashes	0	1	Increase
Rear End Casualty Crashes	5	8	↑ 60%

 $^{1}$  Ending 91 days before the start of the warning letter period, 7 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.



Sep-13

Mar-14

Month-Year

Sep-14

Mar-15

Sep-15.

Mar-16

Sep-16.

Mar-17

Sep-17

Sep-12

Mar-13

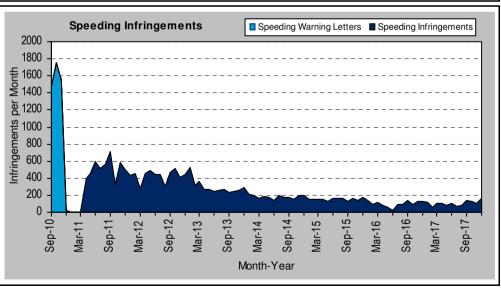
#### Infringements at enforced intersection

Sep-10.

Mar-11

Sep-11

Mar-12



#### 7108|7109 Cabramatta - Cumberland Highway at Cabramatta Road West

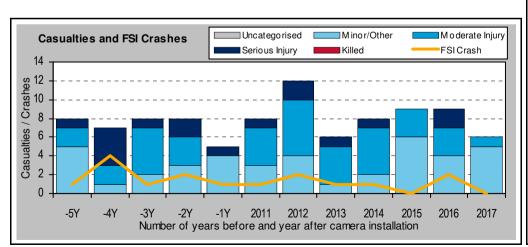
- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- Both cameras at the intersection of Cumberland Highway and Cabramatta Road West commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

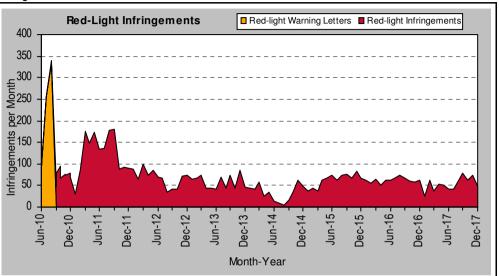
#### Casualties and casualty crashes at enforced intersection

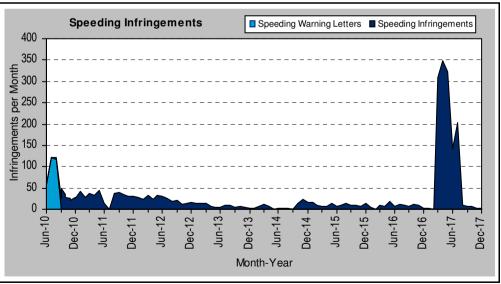
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	9	4	↓ 56%
Moderate Injuries	12	16	↑ 33%
Minor / Other Injuries	15	18	↑ 20%
Total Casualties:	36	38	↑ 6%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	9	4	↓ 56%
Casualty Crashes	31	29	↓ 6%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	12	10	↓ 17%
Rear End Casualty Crashes	8	13	↑ 63%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 25 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





#### 7159 Cabramatta - Cumberland Highway at St Johns Road

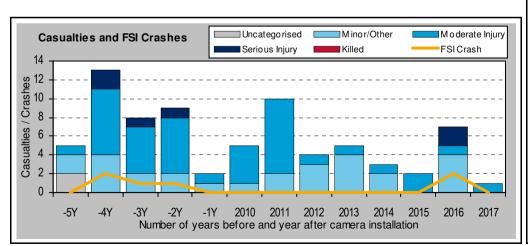
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Cumberland Highway and St Johns Road commenced issuing warning letters in December 2009.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

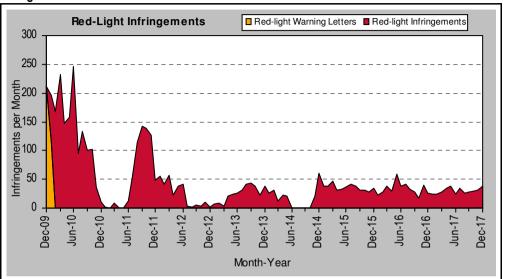
#### Casualties and casualty crashes at enforced intersection

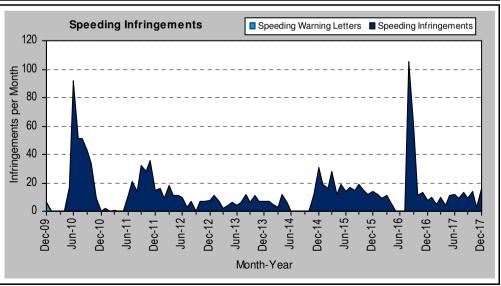
	4 years and 260 days before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	2	↓ 53%
Moderate Injuries	20	6	↓ 72%
Minor / Other Injuries	9	10	↑ 5%
Total Casualties:	33	18	↓ 49%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	2	↓ 53%
Casualty Crashes	21	15	↓ 33%
Adjacent Casualty Crashes	1	2	↑ 88%
Right Through Casualty Crashes	7	2	↓ 73%
Rear End Casualty Crashes	8	5	↓ 41%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 18 September 2009  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





#### 7110|7111 Campbelltown - Kellicar Road at Narellan Road

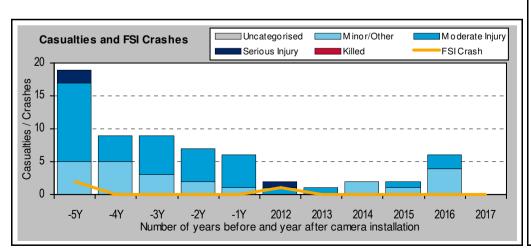
- There are two cameras at this intersection.
- Both cameras at the intersection of Kellicar Road and Narellan Road commenced issuing warning letters in May 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

#### Casualties and casualty crashes at enforced intersection

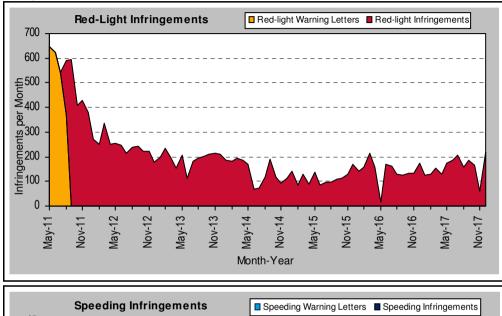
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	0	↓ 100%
Moderate Injuries	32	4	↓ 88%
Minor / Other Injuries	16	7	↓ 56%
Total Casualties:	50	11	↓ 78%
Pedestrian Casualties	6	0	↓ 100%
Fatal and Serious Crashes	2	0	↓ 100%
Casualty Crashes	31	8	↓ 74%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	9	0	↓ 100%
Rear End Casualty Crashes	6	6	↓ 0%

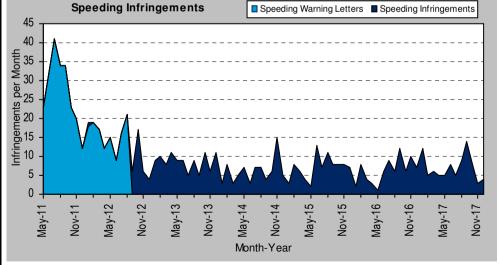
<sup>1</sup> Ending 91 days before the start of the warning letter period, 7 February 2011 <sup>2</sup> Ending 31 December 2017



Status: Retain.







#### er penou, / i ebiuary zu i i

#### 7103|7104 Campbelltown - Moore-Oxley Bypass at Broughton Street

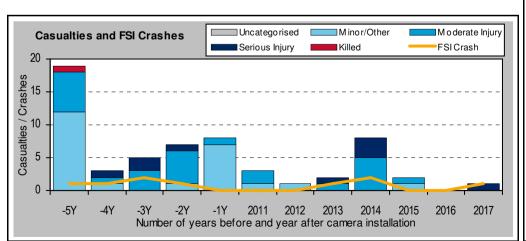
- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- Both cameras at the intersection of Moore-Oxley Bypass and Broughton Street commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

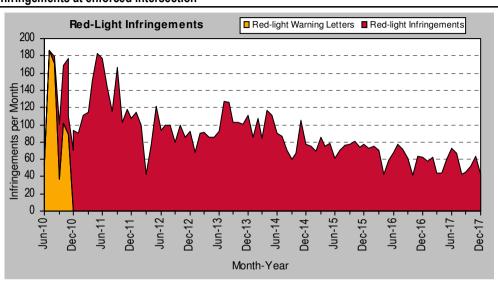
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	1	0	↓ 100%
Serious Injuries	4	5	↑ 25%
Moderate Injuries	16	7	↓ 56%
Minor / Other Injuries	21	1	↓ 95%
Total Casualties:	42	13	↓ 69%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	4	↓ 20%
Casualty Crashes	22	7	↓ 68%
Adjacent Casualty Crashes	5	1	↓ 80%
Right Through Casualty Crashes	10	5	↓ 50%
Rear End Casualty Crashes	6	1	↓ 83%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 25 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





#### 7167 Campsie - Canterbury Road at Bexley Road

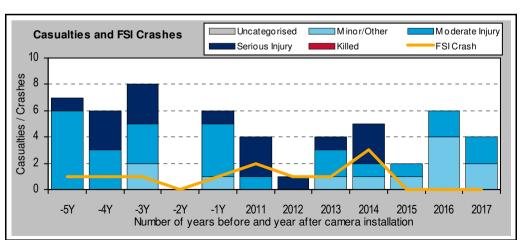
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Canterbury Road and Bexley Road commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

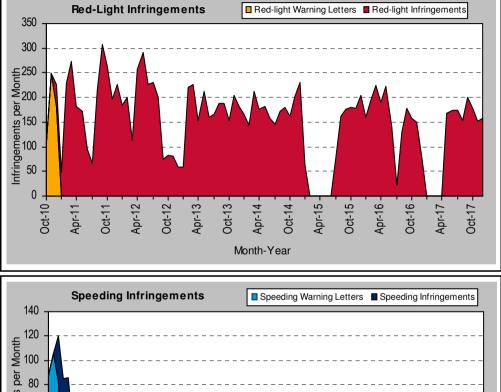
#### Casualties and casualty crashes at enforced intersection

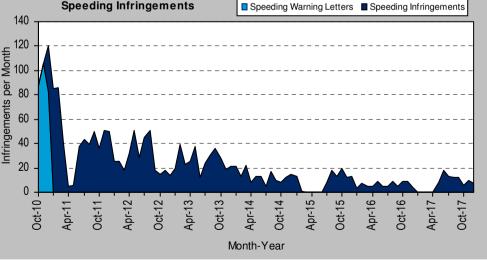
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	8	4	↓ 50%
Moderate Injuries	16	8	↓ 50%
Minor / Other Injuries	3	9	↑ 200%
Total Casualties:	27	21	↓ 22%
Pedestrian Casualties	1	2	↑ 100%
Fatal and Serious Crashes	4	4	↓ 0%
Casualty Crashes	17	16	↓ 6%
Adjacent Casualty Crashes	2	1	↓ 50%
Right Through Casualty Crashes	6	4	↓ 33%
Rear End Casualty Crashes	3	4	↑ 33%

 $^{1}$  Ending 91 days before the start of the warning letter period, 16 July 2010  $^{2}$  Ending 31 December 2017



Infringements at enforced intersection





Status: Retain.

#### 7246 Campsie - Canterbury Road at Thorncraft Parade

- There is one camera at this intersection.
- The camera at the intersection of Canterbury Road and Thorncraft Parade commenced issuing warning letters in April 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

Infringements at enforced intersection

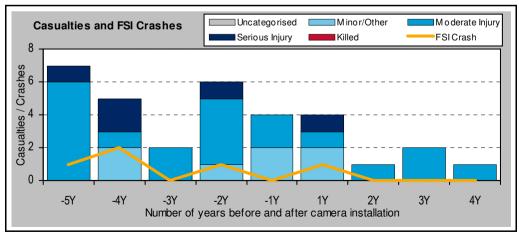
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 269 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	1	↓ 74%
Moderate Injuries	15	7	↓ 51%
Minor / Other Injuries	5	5	↑ 6%
Total Casualties:	24	13	↓ 43%
Pedestrian Casualties	3	1	↓ 65%
Fatal and Serious Crashes	4	1	↓ 74%
Casualty Crashes	16	10	↓ 34%
Adjacent Casualty Crashes	6	3	↓ 47%
Right Through Casualty Crashes	6	2	↓ 65%
Rear End Casualty Crashes	1	2	↑ 111%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 5 January 2013

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.

#### **Red-Light Infringements** Red-light Warning Letters Red-light Infringements 140 120 100 Month 80 80 per 60 nfringements 40 20 0 Aug-13 -Aug-15-Apr-13 Apr-16 Aug-16 Dec-13 Aug-14 Dec-14 Apr-15 Dec-15 Dec-16 Aug-17 Dec-17 Apr-14 Apr-17

#### Speeding Infringements Speeding Warning Letters Speeding Infringements 300 400 Hours 200 per Infringements 1 100 20 50 0 Aug-15-Aug-13 -Aug-14. Apr-15 . Dec-15. Apr-16 Aug-16 Dec-16 Apr-13 Dec-13 Apr-14 Dec-14 Apr-17 Aug-17 Dec-17 Month-Year

Month-Year

#### ient data (<5 years) to reliably assess.

#### 7324 Canley Heights - Cumberland Highway at Canley Vale Road (school zone)

- There is one camera at this intersection.
- The camera at the intersection of Cumberland Highway and Canley Vale Road commenced issuing warning letters in October 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

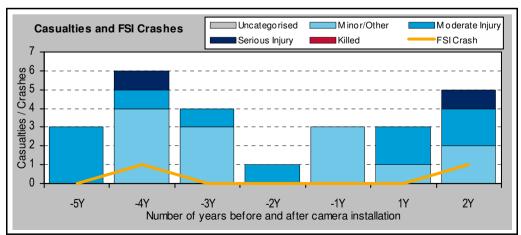
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 85 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	1	↑ 124%
Moderate Injuries	6	4	↑ 49%
Minor / Other Injuries	10	3	↓ 33%
Total Casualties:	17	8	↑ 5%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	1	↑ 124%
Casualty Crashes	15	7	↑ 5%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	6	2	↓ 25%
Rear End Casualty Crashes	6	3	↑ 12%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 9 July 2015

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



0

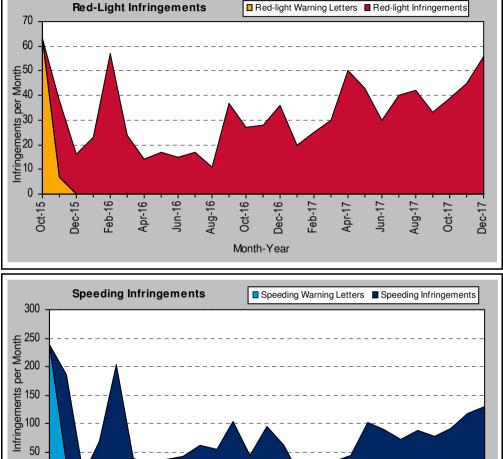
Oct-15 -

Feb-16 -

Apr-16 .

Jun-16.

Dec-15 -



Aug-16 -

Oct-16.

Dec-16.

Month-Year

Feb-17

Apr-17

Jun-17

Aug-17

Oct-17

Dec-17

Infringements at enforced intersection

Status: Insufficient data (<5 years) to reliably assess.

#### 7209 Canley Vale - Sackville Street at Canley Vale Road

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Sackville Street and Canley Vale Road commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	4	↑ 300%
Moderate Injuries	6	6	↓ 0%
Minor / Other Injuries	3	5	↑ 67%
Total Casualties:	10	15	↑ 50%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	3	↑ 200%
Casualty Crashes	7	9	↑ 29%
Adjacent Casualty Crashes	1	1	↓ 0%
Right Through Casualty Crashes	3	5	↑ 67%
Rear End Casualty Crashes	2	2	↓ 0%

Uncategorised

Serious Injury

M ino r/Other

Killed

<sup>1</sup> Ending 91 days before the start of the warning letter period, 7 January 2011 <sup>2</sup> Ending 31 December 2017

-2Y

**Casualties and FSI Crashes** 

-4Y

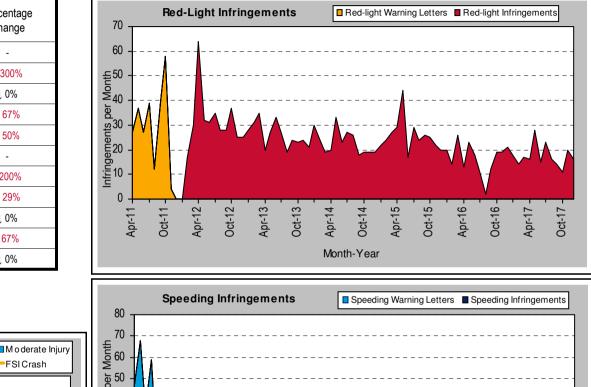
-3Y

12

Casualties / Crashes

0

-5Y



Apr-15 -

Oct-15.

Apr-16

Oct-16

#### Infringements at enforced intersection

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

2016

2017

FSICrash

Oct-11

Apr-11

Apr-12

Oct-12

Apr-13

Oct-13

Apr-14

Oct-1

Month-Year

-1Y

2012

Number of years before and year after camera installation

2013

2014

2015

Oct-17

Apr-1

#### 7162 Caringbah - The Kingsway at Gannons Road

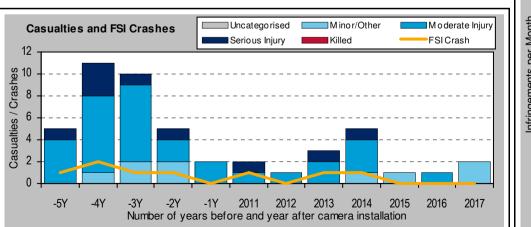
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Kingsway and Gannons Road commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

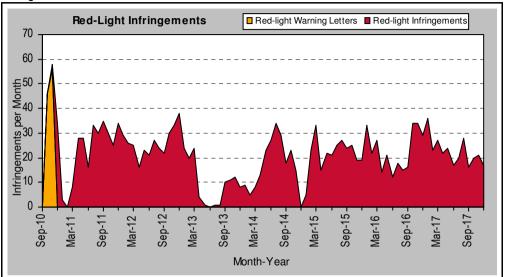
#### Casualties and casualty crashes at enforced intersection

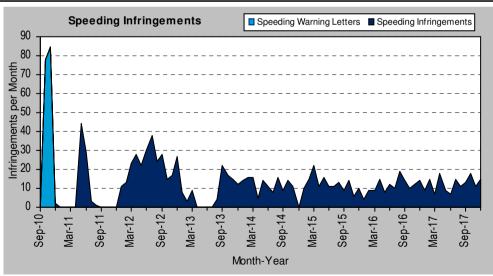
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	2	↓ 67%
Moderate Injuries	22	6	↓ 73%
Minor / Other Injuries	5	4	↓ 20%
Total Casualties:	33	12	↓ 64%
Pedestrian Casualties	3	1	↓ 67%
Fatal and Serious Crashes	5	2	↓ 60%
Casualty Crashes	23	9	↓ 61%
Adjacent Casualty Crashes	6	1	↓ 83%
Right Through Casualty Crashes	9	3	↓ 67%
Rear End Casualty Crashes	3	2	↓ 33%

 $^{1}$  Ending 91 days before the start of the warning letter period, 30 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





#### 7309 Castle Hill - Pennant Street at Castle Street

- There is one camera at this intersection.
- The camera at the intersection of Pennant Street and Castle Street commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

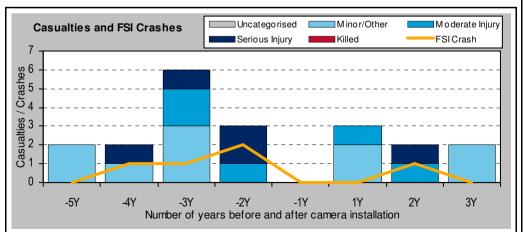
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 141 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	1	↓ 63%
Moderate Injuries	3	2	↓ 2%
Minor / Other Injuries	6	4	↓ 2%
Total Casualties:	13	7	↓ 21%
Pedestrian Casualties	0	2	Increase
Fatal and Serious Crashes	4	1	↓ 63%
Casualty Crashes	10	7	↑ 3%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	6	4	↓ 2%
Rear End Casualty Crashes	1	0	↓ 100%

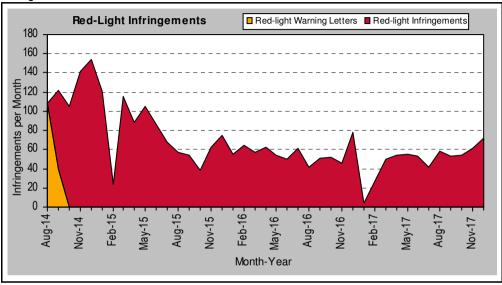
<sup>1</sup> Ending 91 days before the start of the warning letter period, 13 May 2014

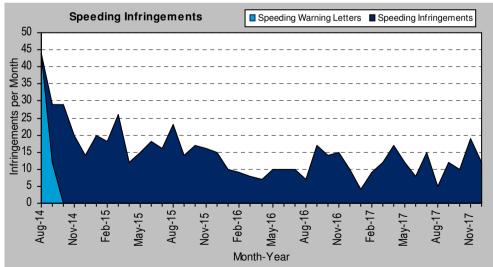
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7150 Castle Hill - Showground Road at Victoria Avenue

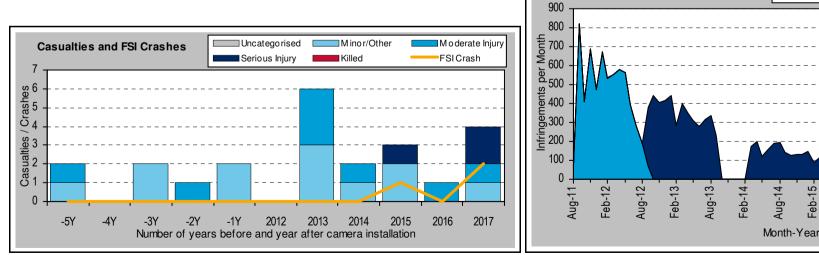
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Showground Road and Victoria Avenue commenced issuing warning letters in August 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	0	3	Increase
Moderate Injuries	2	6	↑ 200%
Minor / Other Injuries	5	7	↑ 40%
Total Casualties:	7	16	↑ 129%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	0	3	Increase
Casualty Crashes	6	13	↑ 117%
Adjacent Casualty Crashes	0	1	Increase
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	4	6	↑ 50%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 May 2011 <sup>2</sup> Ending 31 December 2017



#### Infringements at enforced intersection

Aug-12.

Feb-12

Aug-11

**Red-Light Infringements** 

Aug-13 -

Feb-14

Feb-15.

Aug-14

Month-Year

Aug-15.

Aug-15-

Feb-16.

Aug-16 -

Feb-17

Aug-1

Feb-15-

Feb-16

Speeding Warning Letters Speeding Infringements

Aug-16

Feb-17

Aug-17

Feb-13.

**Speeding Infringements** 

Red-light Warning Letters Red-light Infringements

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

#### 7124 7125 Chester Hill / Sefton - Waldron Road at Hector Street

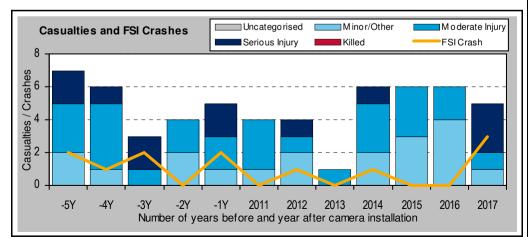
- There are two cameras at this intersection.
- The camera at the intersection of Waldron Road and Hector Street (westbound) commenced issuing warning letters in July 2010.
- The camera at the intersection of Waldron Road and Hector Street (eastbound) commenced issuing warning letters in August 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

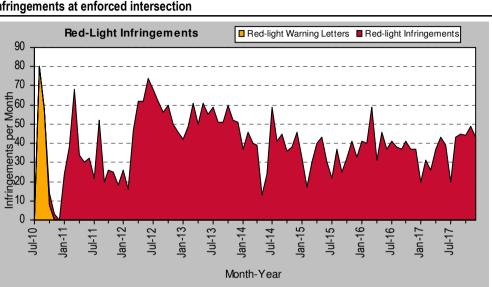
#### Casualties and casualty crashes at enforced intersection

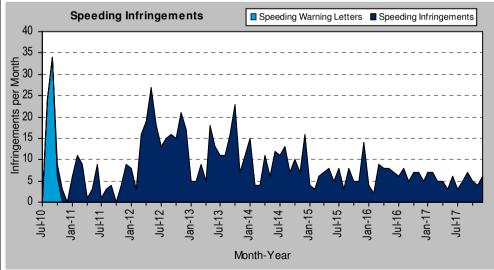
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	7	4	↓ 43%
Moderate Injuries	12	10	↓ 17%
Minor / Other Injuries	6	10	↑ 67%
Total Casualties:	25	24	↓ 4%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	7	4	↓ 43%
Casualty Crashes	20	21	↑ 5%
Adjacent Casualty Crashes	5	1	↓ 80%
Right Through Casualty Crashes	13	15	↑ 15%
Rear End Casualty Crashes	0	1	Increase

<sup>1</sup> Ending 91 days before the start of the warning letter period, 23 April 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





#### 7316 Chippendale - Abercrombie Street at Broadway

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Abercrombie Street and Broadway commenced issuing warning letters in December 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

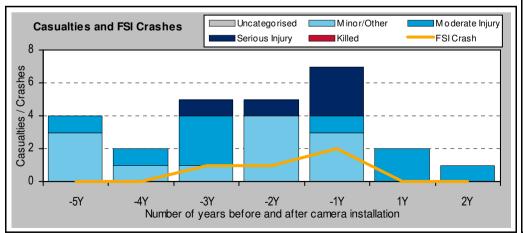
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 8 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	6	3	↑ 24%
Minor / Other Injuries	12	0	↓ 100%
Total Casualties:	23	3	↓ 68%
Pedestrian Casualties	2	1	↑ 24%
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	18	3	↓ 59%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	5	1	↓ 51%

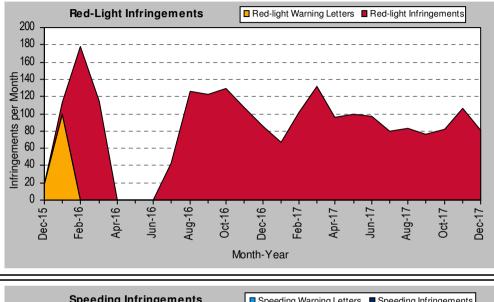
<sup>1</sup> Ending 91 days before the start of the warning letter period, 24 September 2015

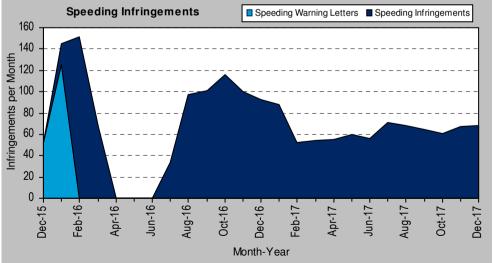
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7321 Chullora - Rookwood Road at Muir Road

- There is one camera at this intersection.
- The camera at the intersection of Rookwood Road and Muir Road commenced issuing warning letters in July 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

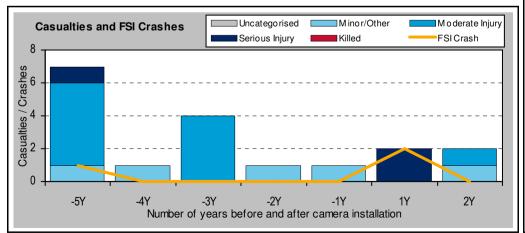
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 157 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	2	↑ 312%
Moderate Injuries	9	1	↓ 77%
Minor / Other Injuries	4	1	↓ 49%
Total Casualties:	14	4	↓ 41%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	1	2	↑ 312%
Casualty Crashes	8	4	↑ 3%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	3	0	↓ 100%
Rear End Casualty Crashes	1	1	↑ 106%

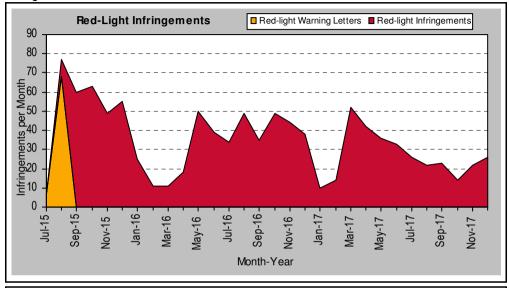
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 April 2015

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7252 Concord - Broughton Street at Crane Street

- There is one camera at this intersection.
- The camera at the intersection of Broughton Street and Crane Street commenced issuing warning letters in March 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

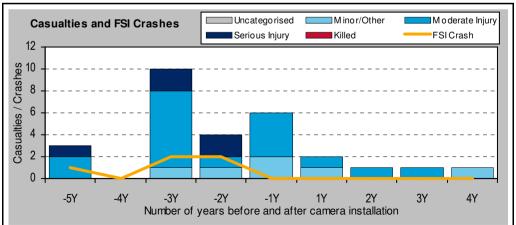
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 277 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	14	3	↓ 77%
Minor / Other Injuries	4	2	↓ 47%
Total Casualties:	23	5	↓ 77%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	0	↓ 100%
Casualty Crashes	15	5	↓ 65%
Adjacent Casualty Crashes	13	2	↓ 84%
Right Through Casualty Crashes	1	2	↑ 110%
Rear End Casualty Crashes	0	1	Increase

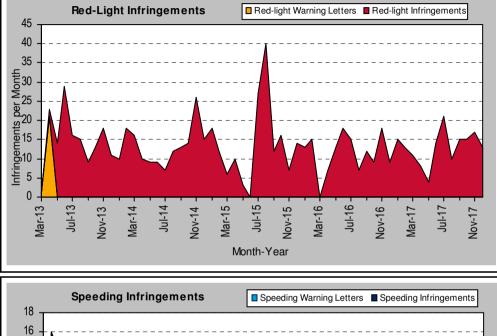
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 December 2012

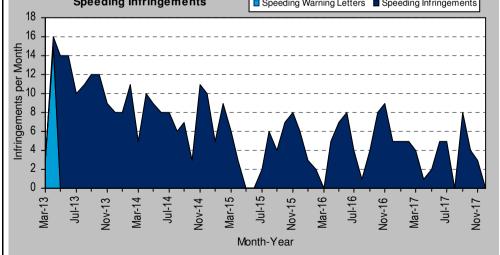
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7174 Crows Nest - Pacific Highway at Hume Street

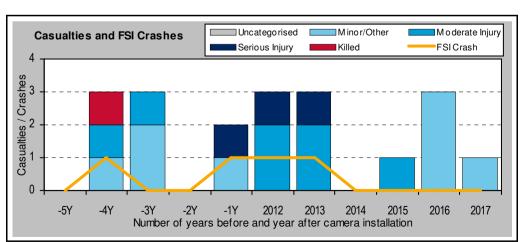
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Pacific Highway and Hume Street commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

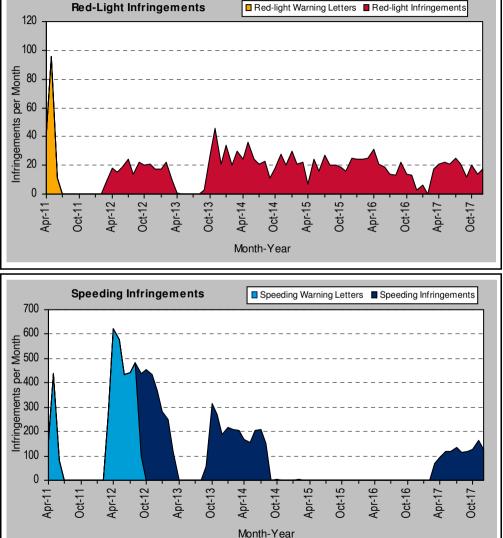
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	1	0	↓ 100%
Serious Injuries	1	1	↓ 0%
Moderate Injuries	2	3	↑ 50%
Minor / Other Injuries	4	4	↓ 0%
Total Casualties:	8	8	↓ 0%
Pedestrian Casualties	3	3	↓ 0%
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	6	7	↑ 17%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	0	1	Increase
Rear End Casualty Crashes	2	2	↓ 0%

 $^1$  Ending 91 days before the start of the warning letter period, 17 January 2011  $^2$  Ending 31 December 2017



#### Infringements at enforced intersection



Status: Retain.

#### 7275 Croydon Park - Georges River Road at Croydon Avenue

- There is one camera at this intersection.
- The camera at the intersection of Georges River Road and Croydon Avenue commenced issuing warning letters in August 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

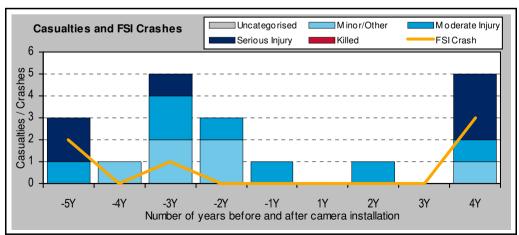
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	3	3	↑ 15%
Moderate Injuries	5	2	↓ 54%
Minor / Other Injuries	5	1	↓ 77%
Total Casualties:	13	6	↓ 47%
Pedestrian Casualties	3	3	↑ 15%
Fatal and Serious Crashes	3	3	↑ 15%
Casualty Crashes	12	6	↓ 42%
Adjacent Casualty Crashes	5	1	↓ 77%
Right Through Casualty Crashes	4	0	↓ 100%
Rear End Casualty Crashes	0	1	Increase

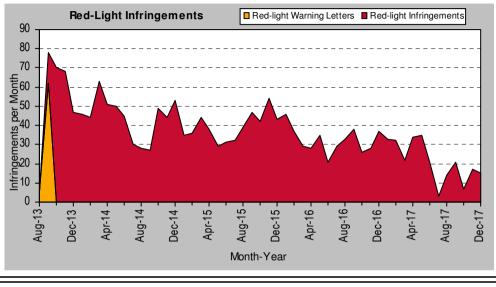
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2013

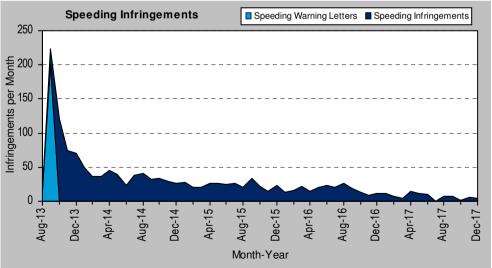
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7139 Darlinghurst - Craigend Street at McLachlan Avenue

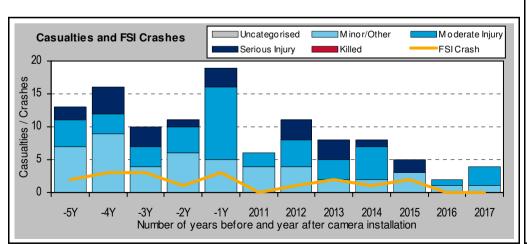
- There is one camera at this intersection.
- The camera at the intersection of Craigend Street and McLachlan Avenue commenced issuing warning letters in August 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued. This location was impacted by major civil works between June and November 2011.

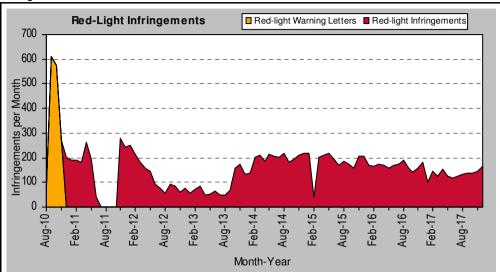
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	13	6	↓ 54%
Moderate Injuries	25	12	↓ 52%
Minor / Other Injuries	31	9	↓ 71%
Total Casualties:	69	27	↓ 61%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	12	5	↓ 58%
Casualty Crashes	48	21	↓ 56%
Adjacent Casualty Crashes	40	12	↓ 70%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	2	1	↓ 50%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





#### 7302|7318 Darlinghurst - Oxford Street at Crown Street

- · There are two cameras at this intersection.
- The camera at the intersection of Oxford Street and Crown Street (westbound) commenced issuing warning letters in September 2014.
- The camera at the intersection of Oxford Street and Crown Street (eastbound) commenced issuing warning letters in August 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

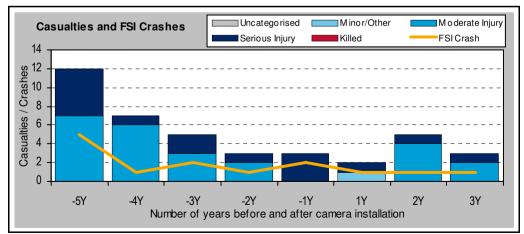
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 92 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	12	5	↓ 36%
Moderate Injuries	18	8	↓ 32%
Minor / Other Injuries	0	1	Increase
Total Casualties:	30	14	↓ 28%
Pedestrian Casualties	15	5	↓ 49%
Fatal and Serious Crashes	11	5	↓ 30%
Casualty Crashes	25	12	↓ 26%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	2	3	↑ 131%

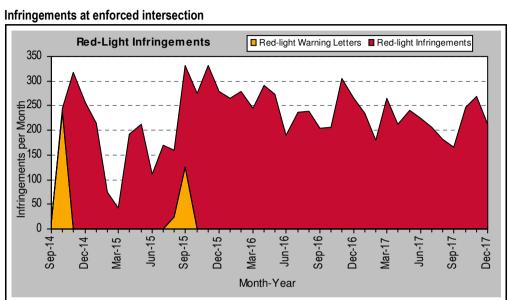
<sup>&</sup>lt;sup>1</sup> Ending 91 days before the start of the warning letter period, 1 July 2014

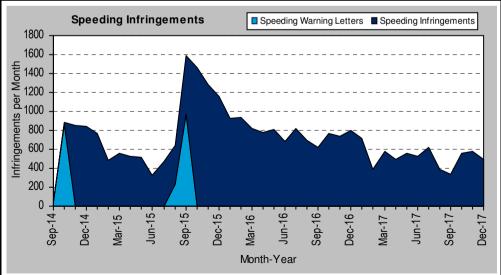
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.





#### 7296 Darlinghurst - William Street at Crown Street

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of William Street and Crown Street commenced issuing warning letters in October 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

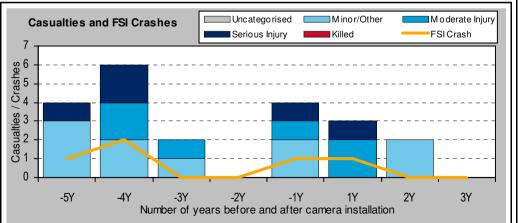
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 76 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	1	↓ 61%
Moderate Injuries	4	2	↓ 22%
Minor / Other Injuries	8	2	↓ 61%
Total Casualties:	16	5	↓ 51%
Pedestrian Casualties	2	2	↑ 56%
Fatal and Serious Crashes	4	1	↓ 61%
Casualty Crashes	15	5	↓ 48%
Adjacent Casualty Crashes	4	0	↓ 100%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	0	1	Increase

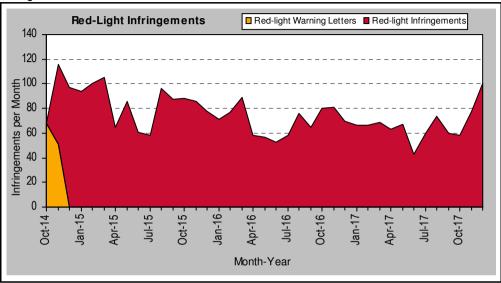
<sup>1</sup> Ending 91 days before the start of the warning letter period, 17 July 2014

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7312 Dean Park - Richmond Road at M7 Motorway southbound on-ramp

• There is one camera at this intersection.

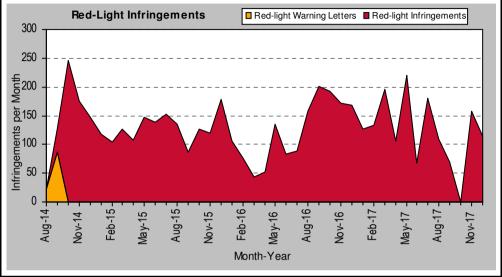
• The camera at the intersection of Richmond Road and M7 Motorway on ramp (Southbound) commenced issuing warning letters in August 2014. This camera enforces red-light running only.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	3	↓ 25%
Moderate Injuries	3	0	↓ 100%
Minor / Other Injuries	9	1	↓ 83%
Total Casualties:	18	4	↓ 67%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	3	↓ 10%
Casualty Crashes	15	4	↓ 60%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	13	2	↓ 77%
Rear End Casualty Crashes	0	2	Increase

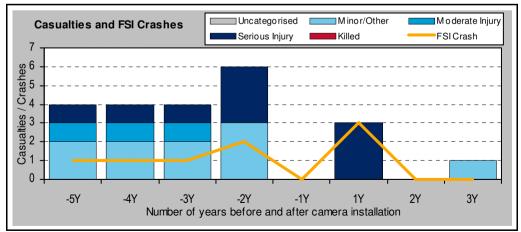
## Infringements at enforced intersection



<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2014

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.

#### 7194 Dee Why - Pittwater Road at Harbord Road

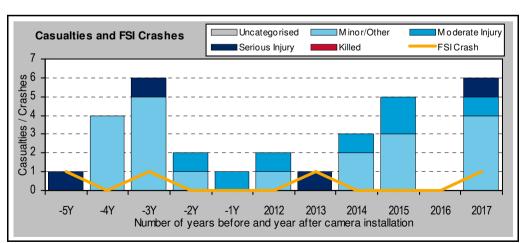
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Pittwater Road and Harbord Road commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

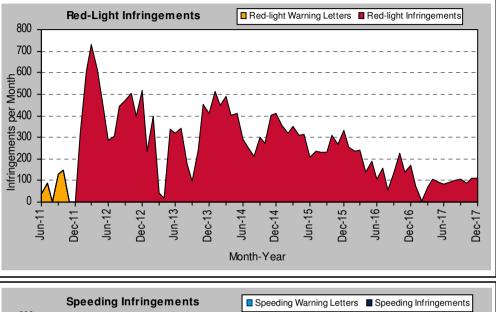
#### Casualties and casualty crashes at enforced intersection

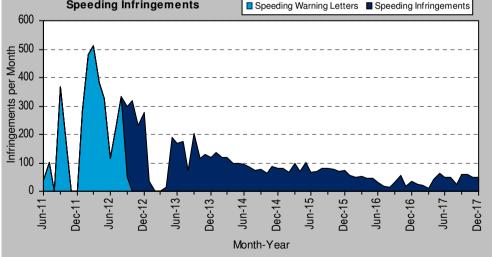
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	2	↓ 0%
Moderate Injuries	2	4	↑ 100%
Minor / Other Injuries	10	9	↓ 10%
Total Casualties:	14	15	↑ 7%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	2	↓ 0%
Casualty Crashes	13	12	↓ 8%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	0	2	Increase
Rear End Casualty Crashes	8	5	↓ 38%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 28 March 2011  $^{\rm 2}$  Ending 31 December 2017



### Infringements at enforced intersection





Status: Retain.

#### 7330 Drummoyne - Victoria Road at Lyons Road

- There is one camera at this intersection.
- The camera at the intersection of Victoria Road and Lyons Road commenced issuing warning letters in October 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

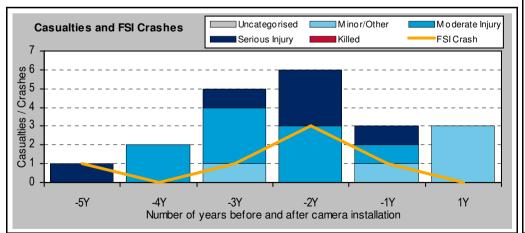
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 85 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	0	↓ 100%
Moderate Injuries	9	0	↓ 100%
Minor / Other Injuries	2	3	↑ 509%
Total Casualties:	17	3	↓ 28%
Pedestrian Casualties	10	1	↓ 59%
Fatal and Serious Crashes	6	0	↓ 100%
Casualty Crashes	15	3	↓ 19%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	2	2	↑ 306%

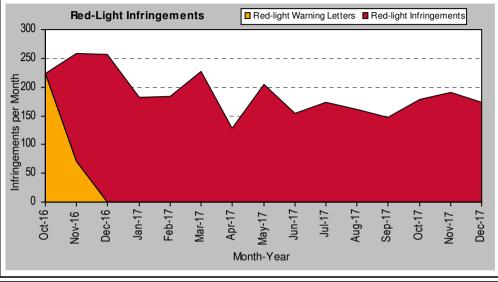
<sup>1</sup> Ending 91 days before the start of the warning letter period, 8 July 2016

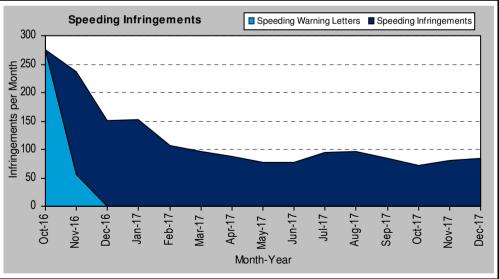
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7319 Eastern Creek - Great Western Highway at Rooty Hill Road South

- There is one camera at this intersection.
- The camera at the intersection of Great Western Highway and Rooty Hill Road South commenced issuing warning letters in October 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

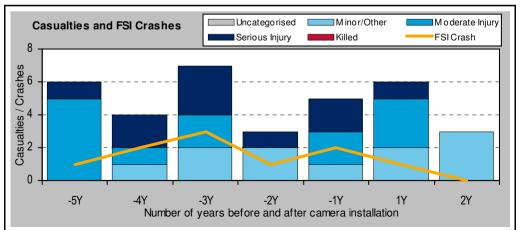
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 85 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	9	1	↓ 75%
Moderate Injuries	10	3	↓ 33%
Minor / Other Injuries	6	6	↑ 124%
Total Casualties:	25	10	↓ 10%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	9	0	↓ 100%
Casualty Crashes	17	8	↑ 5%
Adjacent Casualty Crashes	3	1	↓ 25%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	5	5	↑ 124%

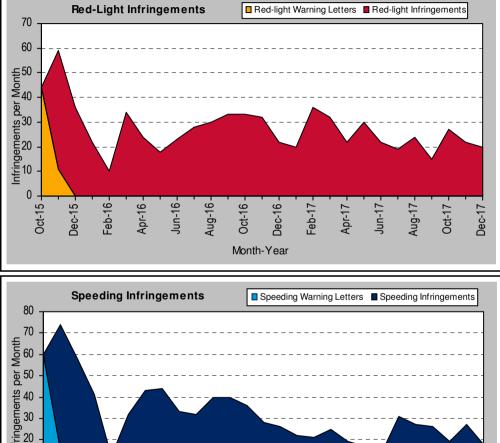
<sup>1</sup> Ending 91 days before the start of the warning letter period, 9 July 2015

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection



20 10 0

Oct-15.

Feb-16 -

Apr-16 .

Jun-16.

Aug-16.

Oct-16 .

Dec-16 .

Month-Year

Feb-17

Apr-17

Jun-17

Aug-17

Oct-17

Dec-15.

Status: Insufficient data (<5 years) to reliably assess.

Dec-17

#### 7200 Eastwood - Blaxland Road at May Street

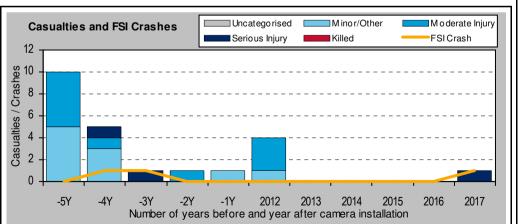
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Blaxland Road and May Street commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

#### Casualties and casualty crashes at enforced intersection

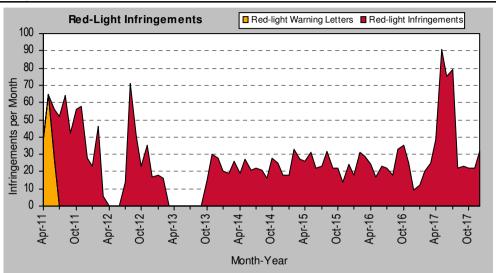
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	1	↓ 50%
Moderate Injuries	7	0	↓ 100%
Minor / Other Injuries	9	0	↓ 100%
Total Casualties:	18	1	↓ 94%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	12	1	↓ 92%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	7	1	↓ 86%
Rear End Casualty Crashes	2	0	↓ 100%

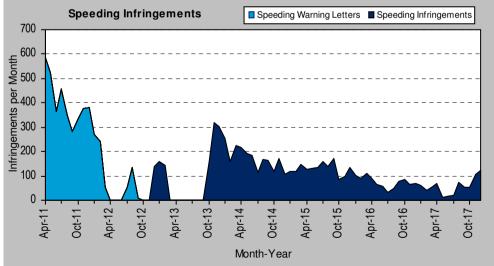
<sup>1</sup> Ending 91 days before the start of the warning letter period, 7 January 2011 <sup>2</sup> Ending 31 December 2017











#### 7301 Eastwood - Rutledge Street at Shaftsbury Road (school zone)

- There is one camera at this intersection.
- The camera at the intersection of Rutledge Street and Shaftsbury Road commenced issuing warning letters in July 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

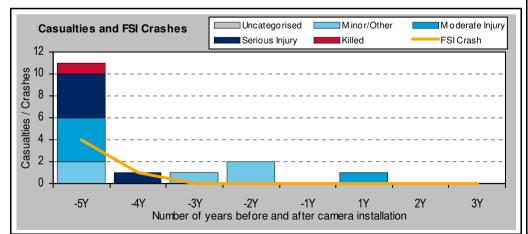
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 170 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	1	0	↓ 100%
Serious Injuries	5	0	↓ 100%
Moderate Injuries	4	1	↓ 64%
Minor / Other Injuries	5	0	↓ 100%
Total Casualties:	15	1	↓ 90%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	9	1	↓ 84%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	2	1	↓ 28%
Rear End Casualty Crashes	1	0	↓ 100%

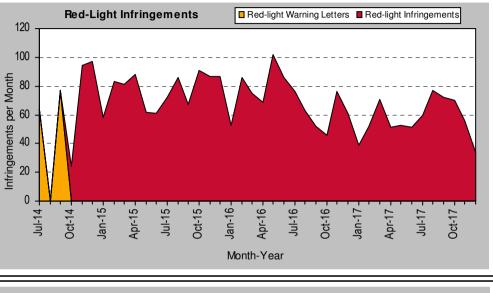
<sup>1</sup> Ending 91 days before the start of the warning letter period, 14 April 2014

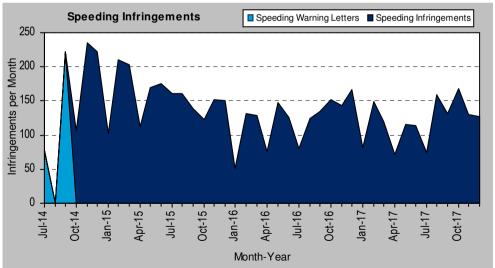
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.









#### 7303 Epping - Carlingford Road at Rawson Street

- There is one camera at this intersection.
- The camera at the intersection of Carlingford Road and Rawson Street commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

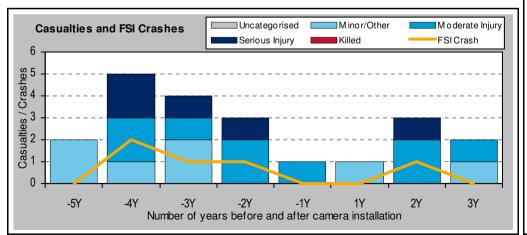
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	1	↓ 63%
Moderate Injuries	6	3	↓ 25%
Minor / Other Injuries	5	2	↓ 40%
Total Casualties:	15	6	↓ 40%
Pedestrian Casualties	5	1	↓ 70%
Fatal and Serious Crashes	4	1	↓ 63%
Casualty Crashes	14	6	↓ 36%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	5	0	↓ 100%
Rear End Casualty Crashes	2	1	↓ 25%

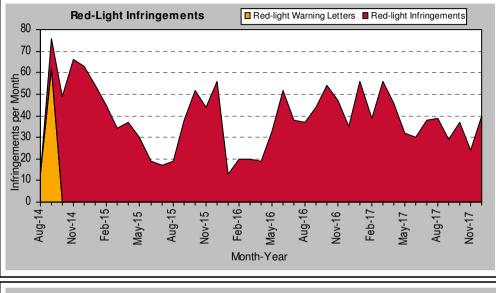
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2014

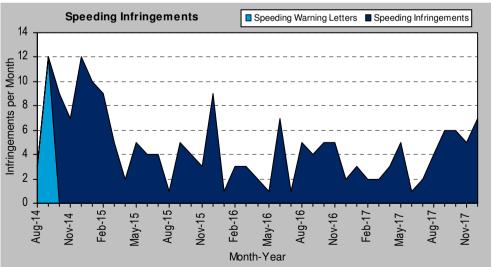
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7298 Ermington - Victoria Road at Spurway Street

- There is one camera at this intersection.
- The camera at the intersection of Victoria Road and Spurway Street commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

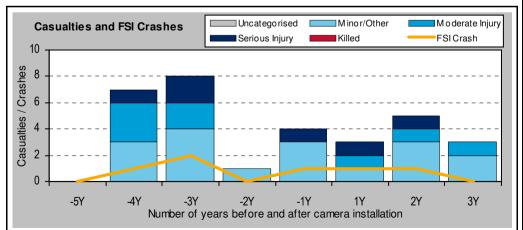
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	3	↑ 12%
Moderate Injuries	5	4	↑ 20%
Minor / Other Injuries	11	6	↓ 18%
Total Casualties:	20	13	↓ 3%
Pedestrian Casualties	3	2	↓ 0%
Fatal and Serious Crashes	4	3	↑ 12%
Casualty Crashes	18	13	↑ 8%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	10	3	↓ 55%
Rear End Casualty Crashes	0	3	Increase

<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2014

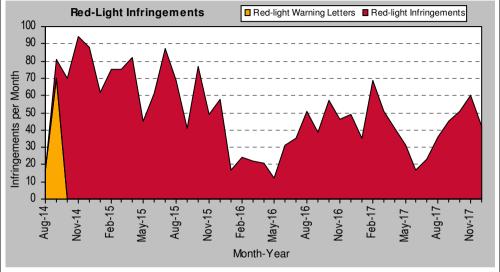
<sup>2</sup> Ending 31 December 2017

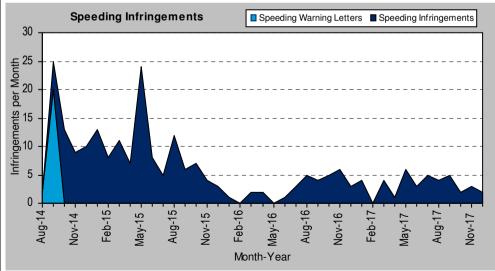
<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.

# Infringements at enforced intersection Red-Light Infringements Red-light





#### 7314 Fairfield - Hamilton Road at Sackville Street

- There is one camera at this intersection.
- The camera at the intersection of Sackville Street and Hamilton Road commenced issuing warning letters in January 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

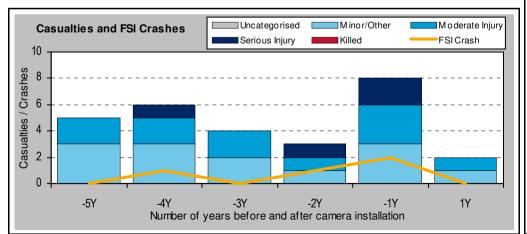
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 351 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	0	↓ 100%
Moderate Injuries	10	1	↓ 74%
Minor / Other Injuries	12	3	↓ 36%
Total Casualties:	26	4	↓ 61%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	18	4	↓ 43%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	5	0	↓ 100%
Rear End Casualty Crashes	3	0	↓ 100%

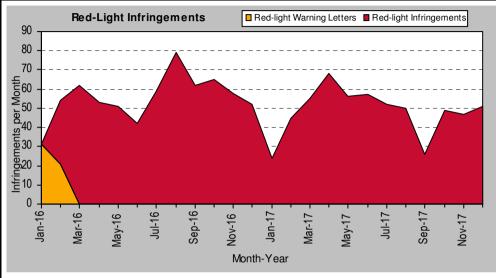
<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 October 2015

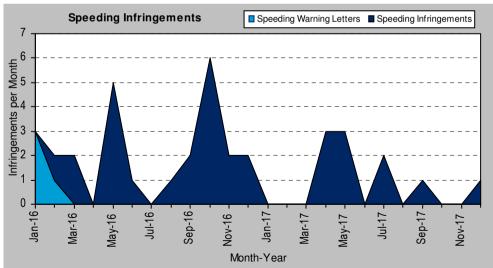
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7166 Fairfield - Hamilton Road at The Boulevarde

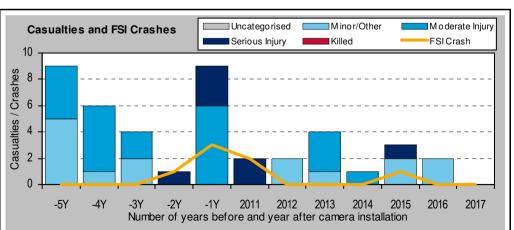
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Hamilton Road and The Boulevarde commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

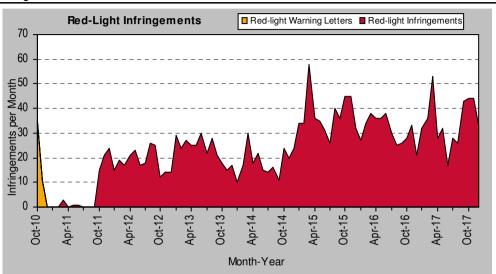
#### Casualties and casualty crashes at enforced intersection

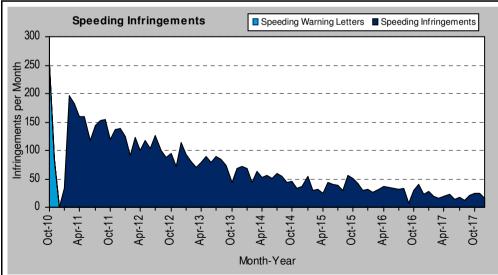
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	1	↓ 75%
Moderate Injuries	17	4	↓ 76%
Minor / Other Injuries	8	5	↓ 38%
Total Casualties:	29	10	↓ 66%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	4	1	↓ 75%
Casualty Crashes	19	8	↓ 58%
Adjacent Casualty Crashes	2	1	↓ 50%
Right Through Casualty Crashes	13	5	↓ 62%
Rear End Casualty Crashes	0	1	Increase

 $^1$  Ending 91 days before the start of the warning letter period, 12 July 2010  $^2$  Ending 31 December 2017



Status: Retain.





#### 7279 Fairfield - The Horsley Drive at Polding Street

- There is one camera at this intersection.
- The camera at the intersection of The Horsley Drive and Polding Street commenced issuing warning letters in September 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

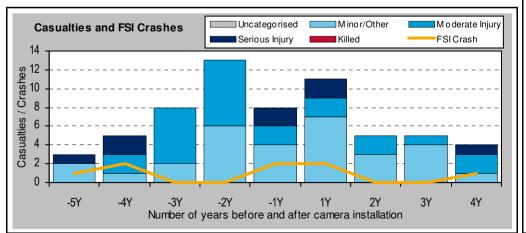
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 96 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	3	↓ 30%
Moderate Injuries	17	7	↓ 52%
Minor / Other Injuries	15	17	↑ 33%
Total Casualties:	37	27	↓ 14%
Pedestrian Casualties	1	1	↑ 17%
Fatal and Serious Crashes	5	3	↓ 30%
Casualty Crashes	27	24	↑ 4%
Adjacent Casualty Crashes	4	0	↓ 100%
Right Through Casualty Crashes	15	8	↓ 37%
Rear End Casualty Crashes	4	8	↑ 135%

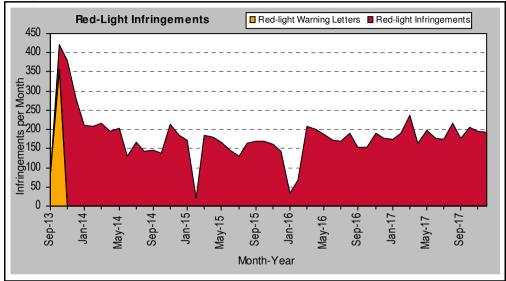
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 June 2013

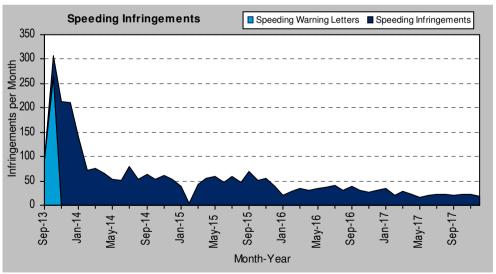
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7219 Figtree - Princes Highway at O'Briens Road

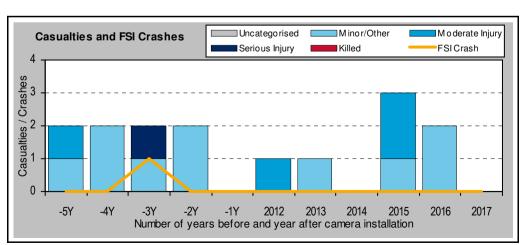
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Princes Highway and O'Briens Road commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

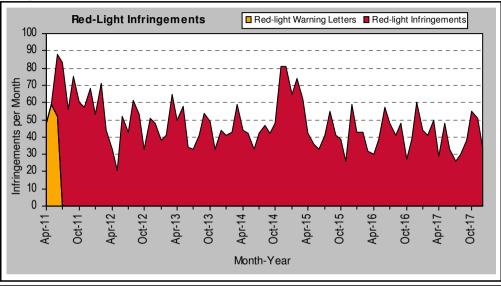
## Casualties and casualty crashes at enforced intersection

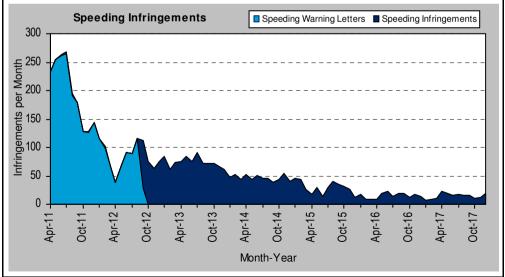
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	0	↓ 100%
Moderate Injuries	1	2	↑ 100%
Minor / Other Injuries	6	4	↓ 33%
Total Casualties:	8	6	↓ 25%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	0	↓ 100%
Casualty Crashes	7	4	↓ 43%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	2	1	↓ 50%
Rear End Casualty Crashes	2	3	↑ 50%

 $^1$  Ending 91 days before the start of the warning letter period, 17 January 2011  $^2$  Ending 31 December 2017



## Infringements at enforced intersection





Status: Retain.

## 7186 Five Dock - Fairlight Street at Ramsay Road

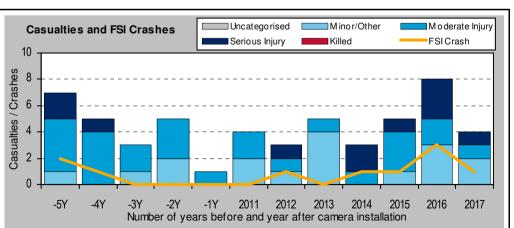
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Fairlight Street and Ramsay Road commenced issuing warning letters in November 2010.

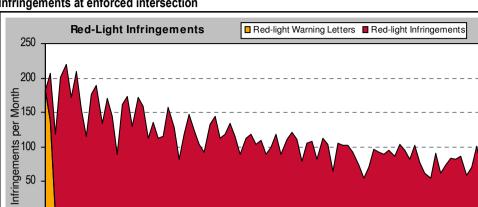
• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	3	7	↑ 133%
Moderate Injuries	14	8	↓ 43%
Minor / Other Injuries	4	10	↑ 150%
Total Casualties:	21	25	↑ 19%
Pedestrian Casualties	2	1	↓ 50%
Fatal and Serious Crashes	3	6	↑ 100%
Casualty Crashes	15	20	↑ 33%
Adjacent Casualty Crashes	6	6	↓ 0%
Right Through Casualty Crashes	1	1	↓ 0%
Rear End Casualty Crashes	1	1	↓ 0%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 12 August 2010 <sup>2</sup> Ending 31 December 2017





Nov-12

May-12

May-13

Nov-13

May-14

Month-Year

Nov-14

May-15

Nov-15

May-16

Nov-16

May-17

Nov-17

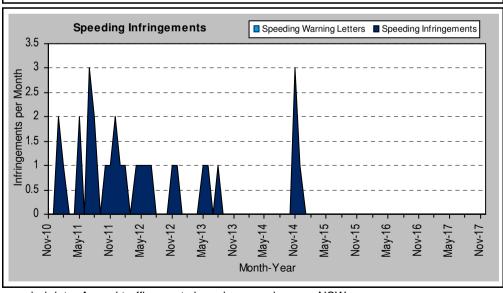
#### Infringements at enforced intersection

0

Nov-10

May-11

Nov-11



Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

## 7241 Five Dock - Parramatta Road at Arlington Street

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Parramatta Road and Arlington Street commenced issuing warning letters in April 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

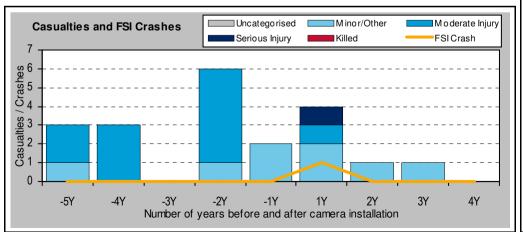
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 263 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	0	1	Increase
Moderate Injuries	10	1	↓ 89%
Minor / Other Injuries	4	4	↑ 6%
Total Casualties:	14	6	↓ 55%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	0	1	Increase
Casualty Crashes	13	5	↓ 59%
Adjacent Casualty Crashes	6	2	↓ 65%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	3	1	↓ 65%

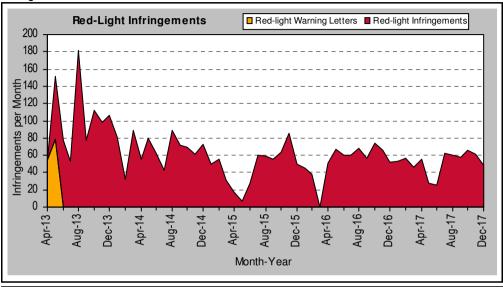
<sup>1</sup> Ending 91 days before the start of the warning letter period, 11 January 2013

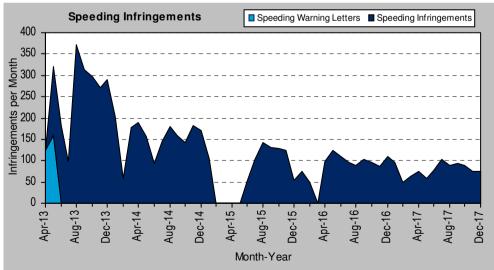
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7311 Glenwood - Old Windsor Road at Sunnyholt Road

- There is one camera at this intersection.
- The camera at the intersection of Old Windsor Road and Sunnyholt Road commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

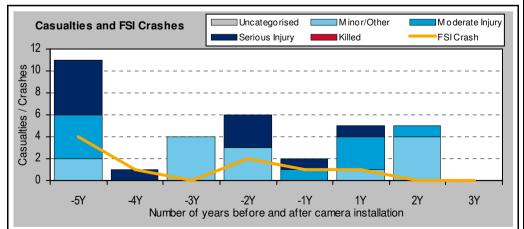
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 137 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	10	1	↓ 85%
Moderate Injuries	5	5	↑ 48%
Minor / Other Injuries	9	5	↓ 18%
Total Casualties:	24	11	↓ 32%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	8	1	↓ 81%
Casualty Crashes	18	10	↓ 18%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	4	0	↓ 100%
Rear End Casualty Crashes	5	6	↑ 78%

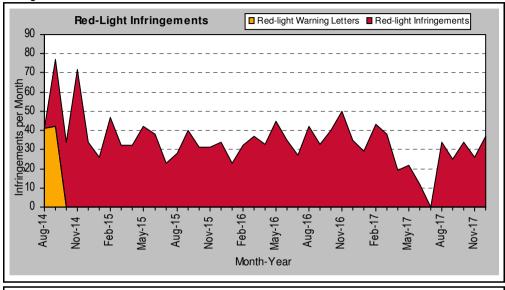
<sup>1</sup> Ending 91 days before the start of the warning letter period, 17 May 2014

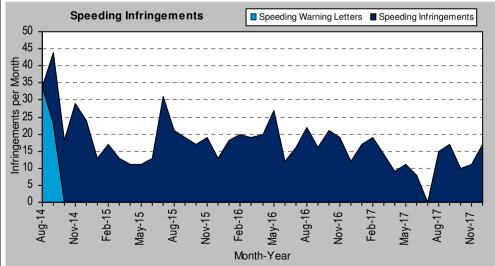
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7242 Granville - Parramatta Road at Good Street

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Parramatta Road and Good Street commenced issuing warning letters in February 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

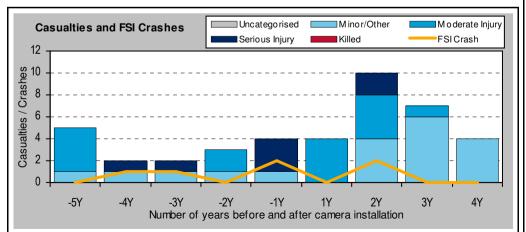
## Casualties and casualty crashes at enforced intersection

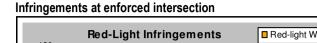
	5 years before installation <sup>1</sup>	4 years and 308 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	4	↓ 17%
Moderate Injuries	6	10	↑ 72%
Minor / Other Injuries	5	16	↑ 230%
Total Casualties:	16	30	↑ 94%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	4	4	↑ 3%
Casualty Crashes	12	24	↑ 107%
Adjacent Casualty Crashes	4	4	↑ 3%
Right Through Casualty Crashes	5	6	↑ 24%
Rear End Casualty Crashes	2	10	↑ 416%

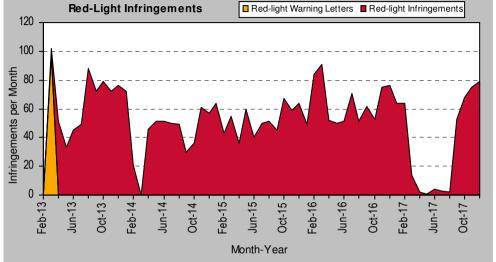
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 November 2012

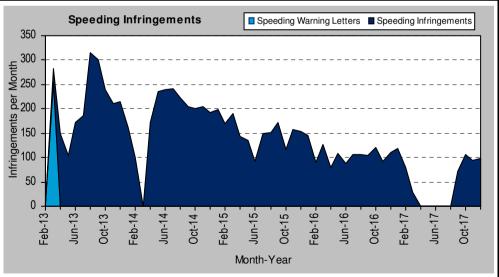
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.









## 7144 Granville - Woodville Road at M4 westbound on-ramp

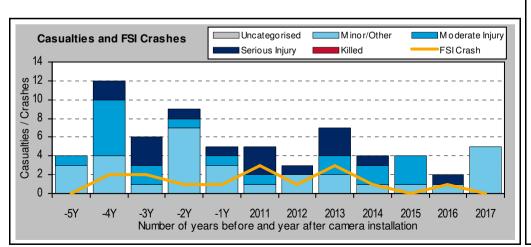
- There is one camera at this intersection.
- The camera at the intersection of Woodville Road and M4 on ramp commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

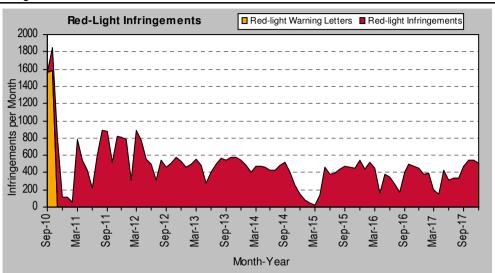
#### Casualties and casualty crashes at enforced intersection

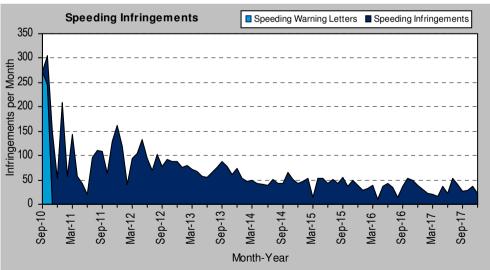
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	7	5	↓ 29%
Moderate Injuries	11	7	↓ 36%
Minor / Other Injuries	18	10	↓ 44%
Total Casualties:	36	22	↓ 39%
Pedestrian Casualties	1	1	↓ 0%
Fatal and Serious Crashes	6	5	↓ 17%
Casualty Crashes	23	21	↓ 9%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	6	1	↓ 83%
Rear End Casualty Crashes	4	11	↑ 175%

 $^{1}$  Ending 91 days before the start of the warning letter period, 10 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





#### 7322 Greenacre - Juno Parade at Roberts Road

- There is one camera at this intersection.
- The camera at the intersection of Roberts Road and Juno Parade commenced issuing warning letters in June 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

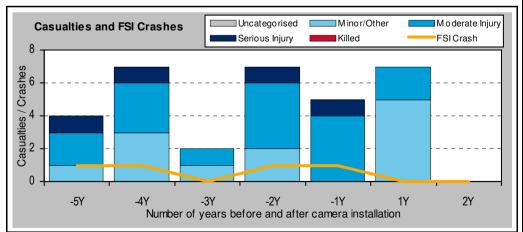
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 185 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	0	↓ 100%
Moderate Injuries	14	2	↓ 71%
Minor / Other Injuries	7	5	↑ 43%
Total Casualties:	25	7	↓ 44%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	17	7	↓ 18%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	2	1	↓ 0%
Rear End Casualty Crashes	7	5	↑ 43%

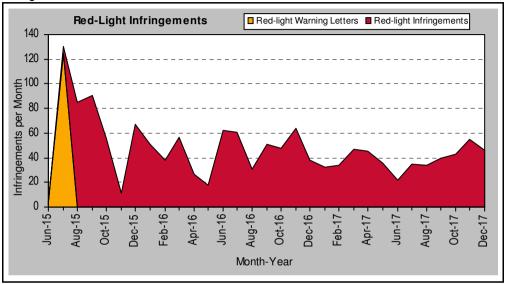
<sup>1</sup> Ending 91 days before the start of the warning letter period, 31 March 2015

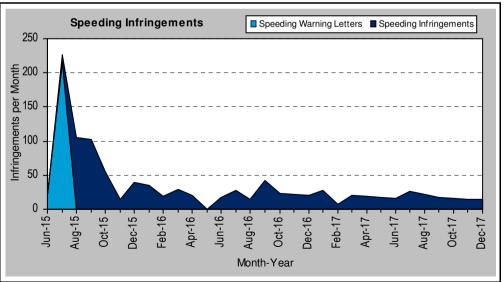
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7335 Grevstanes - Cumberland Highway at Merrylands Road

- There is one camera at this intersection.
- The camera at the intersection of Cumberland Highway and Merrylands Road commenced issuing warning letters in September 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

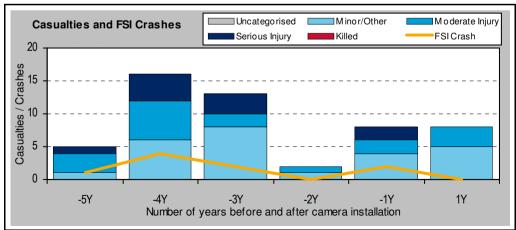
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 107 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	10	0	↓ 100%
Moderate Injuries	14	3	↓ 17%
Minor / Other Injuries	20	5	↓ 3%
Total Casualties:	44	8	↓ 30%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	9	0	↓ 100%
Casualty Crashes	32	7	↓ 15%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	8	1	↓ 52%
Rear End Casualty Crashes	10	2	↓ 23%

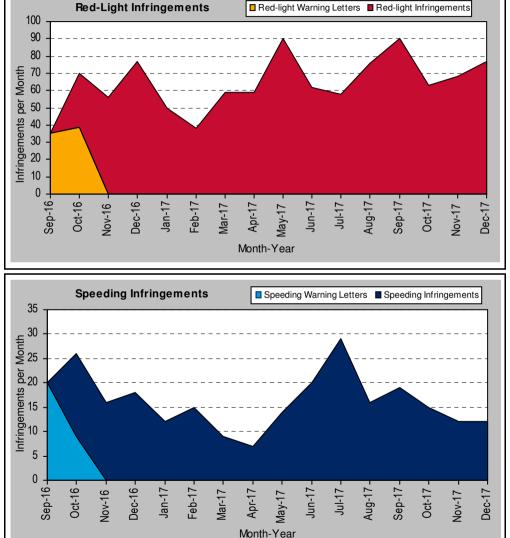
<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 June 2016

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



#### Infringements at enforced intersection



Red-light Warning Letters Red-light Infringements

Status: Insufficient data (<5 years) to reliably assess.

### 7173 Guildford - Woodville Road at Guildford Road

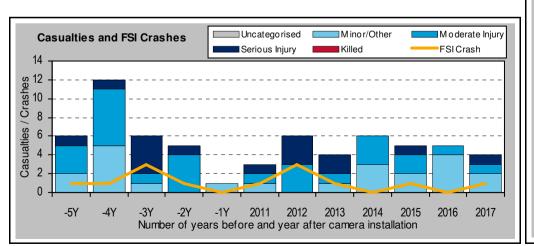
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Woodville Road and Guildford Road commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

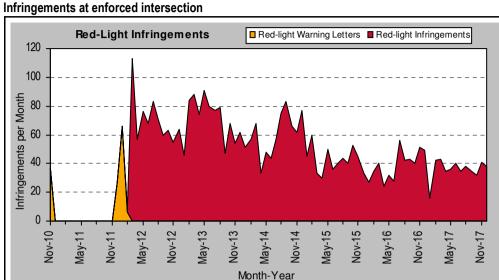
### Casualties and casualty crashes at enforced intersection

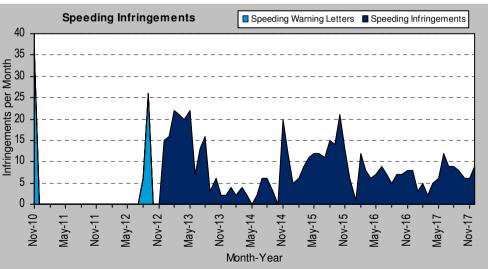
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	7	4	↓ 43%
Moderate Injuries	14	8	↓ 43%
Minor / Other Injuries	9	12	↑ 33%
Total Casualties:	30	24	↓ 20%
Pedestrian Casualties	2	1	↓ 50%
Fatal and Serious Crashes	6	3	↓ 50%
Casualty Crashes	21	16	↓ 24%
Adjacent Casualty Crashes	6	2	↓ 67%
Right Through Casualty Crashes	3	2	↓ 33%
Rear End Casualty Crashes	5	9	↑ 80%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 12 August 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





### 7171 Haberfield - Dobroyd Parade at Mortley Avenue

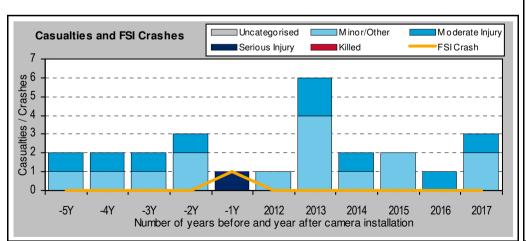
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Dobroyd Parade and Mortley Avenue commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

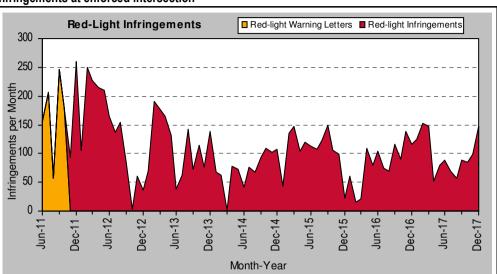
## Casualties and casualty crashes at enforced intersection

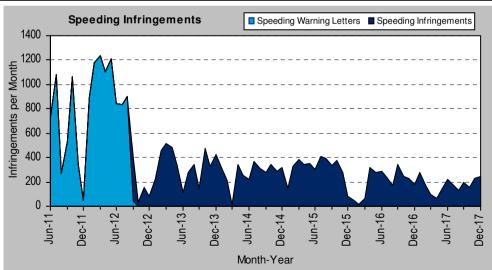
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	0	↓ 100%
Moderate Injuries	4	5	↑ 25%
Minor / Other Injuries	5	9	↑ 80%
Total Casualties:	10	14	↑ 40%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	0	↓ 100%
Casualty Crashes	9	13	↑ 44%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	4	2	↓ 50%
Rear End Casualty Crashes	3	10	↑ 233%

 $^{\rm 1}$  Ending 530 days before the start of the warning letter period, 1 January 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





#### 7210 Haberfield - Parramatta Road at Sloane Street

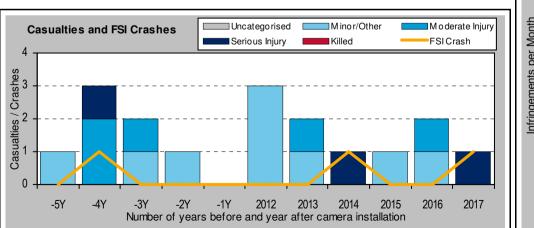
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Parramatta Road and Sloane Street commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

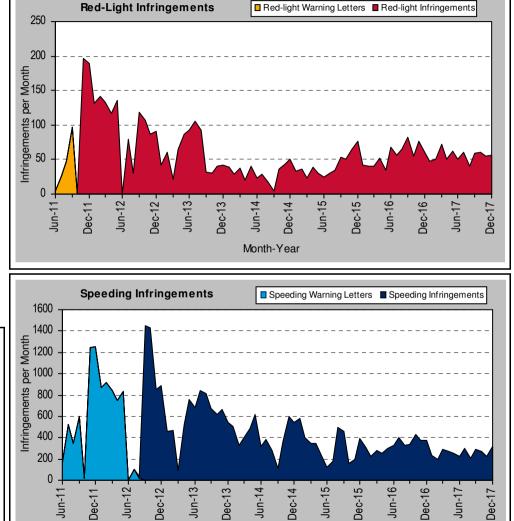
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	2	↑ 100%
Moderate Injuries	3	2	↓ 33%
Minor / Other Injuries	3	3	↓ 0%
Total Casualties:	7	7	↓ 0%
Pedestrian Casualties	1	1	↓ 0%
Fatal and Serious Crashes	1	2	↑ 100%
Casualty Crashes	5	7	↑ 40%
Adjacent Casualty Crashes	0	1	Increase
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	2	3	↑ 50%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 28 March 2011  $^{\rm 2}$  Ending 31 December 2017



### Infringements at enforced intersection



Month-Year

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

## 7240 Haberfield - Ramsay Street at Wattle Street

- There is one camera at this intersection.
- The camera at the intersection of Ramsay Street and Wattle Street commenced issuing warning letters in February 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

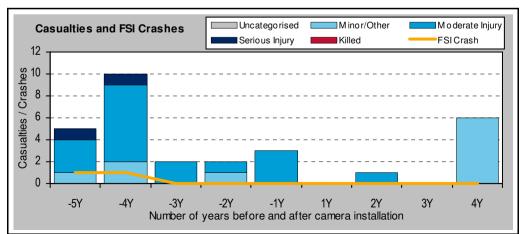
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 308 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	1	↓ 48%
Moderate Injuries	16	1	↓ 94%
Minor / Other Injuries	4	7	↑ 81%
Total Casualties:	22	9	↓ 58%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	1	↓ 48%
Casualty Crashes	15	9	↓ 38%
Adjacent Casualty Crashes	11	3	↓ 72%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	2	5	↑ 158%

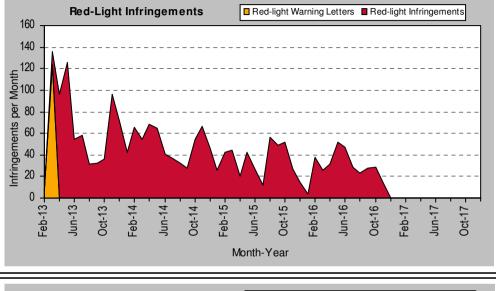
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 November 2012

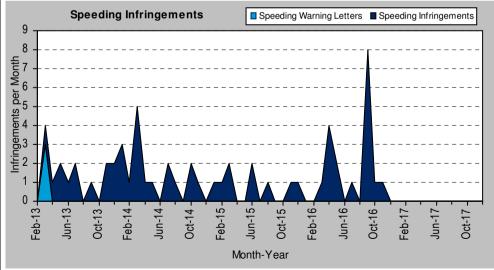
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7215 Hamilton - Tudor Street at Beaumont Street

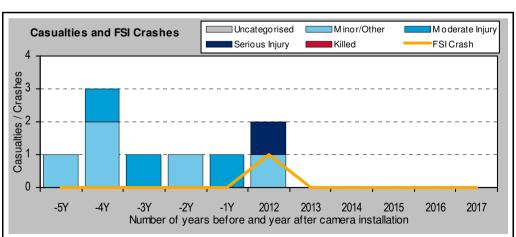
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Tudor Street and Beaumont Street commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

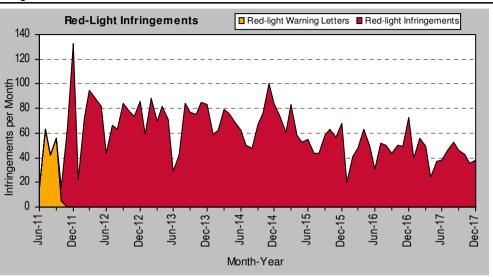
## Casualties and casualty crashes at enforced intersection

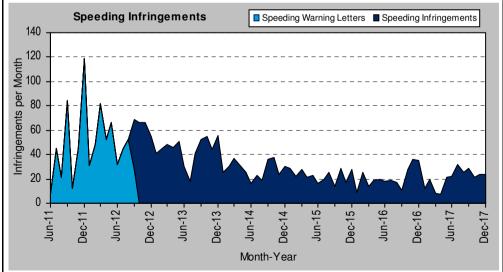
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	0	0	-
Moderate Injuries	3	0	↓ 100%
Minor / Other Injuries	4	0	↓ 100%
Total Casualties:	7	0	↓ 100%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	0	0	-
Casualty Crashes	6	0	↓ 100%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	2	0	↓ 100%

 $^{1}$  Ending 91 days before the start of the warning letter period, 28 March 2011  $^{2}$  Ending 31 December 2017



Status: Retain.





## 7212 Hamilton East - Pacific Highway at Parry Street

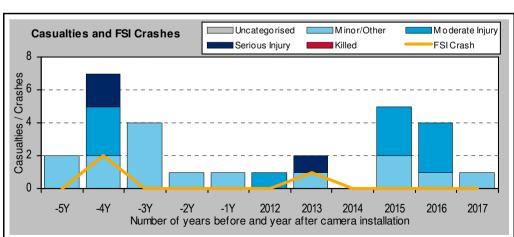
- There is one camera at this intersection.
- The camera at the intersection of Pacific Highway and Parry Street commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

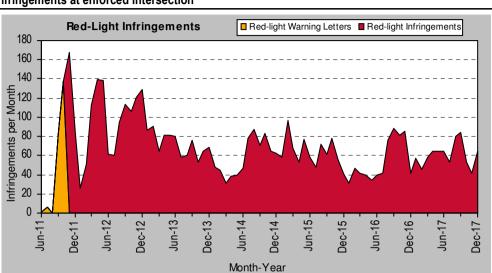
#### Casualties and casualty crashes at enforced intersection

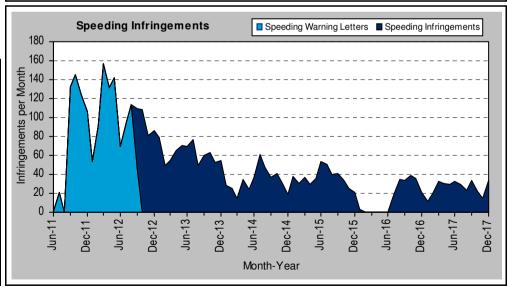
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	1	↓ 50%
Moderate Injuries	3	6	↑ 100%
Minor / Other Injuries	10	5	↓ 50%
Total Casualties:	15	12	↓ 20%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	12	7	↓ 42%
Adjacent Casualty Crashes	5	0	↓ 100%
Right Through Casualty Crashes	1	2	↑ 100%
Rear End Casualty Crashes	3	2	↓ 33%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 March 2011 <sup>2</sup> Ending 31 December 2017



Status: Retain.





## 7243|7244 Haymarket - George Street at Pitt Street / Quay Street

- There are two cameras at this intersection.
- Both cameras at the intersection of George Street and Pitt Street commenced issuing warning letters in June 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

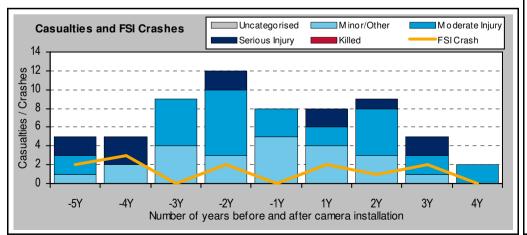
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 192 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	7	5	↓ 21%
Moderate Injuries	17	11	↓ 29%
Minor / Other Injuries	15	8	↓ 41%
Total Casualties:	39	24	↓ 32%
Pedestrian Casualties	15	5	↓ 63%
Fatal and Serious Crashes	7	5	↓ 21%
Casualty Crashes	33	20	↓ 33%
Adjacent Casualty Crashes	4	4	↑ 10%
Right Through Casualty Crashes	2	1	↓ 45%
Rear End Casualty Crashes	3	3	↑ 10%

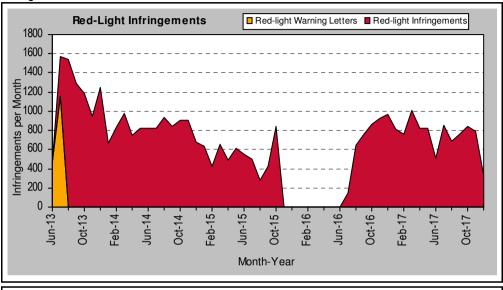
<sup>1</sup> Ending 91 days before the start of the warning letter period, 23 March 2013

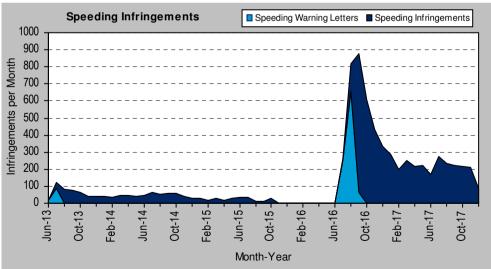
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

### 7326 Homebush West - Homebush Bay Drive at M4 eastbound on-ramp

- There is one camera at this intersection.
- The camera at the intersection of Homebush Bay Drive and M4 Western Motorway On-ramp (Eastbound) commenced issuing warning letters in April 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

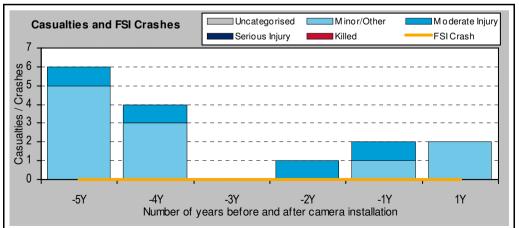
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 262 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	0	0	-
Moderate Injuries	4	0	↓ 100%
Minor / Other Injuries	9	3	↓ 3%
Total Casualties:	13	3	↓ 33%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	0	0	-
Casualty Crashes	10	3	↓ 13%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	6	0	↓ 100%
Rear End Casualty Crashes	3	2	↑ 94%

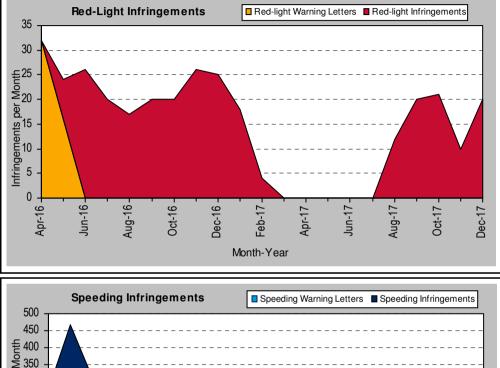
<sup>1</sup> Ending 91 days before the start of the warning letter period, 13 January 2016

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7204 Hunters Hill - Ryde Road at Pittwater Road

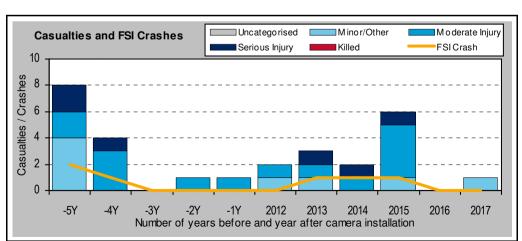
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Ryde Road and Pittwater Road commenced issuing warning letters in March 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

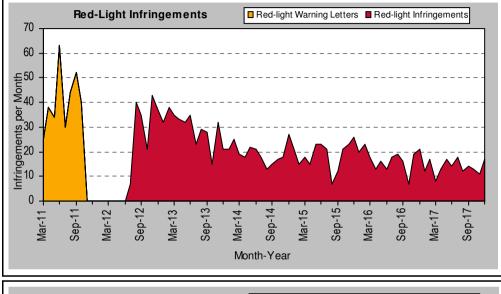
## Casualties and casualty crashes at enforced intersection

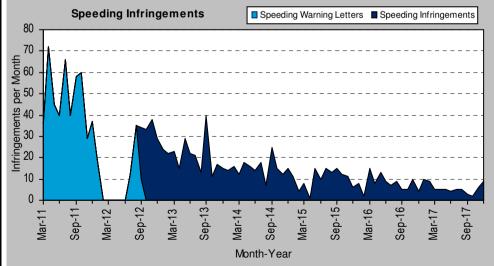
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	3	3	↓ 0%
Moderate Injuries	7	6	↓ 14%
Minor / Other Injuries	4	3	↓ 25%
Total Casualties:	14	12	↓ 14%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	3	3	↓ 0%
Casualty Crashes	10	8	↓ 20%
Adjacent Casualty Crashes	0	1	Increase
Right Through Casualty Crashes	8	3	↓ 63%
Rear End Casualty Crashes	2	3	↑ 50%

 $^{1}$  Ending 91 days before the start of the warning letter period, 17 December 2010  $^{2}$  Ending 31 December 2017



Infringements at enforced intersection





Status: Retain.

#### 7208 Kensington - Anzac Parade at Todman Avenue

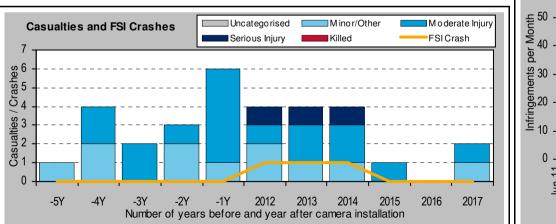
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Anzac Parade and Todman Avenue commenced issuing warning letters in June 2011.

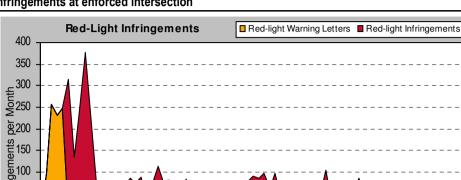
• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

#### Casualties and casualty crashes at enforced intersection

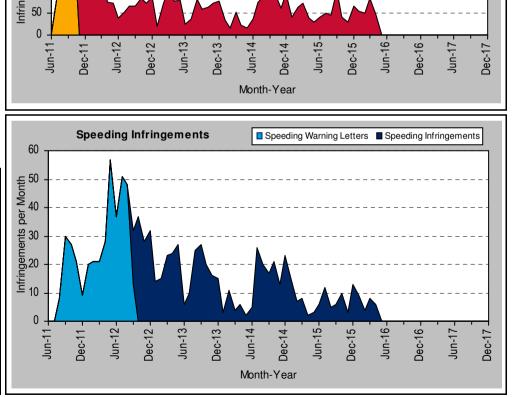
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	0	2	Increase
Moderate Injuries	10	6	↓ 40%
Minor / Other Injuries	6	3	↓ 50%
Total Casualties:	16	11	↓ 31%
Pedestrian Casualties	4	0	↓ 100%
Fatal and Serious Crashes	0	2	Increase
Casualty Crashes	13	10	↓ 23%
Adjacent Casualty Crashes	2	2	↓ 0%
Right Through Casualty Crashes	3	4	↑ 33%
Rear End Casualty Crashes	3	0	↓ 100%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 March 2011 <sup>2</sup> Ending 31 December 2017





#### Infringements at enforced intersection



#### Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

### 7206 Kingsgrove - Bexley Road at William Street

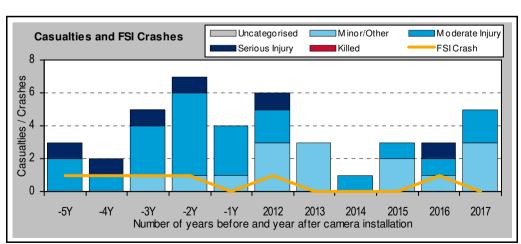
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Bexley Road and William Street commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

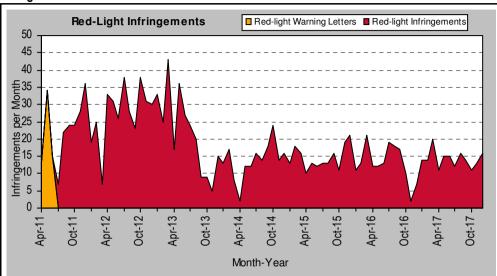
## Casualties and casualty crashes at enforced intersection

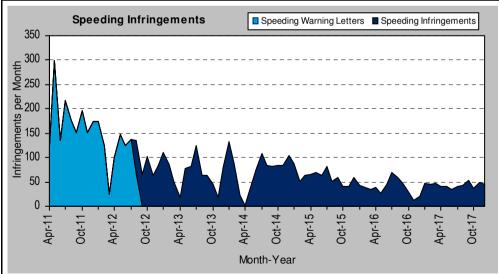
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	1	↓ 75%
Moderate Injuries	14	5	↓ 64%
Minor / Other Injuries	3	9	↑ 200%
Total Casualties:	21	15	↓ 29%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	1	↓ 75%
Casualty Crashes	16	13	↓ 19%
Adjacent Casualty Crashes	1	1	↓ 0%
Right Through Casualty Crashes	10	5	↓ 50%
Rear End Casualty Crashes	3	5	↑ 67%

 $^1$  Ending 91 days before the start of the warning letter period, 10 January 2011  $^2$  Ending 31 December 2017









## 7278 Kingsgrove - Kingsgrove Road at Forsyth Street

- There is one camera at this intersection.
- The camera at the intersection of Kingsgrove Road and Forsyth Street commenced issuing warning letters in November 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

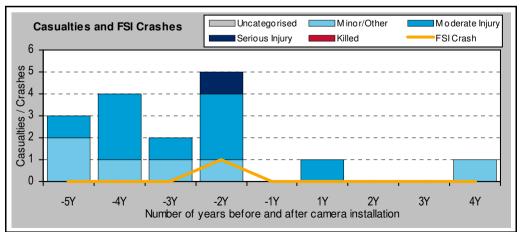
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 46 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	0	↓ 100%
Moderate Injuries	8	1	↓ 85%
Minor / Other Injuries	5	1	↓ 76%
Total Casualties:	14	2	↓ 83%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	0	↓ 100%
Casualty Crashes	12	2	↓ 80%
Adjacent Casualty Crashes	7	2	↓ 65%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	1	0	↓ 100%

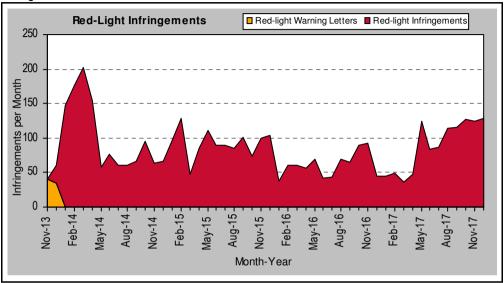
<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 August 2013

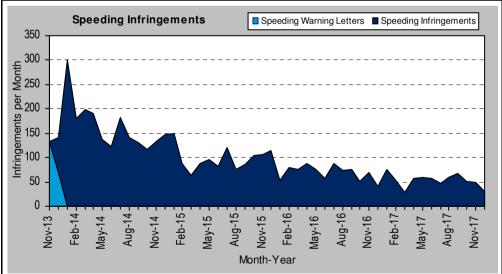
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7320 Kingsgrove - Stoney Creek Road at Patrick Street

- There is one camera at this intersection.
- The camera at the intersection of Stoney Creek Road and Patrick Street commenced issuing warning letters in December 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

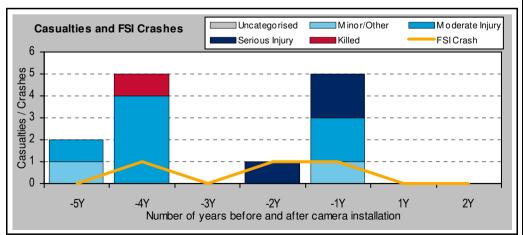
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 13 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	1	0	↓ 100%
Serious Injuries	3	0	↓ 100%
Moderate Injuries	10	0	↓ 100%
Minor / Other Injuries	2	0	↓ 100%
Total Casualties:	16	0	↓ 100%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	3	0	↓ 100%
Casualty Crashes	6	0	↓ 100%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	6	0	↓ 100%
Rear End Casualty Crashes	0	0	-

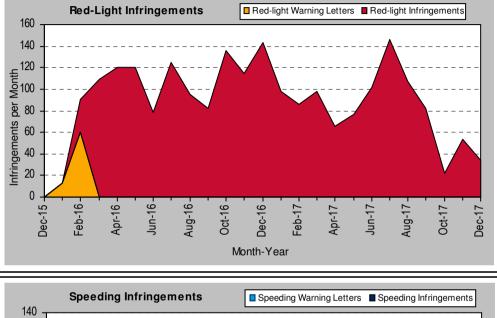
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 September 2015

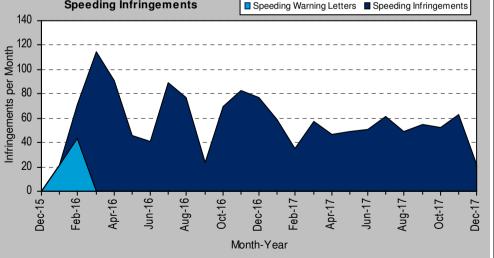
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7198 Kirrawee - Acacia Road at President Avenue

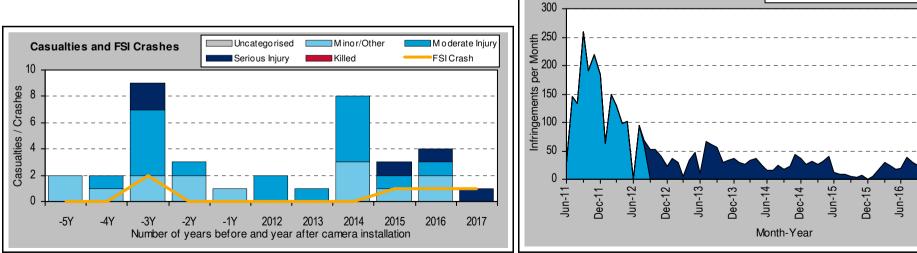
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Acacia Road and President Avenue commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	3	↑ 50%
Moderate Injuries	7	8	↑ 14%
Minor / Other Injuries	8	6	↓ 25%
Total Casualties:	17	17	↓ 0%
Pedestrian Casualties	2	3	↑ 50%
Fatal and Serious Crashes	2	3	↑ 50%
Casualty Crashes	13	16	↑ 23%
Adjacent Casualty Crashes	1	1	↓ 0%
Right Through Casualty Crashes	3	3	↓ 0%
Rear End Casualty Crashes	6	4	↓ 33%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 28 March 2011  $^{\rm 2}$  Ending 31 December 2017



#### Infringements at enforced intersection

Jun-12.

Dec-11

Jun-1

Jun-13

Dec-13

Jun-1

Month-Year

Dec-12

**Speeding Infringements** 

**Red-Light Infringements** 

Red-light Warning Letters Red-light Infringements

Jun-15.

Dec-14

Dec-15

Speeding Warning Letters Speeding Infringements

Jun-16

Dec-16

Dec-16

Jun-17

Dec-17

Jun-1

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

Dec-1

## 7195 Kogarah Bay - Park Road at Princes Highway

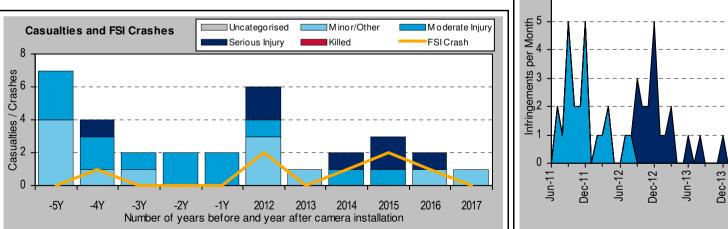
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Park Road and Princes Highway commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

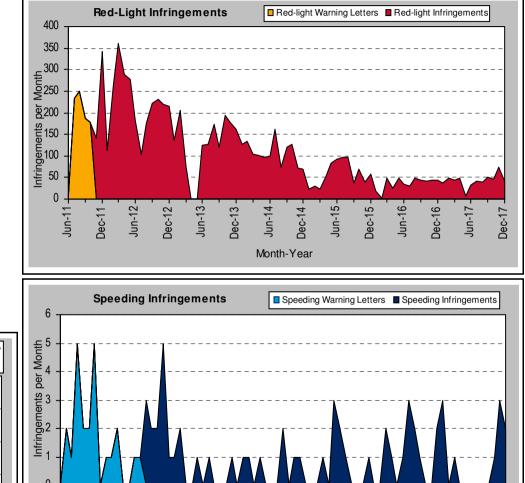
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	4	↑ 300%
Moderate Injuries	10	2	↓ 80%
Minor / Other Injuries	6	3	↓ 50%
Total Casualties:	17	9	↓ 47%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	1	4	↑ 300%
Casualty Crashes	13	7	↓ 46%
Adjacent Casualty Crashes	5	2	↓ 60%
Right Through Casualty Crashes	4	1	↓ 75%
Rear End Casualty Crashes	3	2	↓ 33%

 $^{1}$  Ending 91 days before the start of the warning letter period, 16 March 2011  $^{2}$  Ending 31 December 2017



## Infringements at enforced intersection



Jun-14

Dec-17

Jun-16 -

Dec-15.

Dec-16 -

Jun-17

Jun-15 -

Dec-14

Month-Year

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

## 7271 Lakemba - Punchbowl Road at Wangee Road

- There is one camera at this intersection.
- The camera at the intersection of Punchbowl Road and Wangee Road commenced issuing warning letters in October 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

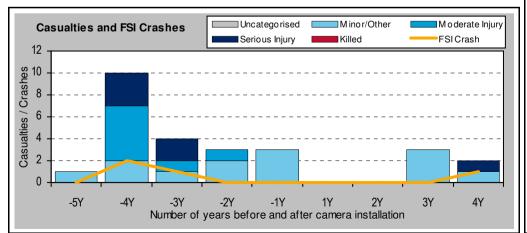
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 74 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	1	↓ 76%
Moderate Injuries	7	0	↓ 100%
Minor / Other Injuries	9	4	↓ 47%
Total Casualties:	21	5	↓ 72%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	3	1	↓ 60%
Casualty Crashes	12	4	↓ 60%
Adjacent Casualty Crashes	7	1	↓ 83%
Right Through Casualty Crashes	3	1	↓ 60%
Rear End Casualty Crashes	1	1	↑ 19%

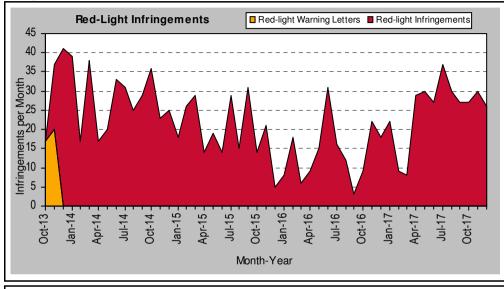
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 July 2013

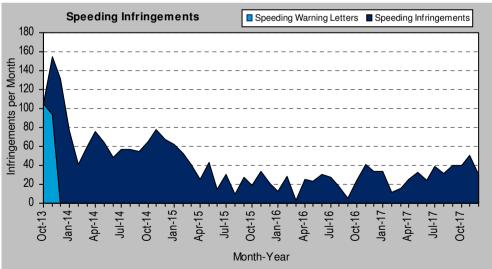
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





#### 7213 Lambton - Griffiths Road at Turton Road

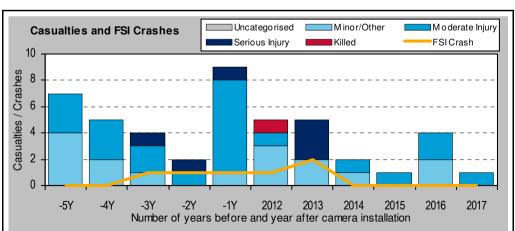
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Griffiths Road and Turton Road commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

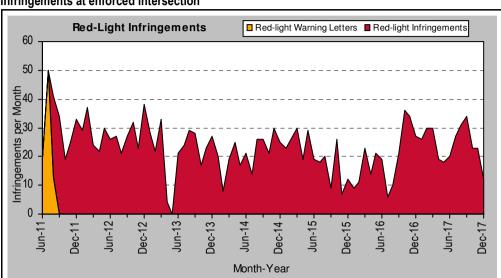
## Casualties and casualty crashes at enforced intersection

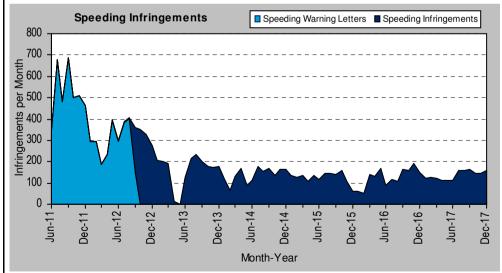
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	3	3	↓ 0%
Moderate Injuries	16	5	↓ 69%
Minor / Other Injuries	8	5	↓ 38%
Total Casualties:	27	13	↓ 52%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	3	2	↓ 33%
Casualty Crashes	19	8	↓ 58%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	3	1	↓ 67%
Rear End Casualty Crashes	8	6	↓ 25%

 $^1$  Ending 91 days before the start of the warning letter period, 3 March 2011  $^2$  Ending 31 December 2017



Status: Retain.





## 7297 Lane Cove - Epping Road at Centennial Avenue

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Epping Road and Centennial Avenue commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

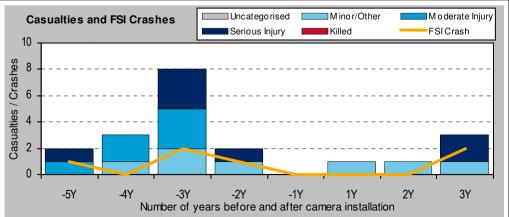
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 141 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	2	↓ 41%
Moderate Injuries	6	0	↓ 100%
Minor / Other Injuries	4	3	↑ 11%
Total Casualties:	15	5	↓ 51%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	2	↓ 26%
Casualty Crashes	12	5	↓ 38%
Adjacent Casualty Crashes	2	1	↓ 26%
Right Through Casualty Crashes	3	0	↓ 100%
Rear End Casualty Crashes	5	3	↓ 11%

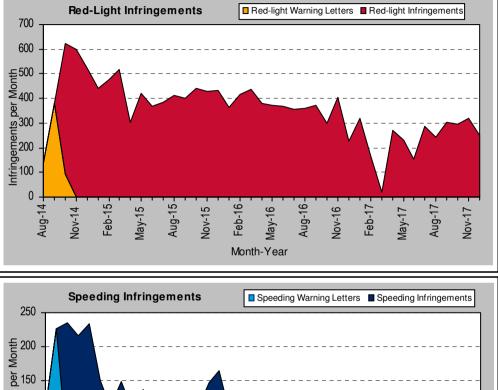
<sup>1</sup> Ending 91 days before the start of the warning letter period, 13 May 2014

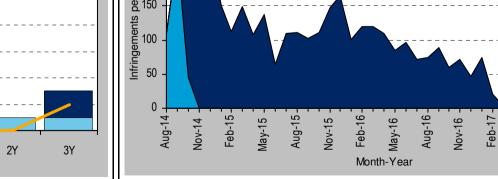
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

Aug-17

Nov-17

May-17

# 7127|7128 Lansdowne / Villawood - Henry Lawson Drive / Woodville Road at Hume Highway

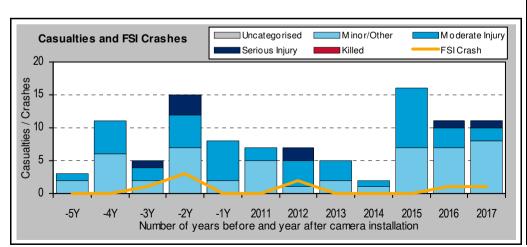
- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- Both cameras at the intersection of Woodville Road and Hume Highway commenced issuing warning letters in August 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

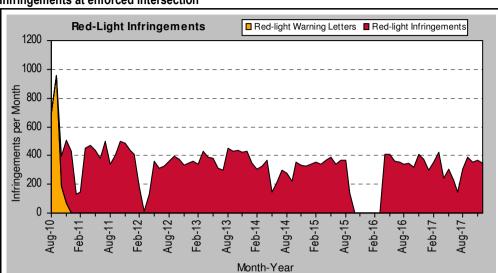
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	2	↓ 50%
Moderate Injuries	19	18	↓ 5%
Minor / Other Injuries	19	25	↑ 32%
Total Casualties:	42	45	↑ 7%
Pedestrian Casualties	2	1	↓ 50%
Fatal and Serious Crashes	4	2	↓ 50%
Casualty Crashes	35	40	↑ 14%
Adjacent Casualty Crashes	1	2	↑ 100%
Right Through Casualty Crashes	4	4	↓ 0%
Rear End Casualty Crashes	16	17	↑ 6%

 $^{1}$  Ending 91 days before the start of the warning letter period, 14 May 2010  $^{2}$  Ending 31 December 2017



Status: Retain.



#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 450 400 onth 350 Ž 300 8-250 <u>ම</u> 200 Infringer 100 50 0 Aug-16 -Aug-10. Feb-15-Aug-15 -Feb-16 -Feb-12. Aug-12. Feb-13. Aug-13. Feb-14. Aug-14. Feb-11 Aug-11 Feb-17 Aug-17 Month-Year

## 7251 Leichhardt - City West Link at James Street

- There is one camera at this intersection.
- The camera at the intersection of City West Link and James Street commenced issuing warning letters in April 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

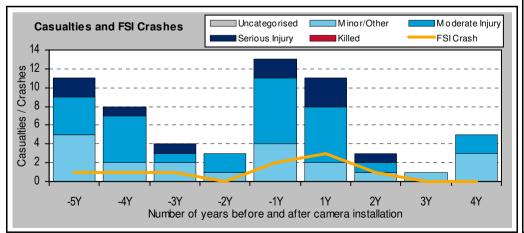
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 263 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	4	↓ 29%
Moderate Injuries	19	9	↓ 50%
Minor / Other Injuries	14	8	↓ 39%
Total Casualties:	39	21	↓ 43%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	4	↓ 15%
Casualty Crashes	29	15	↓ 45%
Adjacent Casualty Crashes	12	6	↓ 47%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	12	9	↓ 21%

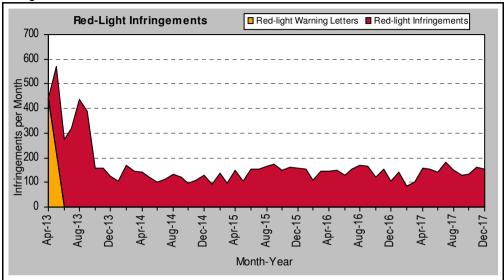
<sup>1</sup> Ending 91 days before the start of the warning letter period, 11 January 2013

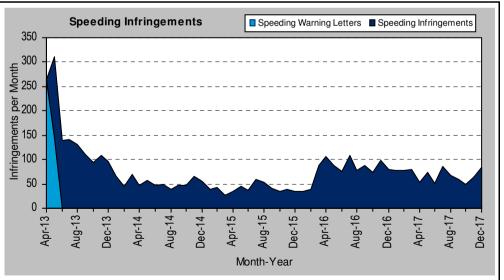
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7153 Lidcombe - Olympic Drive at Vaughan Street

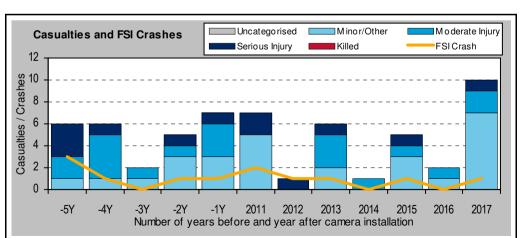
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Olympic Drive and Vaughan Street commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	3	↓ 50%
Moderate Injuries	11	8	↓ 27%
Minor / Other Injuries	9	13	↑ 44%
Total Casualties:	26	24	↓ 8%
Pedestrian Casualties	2	1	↓ 50%
Fatal and Serious Crashes	6	3	↓ 50%
Casualty Crashes	20	20	↓ 0%
Adjacent Casualty Crashes	1	1	↓ 0%
Right Through Casualty Crashes	5	4	↓ 20%
Rear End Casualty Crashes	11	12	↑ 9%

 $^{1}$  Ending 91 days before the start of the warning letter period, 14 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.



#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 100 90 Infringements per Month 80 70 60 50 40 30 20 10 0 Sep-16 -Sep-10. Sep-12. Sep-13. Mar-12 Mar-13 Mar-15 S Mar-16 Mar-14 Mar-11 Sep-1 Sep-1 Mar-17 Sep-1 Sep-Month-Year

## 7315 Liverpool - Hume Highway at Hoxton Park Road

- There is one camera at this intersection.
- The camera at the intersection of Hume Highway and Macquarie Street commenced issuing warning letters in July 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

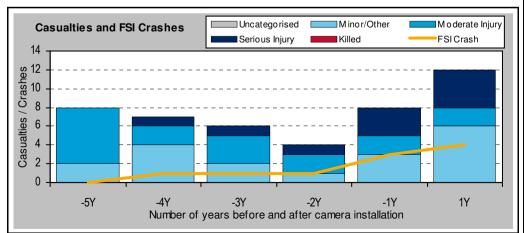
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 154 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	4	↑ 135%
Moderate Injuries	15	2	↓ 53%
Minor / Other Injuries	12	8	↑ 135%
Total Casualties:	33	14	↑ 49%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	6	4	↑ 135%
Casualty Crashes	26	11	↑ 49%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	5	0	↓ 100%
Rear End Casualty Crashes	9	7	↑ 174%

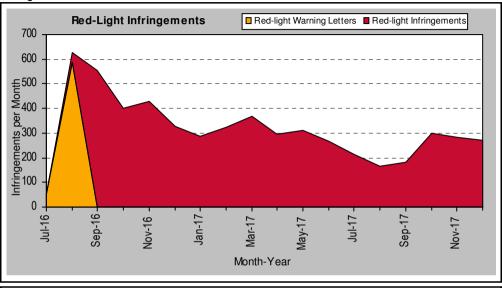
<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 April 2016

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



#### Infringements at enforced intersection





## 7148 Liverpool - Hume Highway at Elizabeth Drive

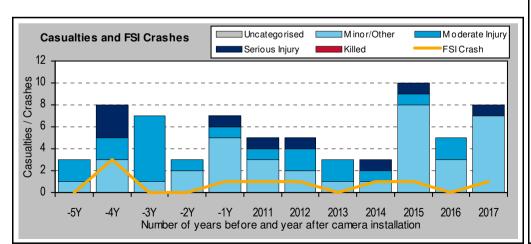
- There is one camera at this intersection.
- The camera at the intersection of Hume Highway and Elizabeth Drive commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

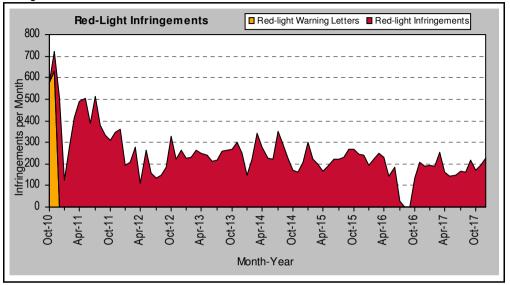
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	3	↓ 25%
Moderate Injuries	12	6	↓ 50%
Minor / Other Injuries	12	20	↑ 67%
Total Casualties:	28	29	↑ 4%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	4	3	↓ 25%
Casualty Crashes	22	22	↓ 0%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	3	2	↓ 33%
Rear End Casualty Crashes	8	14	↑ 75%

 $^{1}$  Ending 91 days before the start of the warning letter period, 15 July 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





## 7253 Liverpool - Memorial Avenue at Bathurst Street

- There is one camera at this intersection.
- The camera at the intersection of Memorial Avenue and Bathurst Street commenced issuing warning letters in April 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

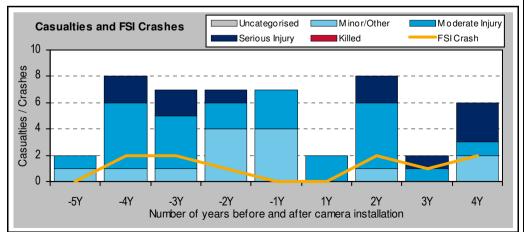
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 245 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	6	↑ 29%
Moderate Injuries	15	9	↓ 36%
Minor / Other Injuries	11	4	↓ 61%
Total Casualties:	31	19	↓ 34%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	5	5	↑ 7%
Casualty Crashes	23	9	↓ 58%
Adjacent Casualty Crashes	8	2	↓ 73%
Right Through Casualty Crashes	6	3	↓ 46%
Rear End Casualty Crashes	1	2	↑ 114%

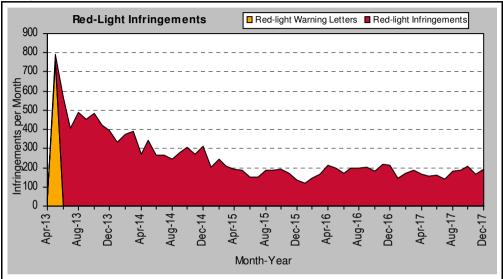
<sup>1</sup> Ending 91 days before the start of the warning letter period, 29 January 2013

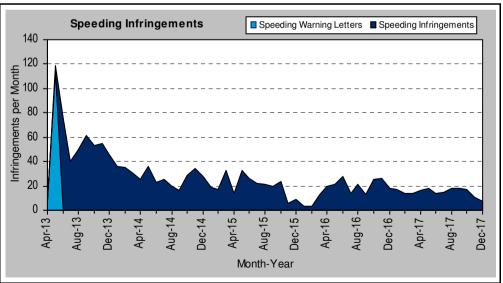
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

## 7338 Liverpool - Moore Street at Bathurst Street

- There is one camera at this intersection.
- The camera at the intersection of Moore Street and Bathurst Street commenced issuing warning letters in September 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

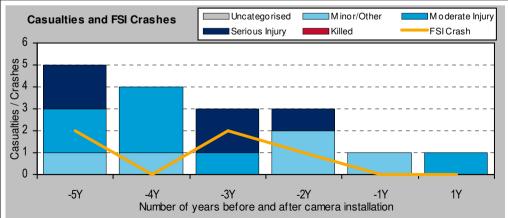
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 116 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	6	1	↓ 37%
Minor / Other Injuries	5	0	↓ 100%
Total Casualties:	16	1	↓ 76%
Pedestrian Casualties	6	0	↓ 100%
Fatal and Serious Crashes	5	0	↓ 100%
Casualty Crashes	13	1	↓ 71%
Adjacent Casualty Crashes	5	0	↓ 100%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	0	1	Increase

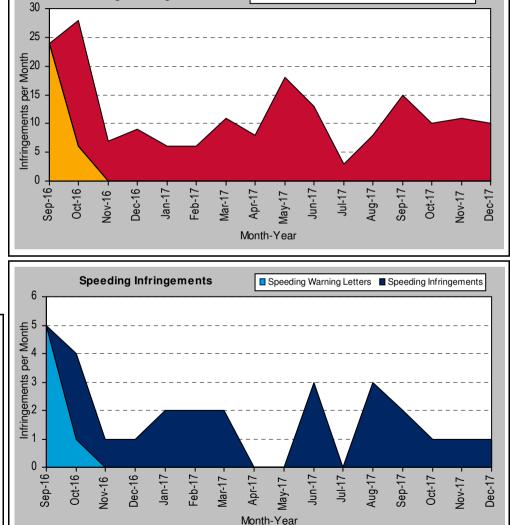
<sup>1</sup> Ending 91 days before the start of the warning letter period, 7 June 2016

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



**Red-Light Infringements** 



Red-light Warning Letters Red-light Infringements

Infringements at enforced intersection

Status: Insufficient data (<5 years) to reliably assess.

#### 7308 Maroubra - Anzac Parade at Boyce Road

- There is one camera at this intersection.
- The camera at the intersection of Anzac Parade and Boyce Road commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

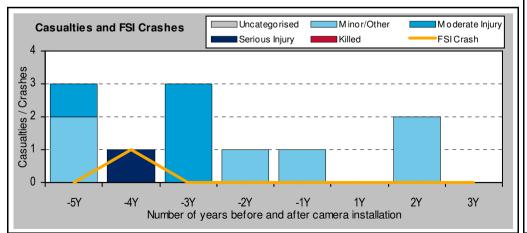
#### Casualties and casualty crashes at enforced intersection

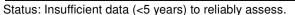
	5 years before installation <sup>1</sup>	3 years and 124 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	0	↓ 100%
Moderate Injuries	4	0	↓ 100%
Minor / Other Injuries	4	2	↓ 25%
Total Casualties:	9	2	↓ 67%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	0	↓ 100%
Casualty Crashes	8	1	↓ 81%
Adjacent Casualty Crashes	5	1	↓ 70%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	0	0	-

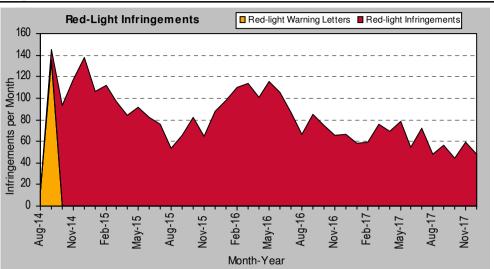
<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 May 2014

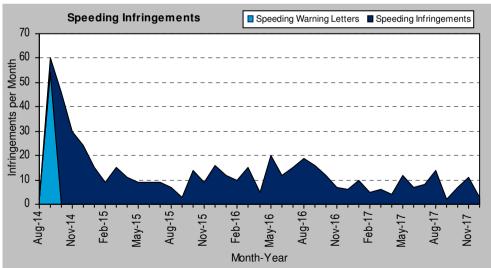
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.









### 7202 Marrickville - Sydenham Road at Victoria Road

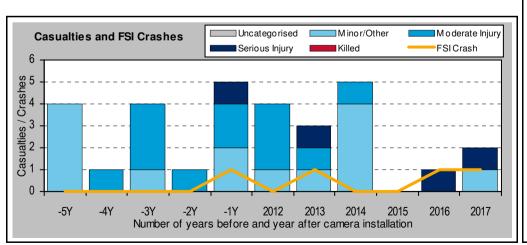
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Sydenham Road and Victoria Road commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

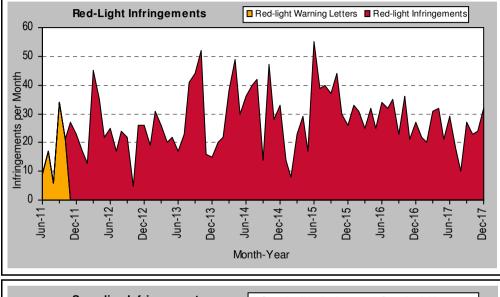
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	3	↑ 200%
Moderate Injuries	7	2	↓ 71%
Minor / Other Injuries	7	6	↓ 14%
Total Casualties:	15	11	↓ 27%
Pedestrian Casualties	2	1	↓ 50%
Fatal and Serious Crashes	1	3	↑ 200%
Casualty Crashes	12	8	↓ 33%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	3	3	↓ 0%
Rear End Casualty Crashes	3	2	↓ 33%

 $^{1}$  Ending 91 days before the start of the warning letter period, 16 March 2011  $^{2}$  Ending 31 December 2017







#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 35 30 4100 25 <u>گ</u>20 nts I Infringemer 15 5 Jun-12. Jun-14 . Jun-15. Dec-15. Jun-16. Dec-16. Dec-12 Jun-13 Dec-13 Dec-14 Jun-11 Dec-11 Jun-1 Dec-1 Month-Year

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

#### 7190 Mascot - O'Riordan Street at Coward Street

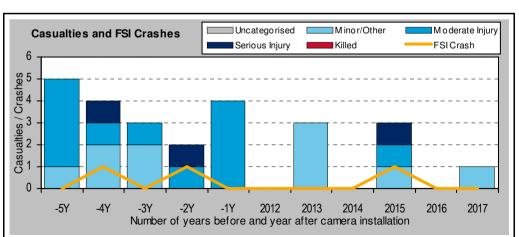
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of O'Riordan Street and Coward Street commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

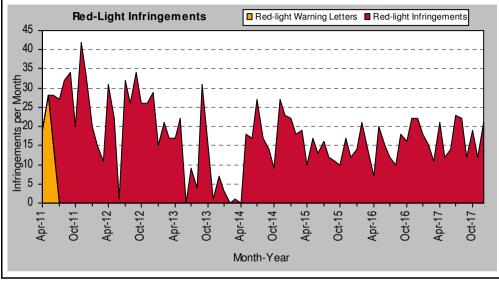
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	1	↓ 50%
Moderate Injuries	11	1	↓ 91%
Minor / Other Injuries	5	5	↓ 0%
Total Casualties:	18	7	↓ 61%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	14	6	↓ 57%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	6	0	↓ 100%
Rear End Casualty Crashes	2	3	↑ 50%

 $^1$  Ending 91 days before the start of the warning letter period, 10 January 2011  $^2$  Ending 31 December 2017



Infringements at enforced intersection



#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 450 400 Month 350 300 <u>کے</u> 250 <u>5</u> 200 <u>ම</u>ි150 Infrin 100 50 0 Oct-13. Apr-15 -Oct-15. Apr-16 -Oct-16 . Apr-12 Oct-12 Apr-13 Apr-14 Oct-14 Apr-11 Oct-11 Oct-17 Apr-1 Month-Year

Status: Retain.

# 7158 Mascot - O'Riordan Street at Gardeners Road

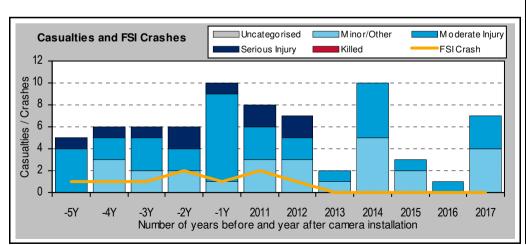
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of O'Riordan Street and Gardeners Road commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

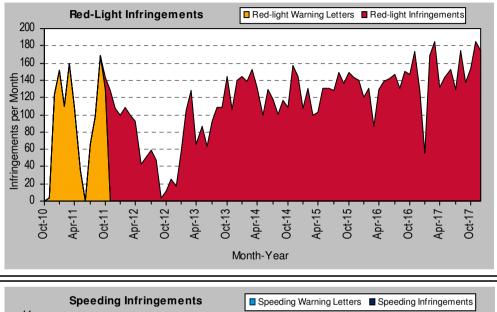
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	0	↓ 100%
Moderate Injuries	19	11	↓ 42%
Minor / Other Injuries	8	12	↑ 50%
Total Casualties:	33	23	↓ 30%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	6	0	↓ 100%
Casualty Crashes	23	18	↓ 22%
Adjacent Casualty Crashes	2	1	↓ 50%
Right Through Casualty Crashes	13	6	↓ 54%
Rear End Casualty Crashes	2	5	↑ 150%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 29 July 2010  $^{\rm 2}$  Ending 31 December 2017



# Infringements at enforced intersection





Status: Retain.

# 7214 Mayfield West - Pacific Highway at Maud Street

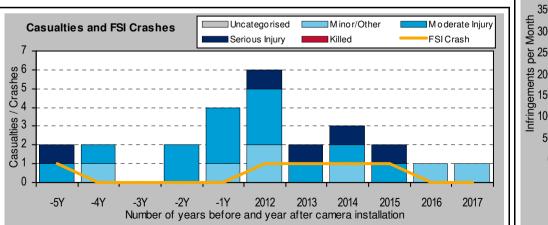
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Pacific Highway and Maud Street commenced issuing warning letters in May 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

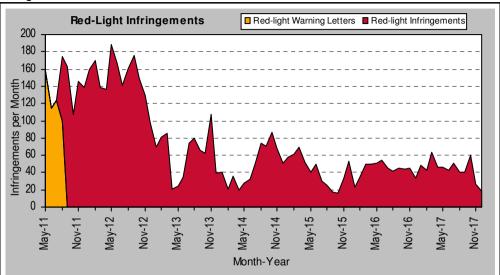
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	3	↑ 200%
Moderate Injuries	7	3	↓ 57%
Minor / Other Injuries	2	3	↑ 50%
Total Casualties:	10	9	↓ 10%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	3	↑ 200%
Casualty Crashes	9	7	↓ 22%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	1	3	↑ 200%
Rear End Casualty Crashes	1	2	↑ 100%

 $^1$  Ending 91 days before the start of the warning letter period, 11 February 2011  $^2$  Ending 31 December 2017



# Infringements at enforced intersection



#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 400 350 Mont 300 ਰੂ 250 € 200 150 100 50 0 May-15 May-12 May-13 Nov-15 May-16 Nov-16 May-11 Nov-12 Nov-13 May-14 Nov-14 May-17 Nov-11 Nov-17 Month-Year

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

# 7118|7119 Mays Hill - Great Western Highway at Coleman Street / Hawkesbury Road

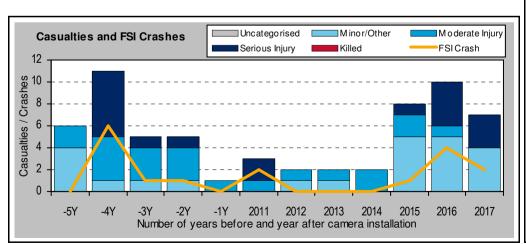
- There are two cameras at this intersection.
- Both cameras at the intersection of Great Western Highway and Hawkesbury Road commenced issuing warning letters in July 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

# Casualties and casualty crashes at enforced intersection

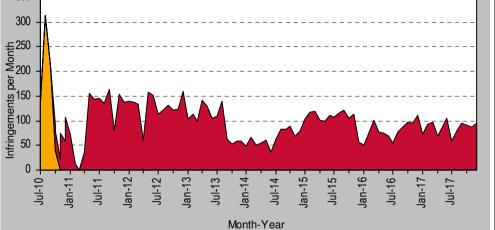
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	8	8	↓ 0%
Moderate Injuries	13	6	↓ 54%
Minor / Other Injuries	7	15	↑ 114%
Total Casualties:	28	29	↑ 4%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	8	7	↓ 13%
Casualty Crashes	20	24	↑ 20%
Adjacent Casualty Crashes	3	2	↓ 33%
Right Through Casualty Crashes	9	8	↓ 11%
Rear End Casualty Crashes	7	7	↓ 0%

 $^{1}$  Ending 91 days before the start of the warning letter period, 1 April 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 800 700 Month 009 500 Ser lts 400 eme 300 ring 200 100 0 Jan-16 -Jul-10. Jan-12. Jan-13. Jan-15. Jul-15. Jul-16 . Jan-11 Jul-11 Jul-12 Jul-13 Jan-14 Jul-14 Jan-17 Jul-17 Month-Year

### Annual NSW Speed Camera Performance Review 2018 - Appendix B: Red-light speed cameras

# 7299 Merrylands West - Merrylands Road at Sherwood Road

- There is one camera at this intersection.
- The camera at the intersection of Merrylands Road and Sherwood Road commenced issuing warning letters in October 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

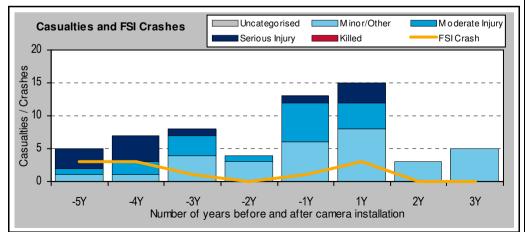
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 75 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	9	3	↓ 48%
Moderate Injuries	13	4	↓ 52%
Minor / Other Injuries	15	17	↑ 77%
Total Casualties:	37	24	↑ 1%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	8	3	↓ 42%
Casualty Crashes	27	19	↑ 10%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	18	5	↓ 57%
Rear End Casualty Crashes	1	9	↑ 1303%

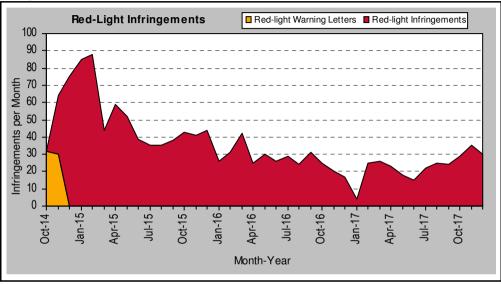
<sup>1</sup> Ending 91 days before the start of the warning letter period, 18 July 2014

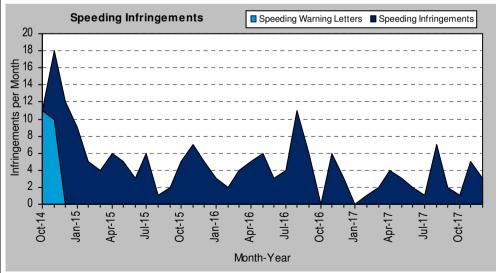
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





# 7149 Milperra - Newbridge Road at Henry Lawson Drive

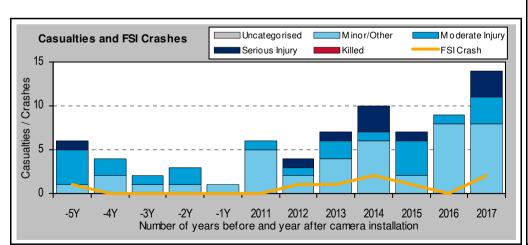
- There is one camera at this intersection.
- The camera at the intersection of Newbridge Road and Henry Lawson Drive commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued. The speed limit at this location changed from 60km/h to 70km/h in May 2012.

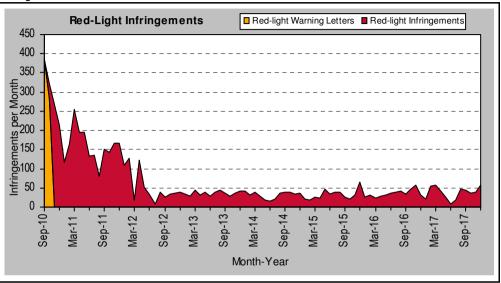
### Casualties and casualty crashes at enforced intersection

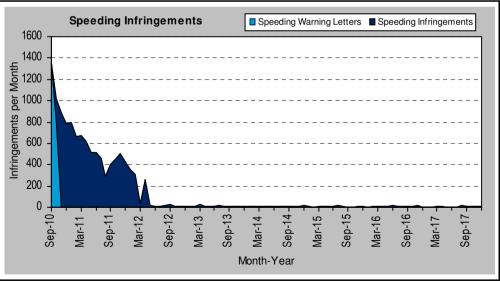
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	8	↑ 700%
Moderate Injuries	9	11	↑ 22%
Minor / Other Injuries	6	28	↑ 367%
Total Casualties:	16	47	↑ 194%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	6	↑ 500%
Casualty Crashes	14	37	↑ 164%
Adjacent Casualty Crashes	1	2	↑ 100%
Right Through Casualty Crashes	3	2	↓ 33%
Rear End Casualty Crashes	8	15	↑ 88%

 $^{1}$  Ending 91 days before the start of the warning letter period, 10 June 2010  $^{2}$  Ending 31 December 2017



### Infringements at enforced intersection





Status: Retain and Monitor. Annual traffic counts have increased across NSW.

# 7126 Miranda - Kingsway at Port Hacking Road

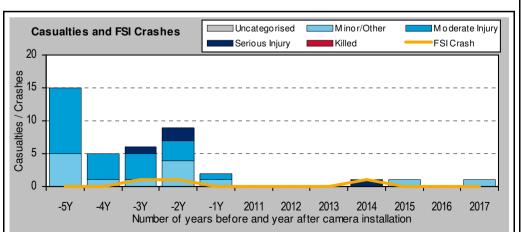
- There is one camera at this intersection.
- The camera at the intersection of Kingsway and Port Hacking Road commenced issuing warning letters in July 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

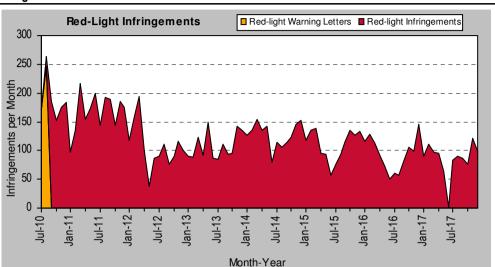
### Casualties and casualty crashes at enforced intersection

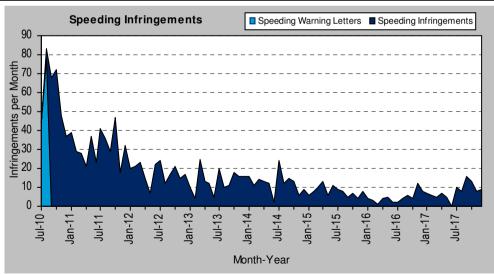
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	3	1	↓ 67%
Moderate Injuries	22	0	↓ 100%
Minor / Other Injuries	13	2	↓ 85%
Total Casualties:	38	3	↓ 92%
Pedestrian Casualties	3	0	↓ 100%
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	27	3	↓ 89%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	14	1	↓ 93%
Rear End Casualty Crashes	4	2	↓ 50%

 $^{1}$  Ending 91 days before the start of the warning letter period, 7 April 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





# 7178 Moore Park - Anzac Parade at Lang Road

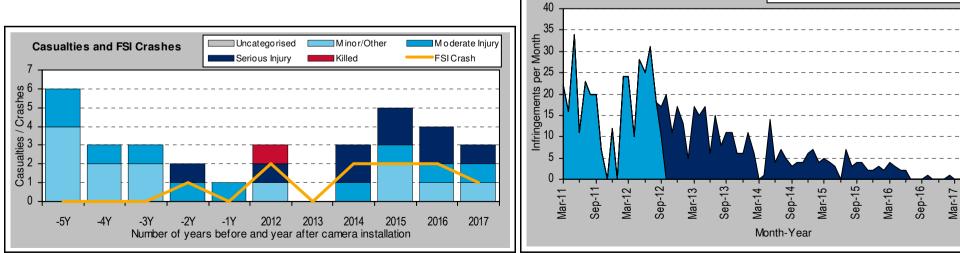
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Anzac Parade and Lang Road commenced issuing warning letters in March 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	7	↑ 600%
Moderate Injuries	6	4	↓ 33%
Minor / Other Injuries	8	4	↓ 50%
Total Casualties:	15	15	↓ 0%
Pedestrian Casualties	1	1	↓ 0%
Fatal and Serious Crashes	1	7	↑ 600%
Casualty Crashes	12	14	↑ 17%
Adjacent Casualty Crashes	2	2	↓ 0%
Right Through Casualty Crashes	1	2	↑ 100%
Rear End Casualty Crashes	5	2	↓ 60%

 $^1$  Ending 91 days before the start of the warning letter period, 15 December 2010  $^2$  Ending 31 December 2017



# Infringements at enforced intersection

**Red-Light Infringements** 

Sep-12.

**Speeding Infringements** 

Sep-11

Mar-11

Mar-12

Mar-13

Sep-13

Mar-14

Red-light Warning Letters Red-light Infringements

Sep-15.

Mar-16

Speeding Warning Letters Speeding Infringements

Sep-16.

Mar-17

Sep-17

Sep-14

Month-Year

Mar-15

Status: Ineligible (there is currently a review underway at this location). The previous wet-film red light camera may have influenced the before period data.

Sep-1

# 7140|7141 Moore Park / Paddington - Anzac Parade / Flinders Street at Moore Park Road

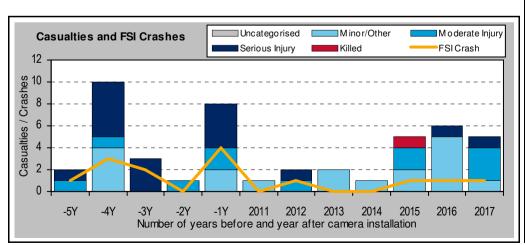
- There are two cameras at this intersection.
- Both cameras at the intersection of Anzac Parade and Moore Park Road commenced issuing warning letters in August 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

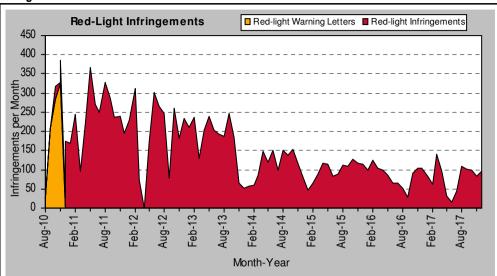
# Casualties and casualty crashes at enforced intersection

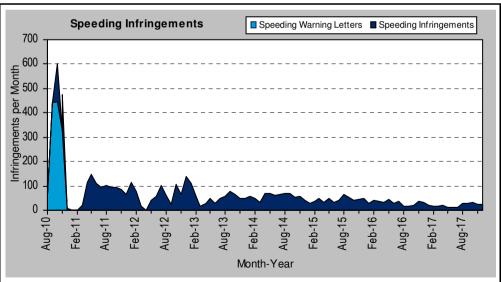
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	1	Increase
Serious Injuries	13	2	↓ 85%
Moderate Injuries	5	5	↓ 0%
Minor / Other Injuries	6	11	↑ 83%
Total Casualties:	24	19	↓ 21%
Pedestrian Casualties	1	1	↓ 0%
Fatal and Serious Crashes	10	3	↓ 70%
Casualty Crashes	18	16	↓ 11%
Adjacent Casualty Crashes	2	1	↓ 50%
Right Through Casualty Crashes	7	5	↓ 29%
Rear End Casualty Crashes	3	7	↑ 133%

 $^{1}$  Ending 91 days before the start of the warning letter period, 19 May 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





# 7181 Moorebank - Newbridge Road at Stockton Avenue

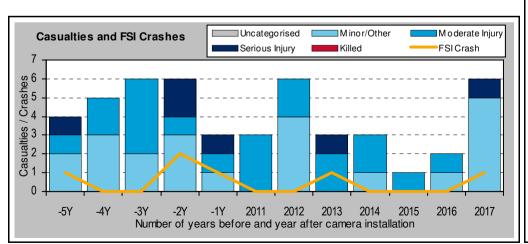
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Newbridge Road and Stockton Avenue commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

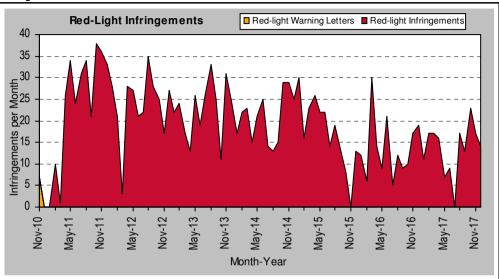
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	2	↓ 50%
Moderate Injuries	9	6	↓ 33%
Minor / Other Injuries	11	7	↓ 36%
Total Casualties:	24	15	↓ 38%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	2	↓ 50%
Casualty Crashes	14	9	↓ 36%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	7	3	↓ 57%
Rear End Casualty Crashes	5	3	↓ 40%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 16 August 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





### 7205 Mosman - Military Road at Cowles Road

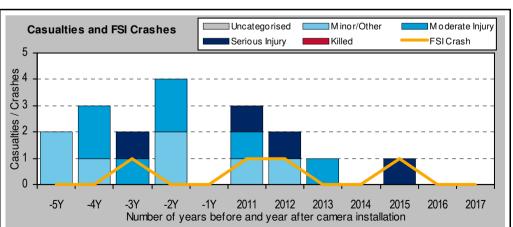
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Military Road and Cowles Road commenced issuing warning letters in December 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

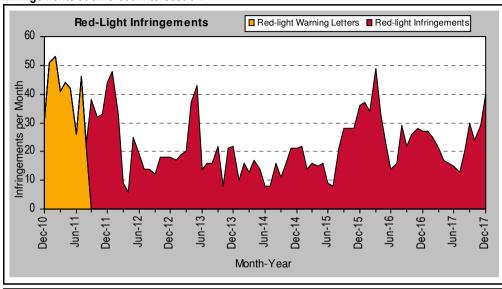
### Casualties and casualty crashes at enforced intersection

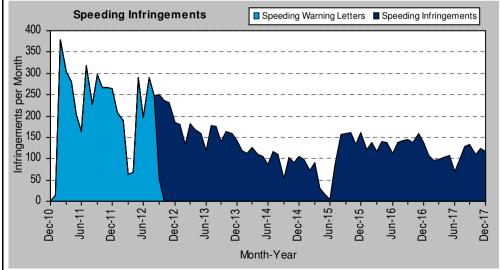
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	1	↓ 0%
Moderate Injuries	5	1	↓ 80%
Minor / Other Injuries	5	0	↓ 100%
Total Casualties:	11	2	↓ 82%
Pedestrian Casualties	1	1	↓ 0%
Fatal and Serious Crashes	1	1	↓0%
Casualty Crashes	9	2	↓ 78%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	5	0	↓ 100%

 $^{1}$  Ending 91 days before the start of the warning letter period, 15 September 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





# 7274 Mount Druitt - Great Western Highway at Carlisle Avenue

- There is one camera at this intersection.
- The camera at the intersection of Great Western Highway and Carlisle Avenue commenced issuing warning letters in November 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

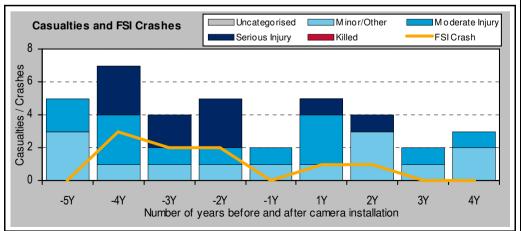
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 46 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	8	2	↓ 70%
Moderate Injuries	8	5	↓ 24%
Minor / Other Injuries	7	7	↑ 21%
Total Casualties:	23	14	↓ 26%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	7	2	↓ 65%
Casualty Crashes	15	12	↓ 3%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	2	1	↓ 39%
Rear End Casualty Crashes	2	7	↑ 324%

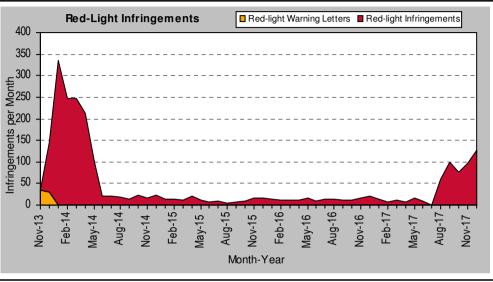
<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 August 2013

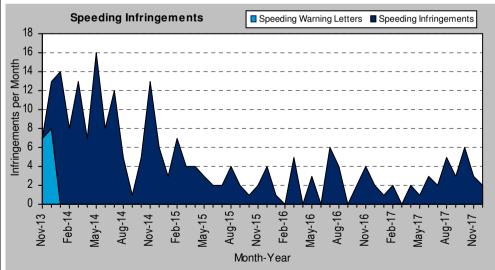
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.





# 7247 Naremburn - Willoughby Road at Chandos Street

- There is one camera at this intersection.
- The camera at the intersection of Willoughby Road and Chandos Street commenced issuing warning letters in February 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

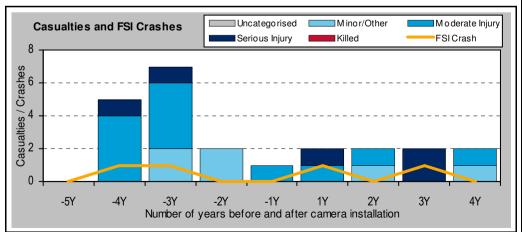
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 308 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	3	↑ 55%
Moderate Injuries	9	3	↓ 66%
Minor / Other Injuries	4	2	↓ 48%
Total Casualties:	15	8	↓ 45%
Pedestrian Casualties	1	1	↑ 3%
Fatal and Serious Crashes	2	2	↑ 3%
Casualty Crashes	11	7	↓ 34%
Adjacent Casualty Crashes	8	5	↓ 35%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	0	1	Increase

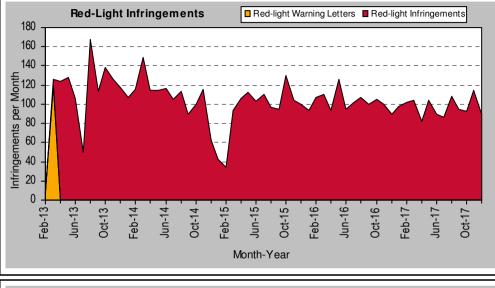
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 November 2012

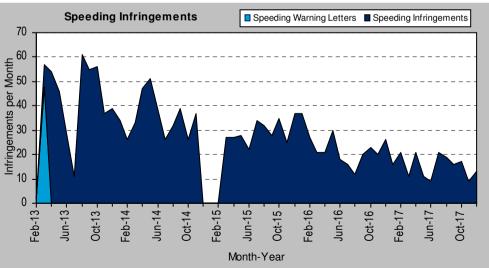
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





# 7305 Neutral Bay - Falcon Street at Merlin Street

- There is one camera at this intersection.
- The camera at the intersection of Falcon Street and Merlin Street commenced issuing warning letters in July 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

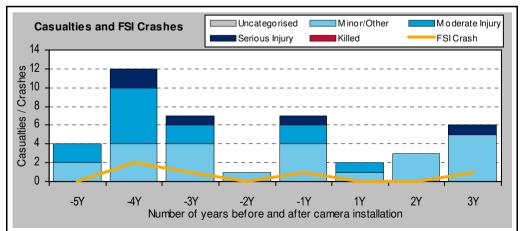
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 163 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	1	↓ 64%
Moderate Injuries	12	1	↓ 88%
Minor / Other Injuries	15	10	↓ 3%
Total Casualties:	31	12	↓ 44%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	1	↓ 64%
Casualty Crashes	22	10	↓ 34%
Adjacent Casualty Crashes	8	0	↓ 100%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	11	4	↓ 47%

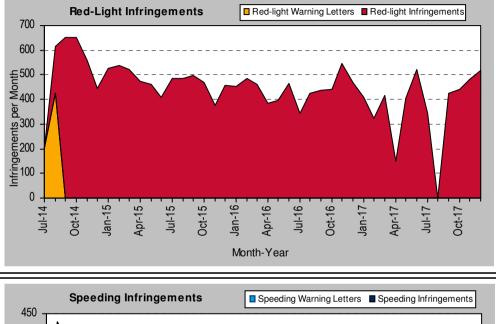
<sup>1</sup> Ending 91 days before the start of the warning letter period, 21 April 2014

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

# 7254/7269/7270 North Ryde - Cox's Road at Lane Cove Road (school zone)

- There are three cameras at this intersection.
- The camera at the intersection of Cox's Road and Lane Cove Road (westbound) commenced issuing warning letters in April 2013. This camera enforces red-light running only.
- Both cameras at the intersection of Lane Cove Road and Cox's Road commenced issuing warning letters in April 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

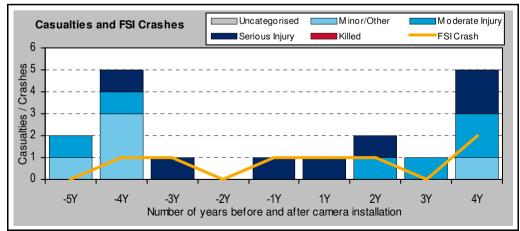
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 251 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	3	4	↑ 42%
Moderate Injuries	2	4	↑ 113%
Minor / Other Injuries	4	1	↓ 73%
Total Casualties:	9	9	↑ 7%
Pedestrian Casualties	3	0	↓ 100%
Fatal and Serious Crashes	3	4	↑ 42%
Casualty Crashes	9	7	↓ 17%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	0	2	Increase
Rear End Casualty Crashes	2	4	↑ 113%

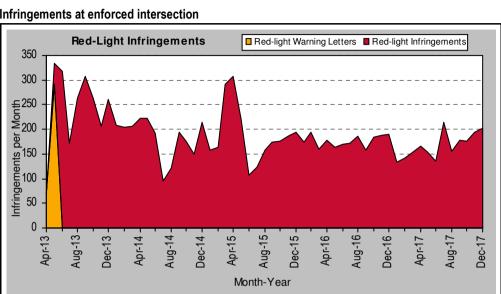
<sup>&</sup>lt;sup>1</sup> Ending 91 days before the start of the warning letter period, 23 January 2013

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.



#### Speeding Infringements Speeding Warning Letters Speeding Infringements 900 800 onth 700 Ś 600 be 500 P 400 <u>මි</u> 300 nfri 200 100 0 Apr-13 Aug-13. Aug-15 Dec-13 Aug-14 Apr-15 Dec-15 Apr-16 Aug-16 Dec-16 Aug-17 Dec-17 Apr-14 Dec-14 Apr-17 Month-Year

# 7185 North Ryde - Wicks Road at Epping Road

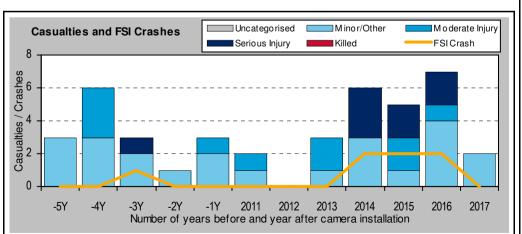
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Wicks Road and Epping Road commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

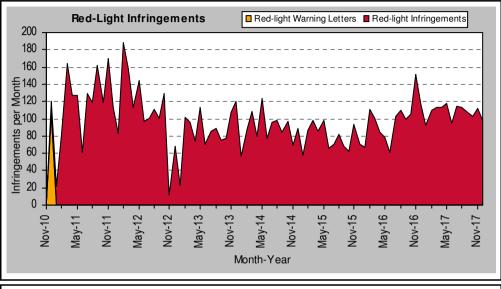
# Casualties and casualty crashes at enforced intersection

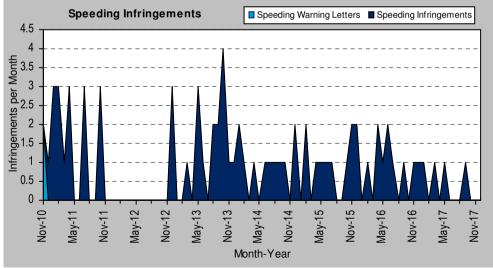
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	7	↑ 600%
Moderate Injuries	4	5	↑ 25%
Minor / Other Injuries	11	11	↓ 0%
Total Casualties:	16	23	↑ 44%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	6	↑ 500%
Casualty Crashes	14	19	↑ 36%
Adjacent Casualty Crashes	1	1	↓ 0%
Right Through Casualty Crashes	0	1	Increase
Rear End Casualty Crashes	9	11	↑ 22%

 $^{1}$  Ending 91 days before the start of the warning letter period, 12 August 2010  $^{2}$  Ending 31 December 2017



# Infringements at enforced intersection





Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

# 7283 Northmead - Briens Road at Redbank Road

- There is one camera at this intersection.
- The camera at the intersection of Briens Road and Redbank Road commenced issuing warning letters in September 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

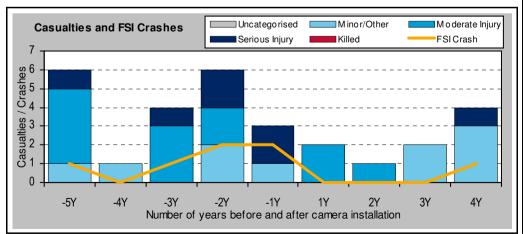
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 96 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	1	↓ 80%
Moderate Injuries	9	3	↓ 61%
Minor / Other Injuries	5	6	↑ 41%
Total Casualties:	20	10	↓ 41%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	6	1	↓ 80%
Casualty Crashes	17	10	↓ 31%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	3	1	↓ 61%
Rear End Casualty Crashes	7	6	↑ 1%

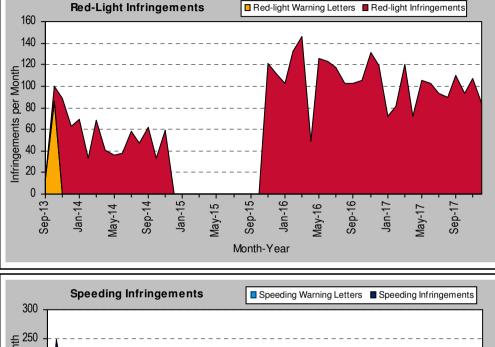
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 June 2013

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





# 7182 Northmead - Old Windsor Road at Cumberland Highway

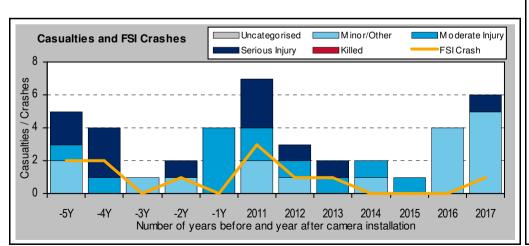
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Old Windsor Road and Cumberland Highway commenced issuing warning letters in December 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

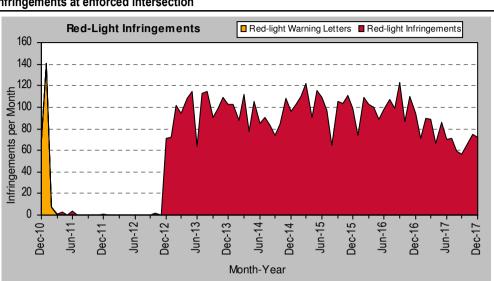
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	2	↓ 67%
Moderate Injuries	6	3	↓ 50%
Minor / Other Injuries	4	10	↑ 150%
Total Casualties:	16	15	↓ 6%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	2	↓ 60%
Casualty Crashes	15	11	↓ 27%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	8	6	↓ 25%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 15 September 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





# 7151 Paddington - Moore Park Road at Lang Road

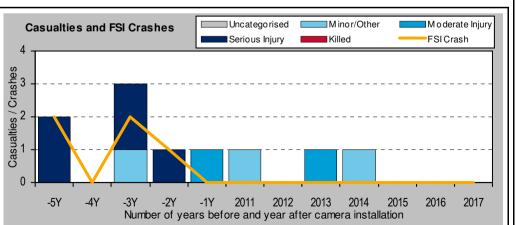
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Moore Park Road and Lang Road commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

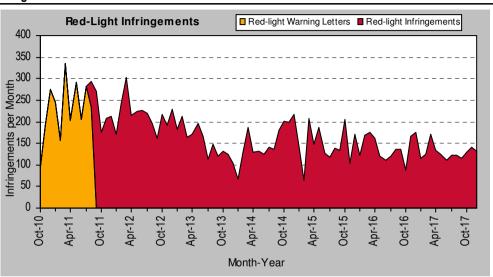
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	1	1	↓ 0%
Minor / Other Injuries	1	1	↓ 0%
Total Casualties:	7	2	↓ 71%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	5	0	↓ 100%
Casualty Crashes	6	2	↓ 67%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	1	1	↓ 0%
Rear End Casualty Crashes	1	1	↓ 0%

 $^{1}$  Ending 91 days before the start of the warning letter period, 21 July 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





# 7120|7121 Paddington / Surry Hills - South Dowling Street at Fitzroy Street / Moore Park Road

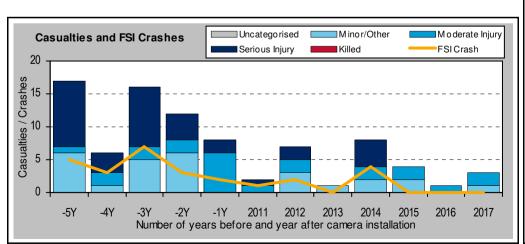
- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- Both cameras at the intersection of South Dowling Street and Fitzroy Street commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

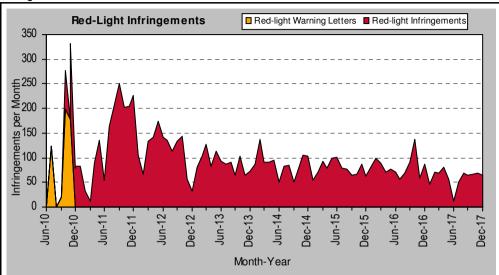
# Casualties and casualty crashes at enforced intersection

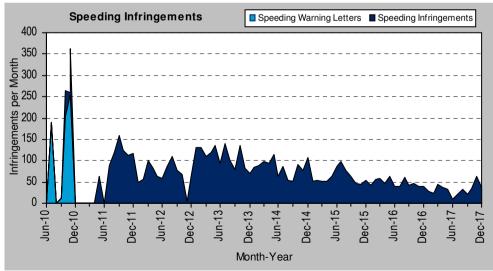
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	28	4	↓ 86%
Moderate Injuries	13	7	↓ 46%
Minor / Other Injuries	18	6	↓ 67%
Total Casualties:	59	17	↓ 71%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	20	4	↓ 80%
Casualty Crashes	38	15	↓ 61%
Adjacent Casualty Crashes	27	4	↓ 85%
Right Through Casualty Crashes	1	1	↓ 0%
Rear End Casualty Crashes	5	4	↓ 20%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 31 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





# 7333 Parramatta - Great Western Highway at Marsden Street

- There is one camera at this intersection.
- The camera at the intersection of Great Western Highway and Marsden Street commenced issuing warning letters in October 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

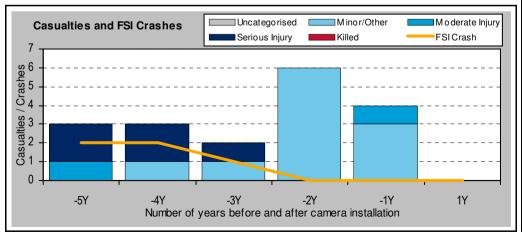
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 81 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	2	0	↓ 100%
Minor / Other Injuries	11	0	↓ 100%
Total Casualties:	18	0	↓ 100%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	5	0	↓ 100%
Casualty Crashes	14	0	↓ 100%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	5	0	↓ 100%

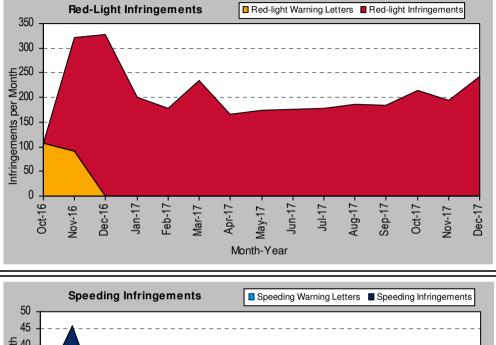
<sup>1</sup> Ending 91 days before the start of the warning letter period, 12 July 2016

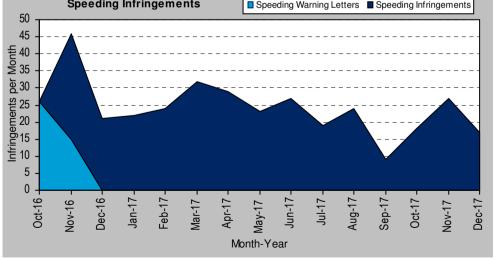
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





# 7282 Parramatta - Macquarie Street at Marsden Street

- There is one camera at this intersection.
- The camera at the intersection of Macquarie Street and Marsden Street commenced issuing warning letters in February 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

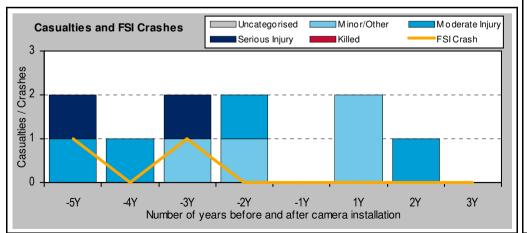
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 321 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	0	↓ 100%
Moderate Injuries	3	1	↓ 57%
Minor / Other Injuries	2	2	↑ 29%
Total Casualties:	7	3	↓ 45%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	2	0	↓ 100%
Casualty Crashes	5	3	↓ 23%
Adjacent Casualty Crashes	2	2	↑ 29%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	1	1	↑ 29%

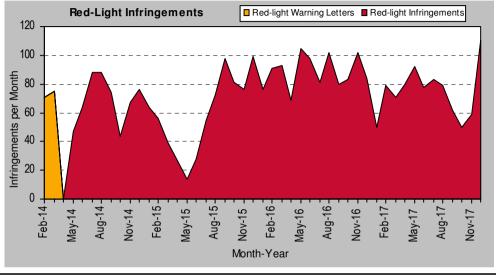
<sup>1</sup> Ending 91 days before the start of the warning letter period, 14 November 2013

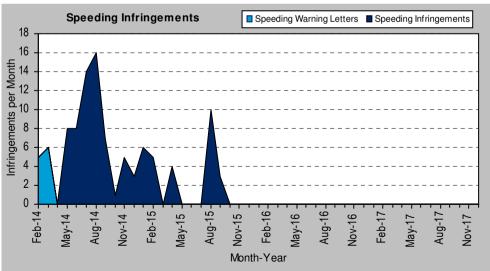
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.









# 7249 Parramatta - O'Connell Street at Argyle Street

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of O'Connell Street and Argyle Street commenced issuing warning letters in May 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

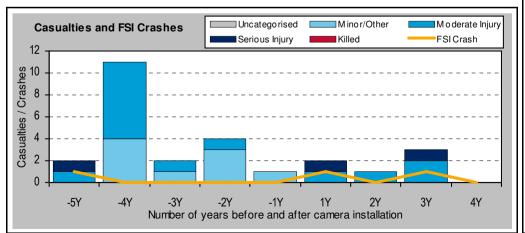
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 223 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	2	↑ 117%
Moderate Injuries	10	4	↓ 57%
Minor / Other Injuries	9	0	↓ 100%
Total Casualties:	20	6	↓ 67%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	2	↑ 117%
Casualty Crashes	14	5	↓ 61%
Adjacent Casualty Crashes	11	2	↓ 80%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	1	0	↓ 100%

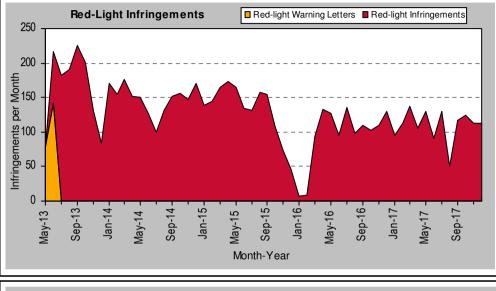
<sup>1</sup> Ending 91 days before the start of the warning letter period, 20 February 2013

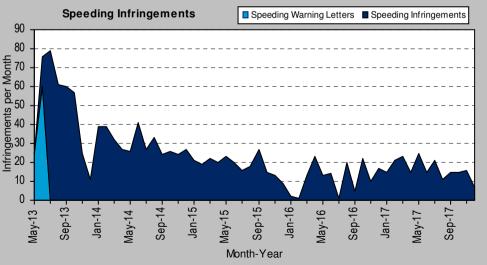
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

# 7107 Parramatta - Victoria Road at Church Street

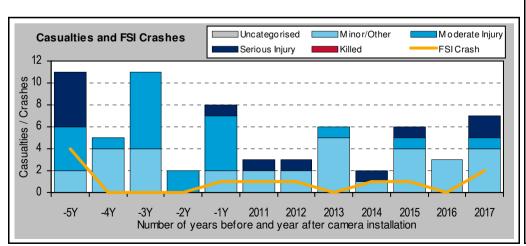
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Victoria Road and Church Street commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

# Casualties and casualty crashes at enforced intersection

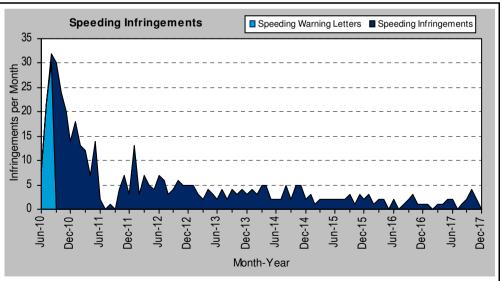
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	4	↓ 33%
Moderate Injuries	19	3	↓ 84%
Minor / Other Injuries	12	17	↑ 42%
Total Casualties:	37	24	↓ 35%
Pedestrian Casualties	3	2	↓ 33%
Fatal and Serious Crashes	5	4	↓ 20%
Casualty Crashes	26	18	↓ 31%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	15	2	↓ 87%
Rear End Casualty Crashes	4	5	↑ 25%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 25 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





# 7161 Pennant Hills - Pennant Hills Road at Beecroft Road (school zone)

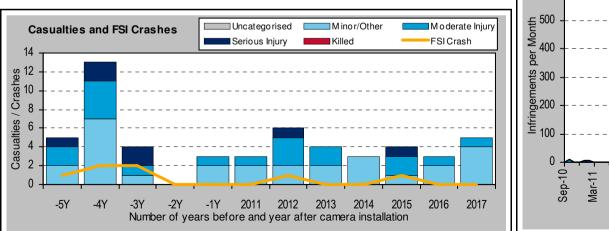
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Pennant Hills Road and Beecroft Road commenced issuing warning letters in September 2010.

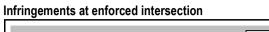
• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

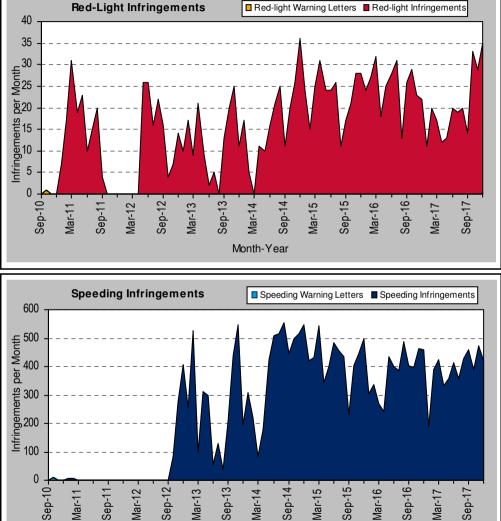
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	1	↓ 80%
Moderate Injuries	8	6	↓ 25%
Minor / Other Injuries	12	12	↓ 0%
Total Casualties:	25	19	↓ 24%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	1	↓ 80%
Casualty Crashes	18	19	↑ 6%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	17	17	↓ 0%

 $^{1}$  Ending 91 days before the start of the warning letter period, 2 June 2010  $^{2}$  Ending 31 December 2017







Month-Year

Status: Retain.

# 7157 Petersham - Gordon Street at New Canterbury Road

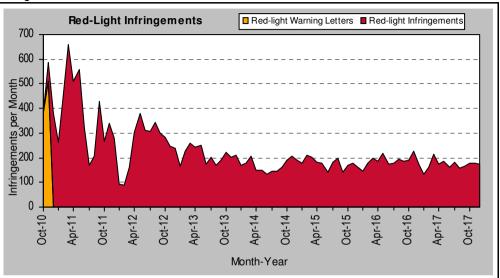
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Gordon Street and New Canterbury Road commenced issuing warning letters in October 2010. This camera enforces red-light running only.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

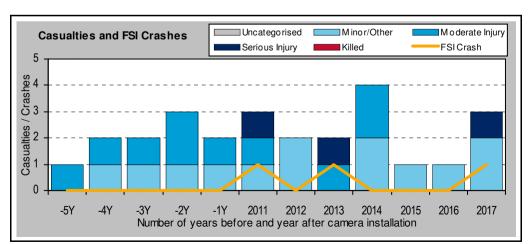
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	0	2	Increase
Moderate Injuries	6	3	↓ 50%
Minor / Other Injuries	4	6	↑ 50%
Total Casualties:	10	11	↑ 10%
Pedestrian Casualties	1	3	↑ 200%
Fatal and Serious Crashes	0	2	Increase
Casualty Crashes	9	9	↓ 0%
Adjacent Casualty Crashes	2	2	↓ 0%
Right Through Casualty Crashes	3	1	↓ 67%
Rear End Casualty Crashes	2	3	↑ 50%

### Infringements at enforced intersection



<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 July 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

# 7156 Petersham - Parramatta Road at West Street

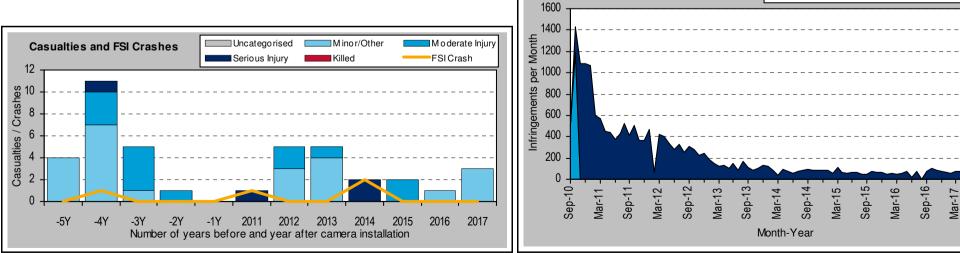
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Parramatta Road and West Street commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	2	↑ 100%
Moderate Injuries	8	3	↓ 63%
Minor / Other Injuries	12	8	↓ 33%
Total Casualties:	21	13	↓ 38%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	2	↑ 100%
Casualty Crashes	16	8	↓ 50%
Adjacent Casualty Crashes	3	2	↓ 33%
Right Through Casualty Crashes	6	3	↓ 50%
Rear End Casualty Crashes	6	2	↓ 67%

 $^{1}$  Ending 91 days before the start of the warning letter period, 24 June 2010  $^{2}$  Ending 31 December 2017



# Infringements at enforced intersection

Sep-11

Mar-12

Speeding Infringements

Sep-12

Mar-13

300

250

Infringen 05

0

Sep-10

Mar-11

**Red-Light Infringements** 

Sep-13

Mar-14

Month-Year

Sep-14

Mar-15

Red-light Warning Letters Red-light Infringements

Sep-15

Mar-16

Speeding Warning Letters Speeding Infringements

Sep-16

Mar-17

Sep-17

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

Sep-1

# 7334 Prospect - Great Western Highway at Clunies Ross Street

- There is one camera at this intersection.
- The camera at the intersection of Great Western Highway and Clunies Ross Street commenced issuing warning letters in November 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

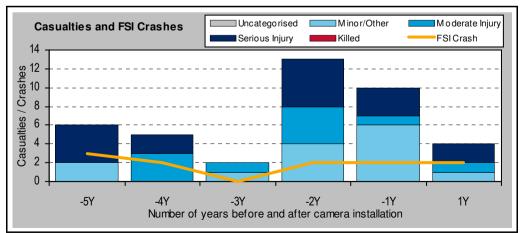
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 31 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	14	2	↓ 34%
Moderate Injuries	9	1	↓ 49%
Minor / Other Injuries	13	1	↓ 65%
Total Casualties:	36	4	↓ 49%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	9	2	↑ 3%
Casualty Crashes	23	2	↓ 60%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	8	1	↓ 42%
Rear End Casualty Crashes	9	0	↓ 100%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 31 August 2016

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



0

Nov-16

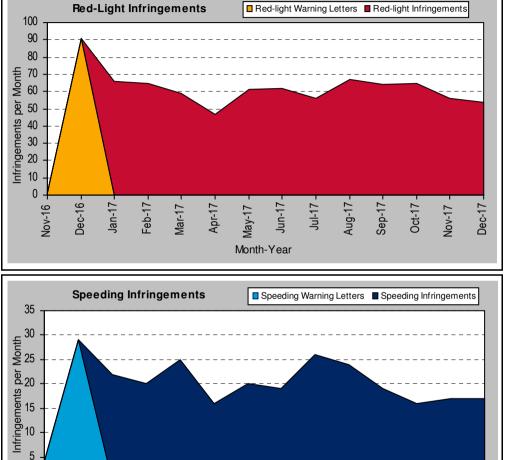
Dec-16 .

Jan-17

Feb-17.

Apr-17

Mar-17



Jun-17.

May-17

Month-Year

Jul-17

Aug-17.

Sep-17.

Oct-17

Status: Insufficient data (<5 years) to reliably assess.

Dec-17

Nov-17

Infringements at enforced intersection

# 7286 Ramsgate - Rocky Point Road at Ramsgate Road

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Rocky Point Road and Ramsgate Road commenced issuing warning letters in September 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

per

10

0

Sep-13.

Jan-14.

May-14

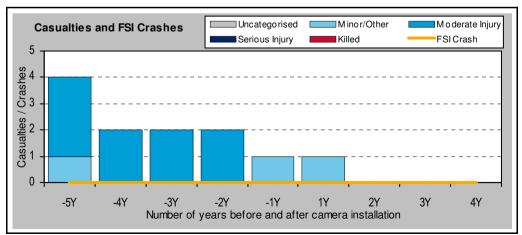
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 95 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	0	0	-
Moderate Injuries	9	0	↓ 100%
Minor / Other Injuries	2	1	↓ 41%
Total Casualties:	11	1	↓ 89%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	0	0	-
Casualty Crashes	9	1	↓ 87%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	4	0	↓ 100%

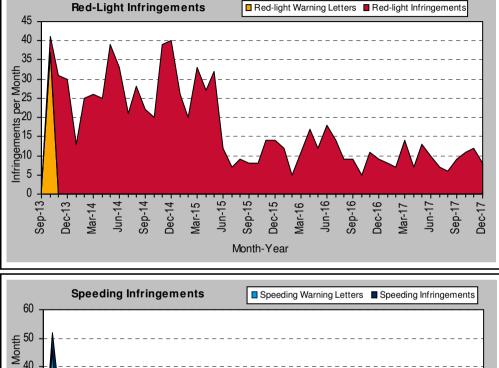
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 June 2013

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection



Sep-15-

Month-Year

May-15

Jan-16.

Sep-16

Jan-17

May-17

Sep-17

May-16

Jan-15.

Sep-14

# 7285 Randwick - Alison Street at Avoca Street

- There is one camera at this intersection.
- The camera at the intersection of Alison Road and Avoca Street commenced issuing warning letters in November 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

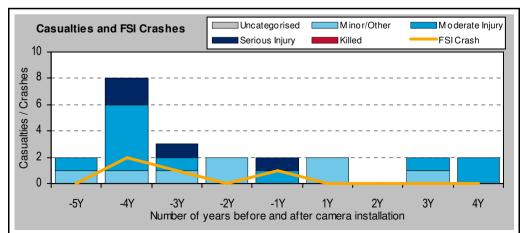
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 32 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	0	↓ 100%
Moderate Injuries	8	3	↓ 54%
Minor / Other Injuries	5	3	↓ 27%
Total Casualties:	17	6	↓ 57%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	13	4	↓ 62%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	1	1	↑ 22%
Rear End Casualty Crashes	4	2	↓ 39%

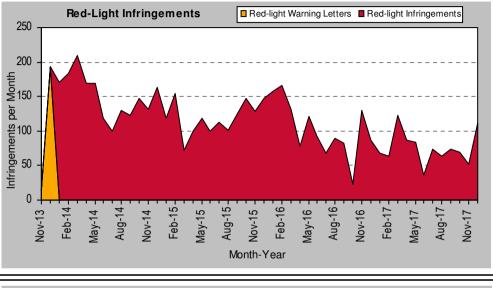
<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 August 2013

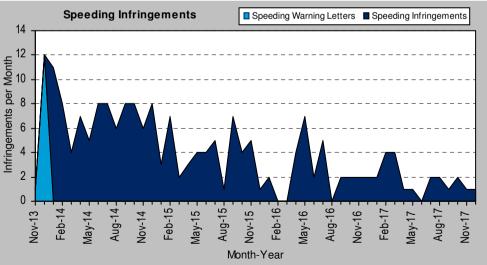
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

### 7199 Randwick - Avoca Street at Darley Road

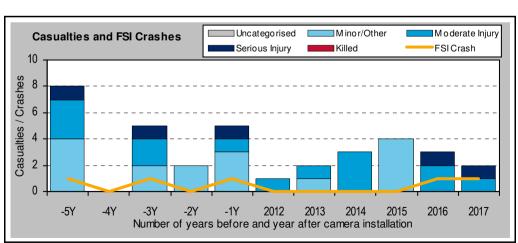
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Avoca Street and Darley Road commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

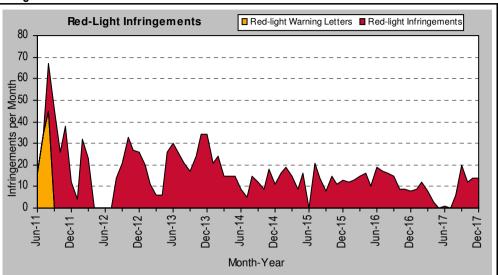
# Casualties and casualty crashes at enforced intersection

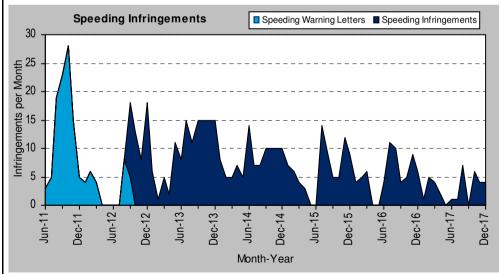
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	3	2	↓ 33%
Moderate Injuries	6	7	↑ 17%
Minor / Other Injuries	11	5	↓ 55%
Total Casualties:	20	14	↓ 30%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	3	2	↓ 33%
Casualty Crashes	13	12	↓ 8%
Adjacent Casualty Crashes	3	2	↓ 33%
Right Through Casualty Crashes	4	2	↓ 50%
Rear End Casualty Crashes	4	4	↓ 0%

 $^{1}$  Ending 91 days before the start of the warning letter period, 22 March 2011  $^{2}$  Ending 31 December 2017



Status: Retain.





# 7207 Redfern - Chalmers Street at Cleveland Street (school zone)

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Chalmers Street and Cleveland Street commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	6	↑ 20%
Moderate Injuries	6	6	↓ 0%
Minor / Other Injuries	3	1	↓ 67%
Total Casualties:	14	13	↓ 7%
Pedestrian Casualties	3	5	↑ 67%
Fatal and Serious Crashes	5	6	↑ 20%
Casualty Crashes	12	12	↓ 0%
Adjacent Casualty Crashes	0	2	Increase
Right Through Casualty Crashes	0	0	-
Rear End Casualty Crashes	5	1	↓ 80%

Uncatego rised

Serious Injury

Killed

<sup>1</sup> Ending 91 days before the start of the warning letter period, 11 March 2011 <sup>2</sup> Ending 31 December 2017

**Casualties and FSI Crashes** 

-4Y

-3Y

-2Y

7

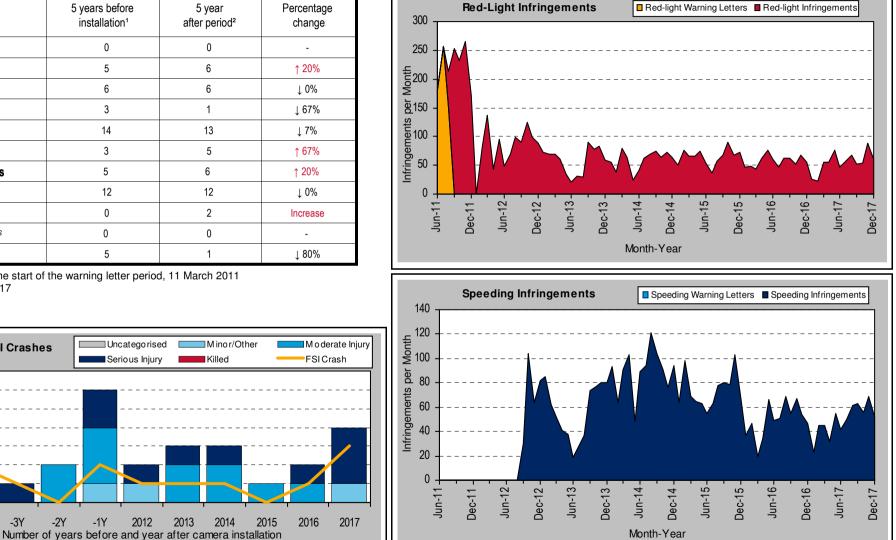
rashes G 0

õ4

Casualties

0

-5Y



# Infringements at enforced intersection

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

-1Y

2012

2013

2014

# 7306 Richmond - March Street at East Market Street

- There is one camera at this intersection.
- The camera at the intersection of March Street and East Market Street commenced issuing warning letters in August 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

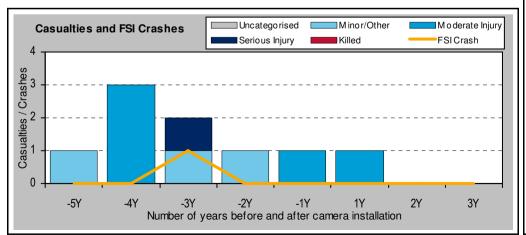
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	0	↓ 100%
Moderate Injuries	4	2	↓ 25%
Minor / Other Injuries	3	0	↓ 100%
Total Casualties:	8	2	↓ 63%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	0	↓ 100%
Casualty Crashes	6	2	↓ 50%
Adjacent Casualty Crashes	1	1	↑ 49%
Right Through Casualty Crashes	5	0	↓ 100%
Rear End Casualty Crashes	0	1	Increase

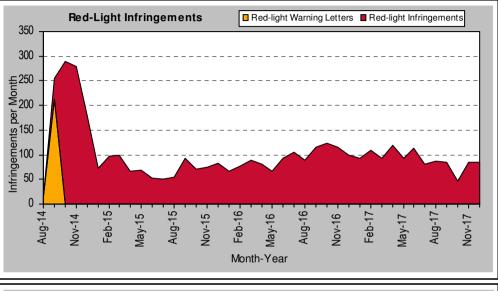
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2014

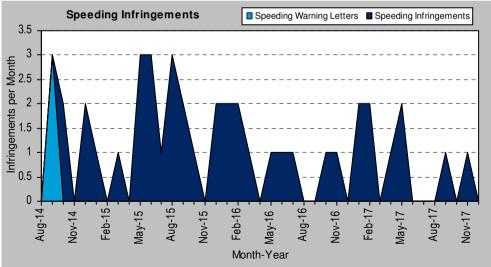
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



### Infringements at enforced intersection





# 7175 Rockdale - Bestic Street at West Botany Street

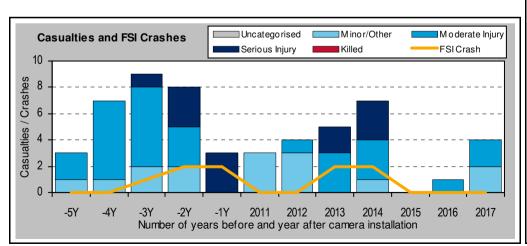
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Bestic Street and West Botany Street commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

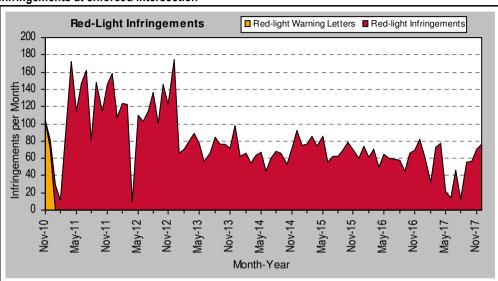
# Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	7	5	↓ 29%
Moderate Injuries	17	9	↓ 47%
Minor / Other Injuries	6	3	↓ 50%
Total Casualties:	30	17	↓ 43%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	4	↓ 20%
Casualty Crashes	18	13	↓ 28%
Adjacent Casualty Crashes	8	6	↓ 25%
Right Through Casualty Crashes	8	2	↓ 75%
Rear End Casualty Crashes	0	3	Increase

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 12 August 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





# 7131/7132 Rockdale - Princes Highway at Bay Street / The Seven Ways

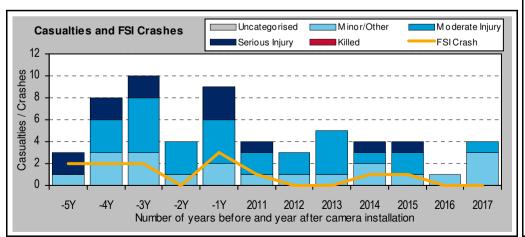
- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Princes Highway and The Seven Ways (northbound) commenced issuing warning letters in July 2010.
- The camera at the intersection of Princes Highway and Bay Street (southbound) commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

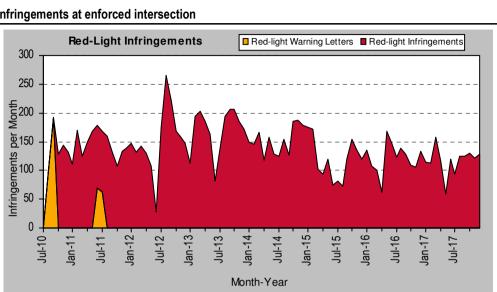
# Casualties and casualty crashes at enforced intersection

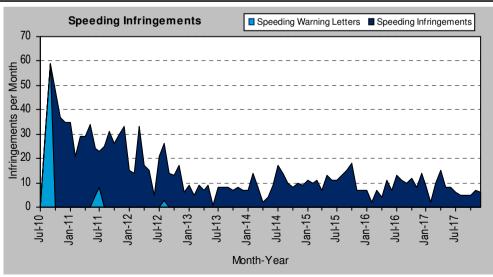
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	9	2	↓ 78%
Moderate Injuries	15	8	↓ 47%
Minor / Other Injuries	10	8	↓ 20%
Total Casualties:	34	18	↓ 47%
Pedestrian Casualties	3	2	↓ 33%
Fatal and Serious Crashes	9	1	↓ 89%
Casualty Crashes	27	15	↓ 44%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	11	4	↓ 64%
Rear End Casualty Crashes	6	7	↑ 17%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 April 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





# 7328 Rooty Hill - Woodstock Avenue at M7 northbound off-ramp

- There is one camera at this intersection.
- The camera at the intersection of Woodstock Avenue and M7 Northbound off ramp (Northbound) commenced issuing warning letters in July 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

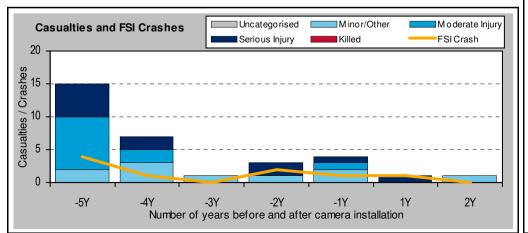
### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 157 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	10	2	↓ 59%
Moderate Injuries	11	0	↓ 100%
Minor / Other Injuries	9	2	↓ 54%
Total Casualties:	30	4	↓ 73%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	8	2	↓ 49%
Casualty Crashes	17	4	↓ 52%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	0	1	Increase
Rear End Casualty Crashes	2	0	↓ 100%

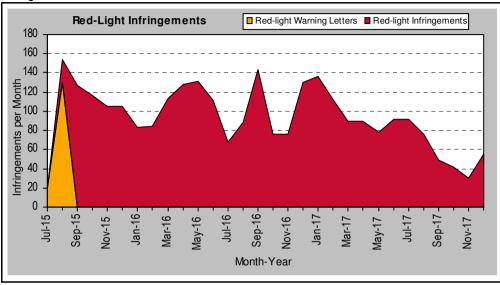
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 April 2015

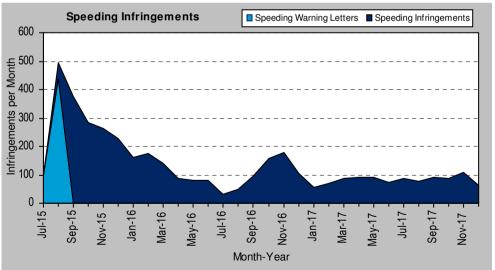
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





# 7169 Roselands - King Georges Road at Moorefields Road

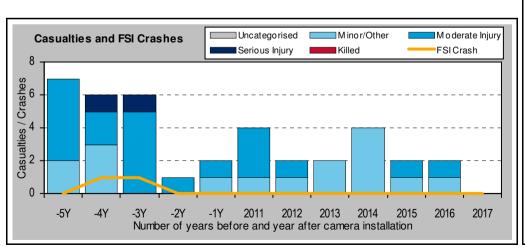
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of King Georges Road and Moorefields Road commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued. Speed limit changed from 70 to 60 in October 2011.

# Casualties and casualty crashes at enforced intersection

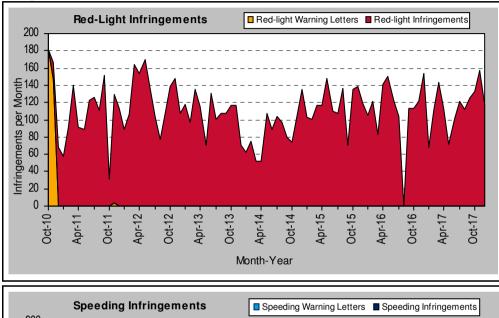
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	0	↓ 100%
Moderate Injuries	14	2	↓ 86%
Minor / Other Injuries	6	8	↑ 33%
Total Casualties:	22	10	↓ 55%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	0	↓ 100%
Casualty Crashes	13	9	↓ 31%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	4	0	↓ 100%
Rear End Casualty Crashes	6	7	↑ 17%

 $^{1}$  Ending 91 days before the start of the warning letter period, 2 July 2010  $^{2}$  Ending 31 December 2017



Status: Retain.







# 7114|7115 Roselands / Wiley Park - Canterbury Road at King Georges Road

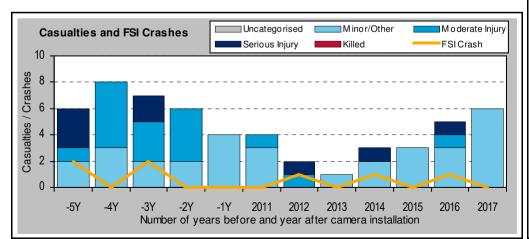
- There are two cameras at this intersection.
- The camera at the intersection of Canterbury Road and King Georges Road (westbound) commenced issuing warning letters in June 2010.
- The camera at the intersection of Canterbury Road and King Georges Road (eastbound) commenced issuing warning letters in August 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

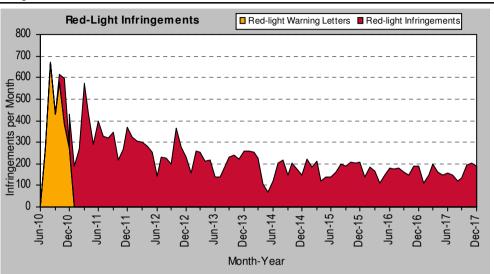
### Casualties and casualty crashes at enforced intersection

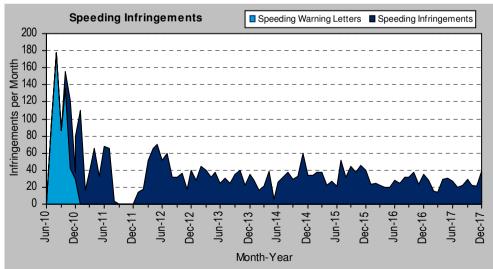
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	2	↓ 60%
Moderate Injuries	13	1	↓ 92%
Minor / Other Injuries	13	15	↑ 15%
Total Casualties:	31	18	↓ 42%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	2	↓ 50%
Casualty Crashes	26	15	↓ 42%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	3	1	↓ 67%
Rear End Casualty Crashes	15	9	↓ 40%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 March 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





## 7163 Rozelle - Victoria Road at Evans Street

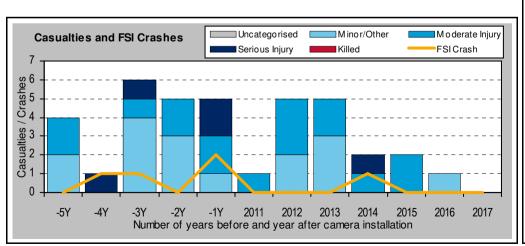
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Victoria Road and Evans Street commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

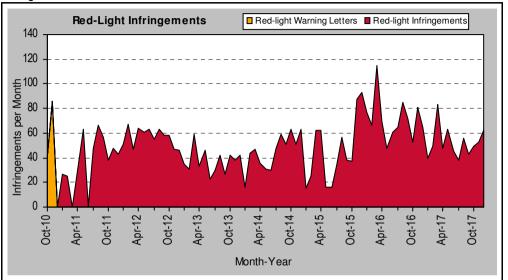
## Casualties and casualty crashes at enforced intersection

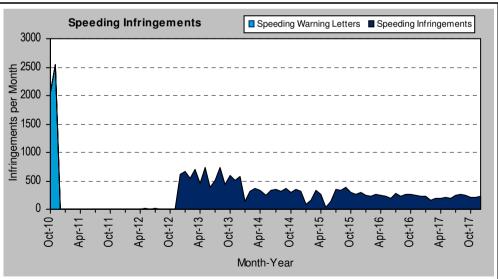
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	1	↓ 75%
Moderate Injuries	7	5	↓ 29%
Minor / Other Injuries	10	4	↓ 60%
Total Casualties:	21	10	↓ 52%
Pedestrian Casualties	2	1	↓ 50%
Fatal and Serious Crashes	4	1	↓ 75%
Casualty Crashes	18	10	↓ 44%
Adjacent Casualty Crashes	8	2	↓ 75%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	3	6	↑ 100%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 16 July 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





## 7152 Rozelle - Wellington Street at Victoria Road

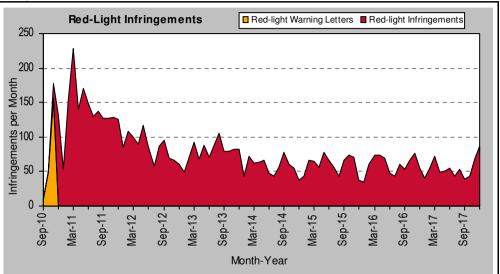
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Wellington Street and Victoria Road commenced issuing warning letters in September 2010. This camera enforces red-light running only.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

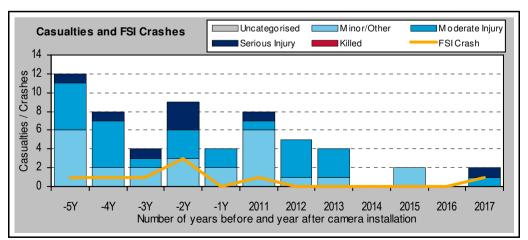
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	1	↓ 83%
Moderate Injuries	16	4	↓ 75%
Minor / Other Injuries	15	3	↓ 80%
Total Casualties:	37	8	↓ 78%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	6	1	↓ 83%
Casualty Crashes	26	7	↓ 73%
Adjacent Casualty Crashes	7	1	↓ 86%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	4	4	↓ 0%

## Infringements at enforced intersection



<sup>1</sup> Ending 91 days before the start of the warning letter period, 29 June 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.

## 7203 Ryde - Victoria Road at Devlin Street

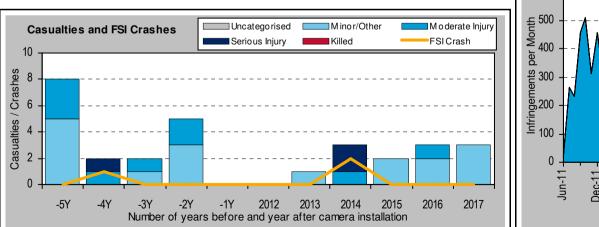
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Victoria Road and Devlin Street commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

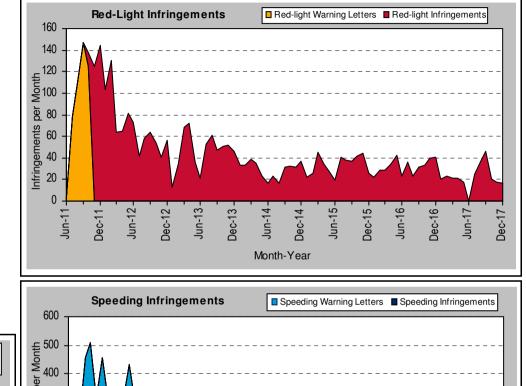
## Casualties and casualty crashes at enforced intersection

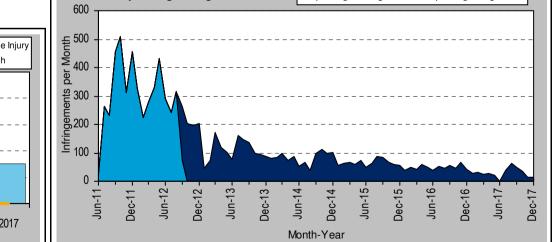
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	2	↑ 100%
Moderate Injuries	7	2	↓ 71%
Minor / Other Injuries	9	8	↓ 11%
Total Casualties:	17	12	↓ 29%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	1	2	↑ 100%
Casualty Crashes	13	11	↓ 15%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	6	2	↓ 67%
Rear End Casualty Crashes	3	4	↑ 33%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 March 2011 <sup>2</sup> Ending 31 December 2017



#### Infringements at enforced intersection





Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

## 7273 Seven Hills - Abbott Road at Station Road

- There is one camera at this intersection.
- The camera at the intersection of Abbott Road and Station Road commenced issuing warning letters in January 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

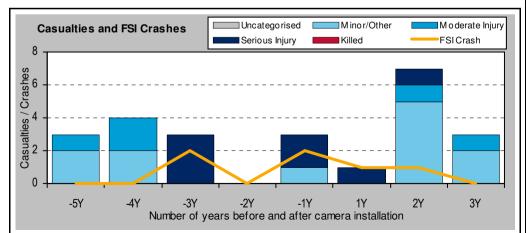
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 347 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	3	↓ 24%
Moderate Injuries	3	2	↓ 16%
Minor / Other Injuries	5	8	↑ 102%
Total Casualties:	13	13	↑ 27%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	3	↓ 5%
Casualty Crashes	11	11	↑ 27%
Adjacent Casualty Crashes	1	1	↑ 27%
Right Through Casualty Crashes	3	1	↓ 58%
Rear End Casualty Crashes	3	4	↑ 69%

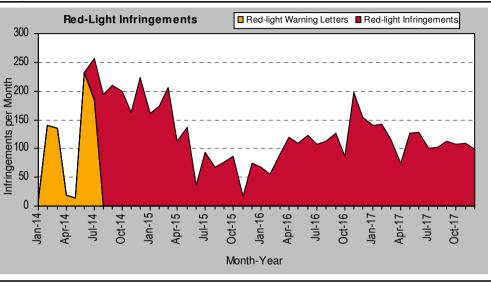
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 October 2013

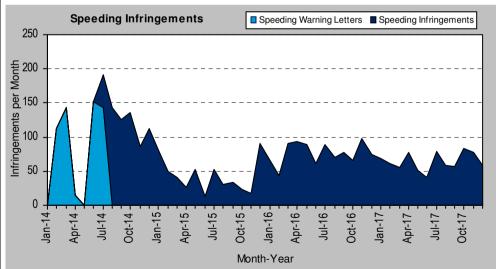
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.









# 7113 Silverwater - Silverwater Road at M4 eastbound on-ramp

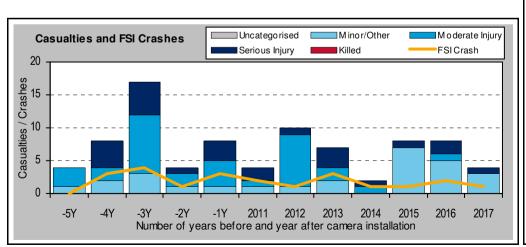
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Silverwater Road and M4 Eastbound On-ramp commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

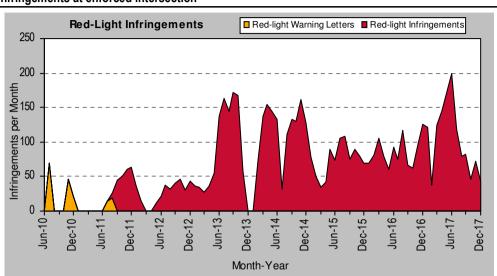
## Casualties and casualty crashes at enforced intersection

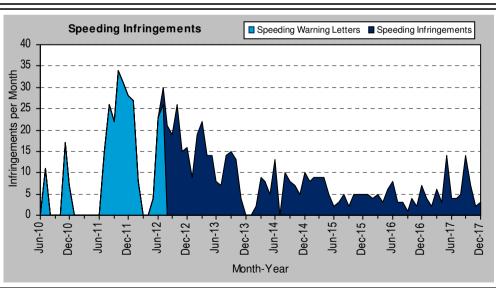
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	13	8	↓ 38%
Moderate Injuries	20	4	↓ 80%
Minor / Other Injuries	8	17	↑ 113%
Total Casualties:	41	29	↓ 29%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	11	8	↓ 27%
Casualty Crashes	28	23	↓ 18%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	19	4	↓ 79%
Rear End Casualty Crashes	3	12	↑ 300%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 30 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





# 7280 Smithfield - Cumberland Highway at The Horsley Drive

- There is one camera at this intersection.
- The camera at the intersection of Cumberland Highway and The Horsley Drive commenced issuing warning letters in November 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

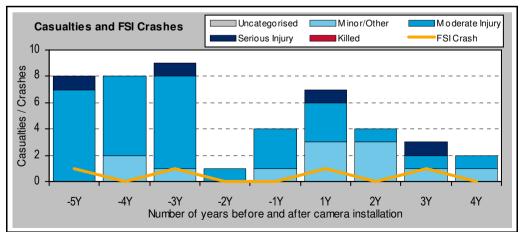
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 32 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	2	↑ 22%
Moderate Injuries	24	6	↓ 69%
Minor / Other Injuries	4	8	↑ 145%
Total Casualties:	30	16	↓ 35%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	2	2	↑ 22%
Casualty Crashes	19	13	↓ 16%
Adjacent Casualty Crashes	7	0	↓ 100%
Right Through Casualty Crashes	1	1	↑ 22%
Rear End Casualty Crashes	5	6	↑ 47%

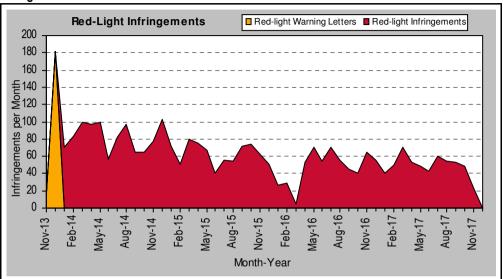
<sup>1</sup> Ending 91 days before the start of the warning letter period, 30 August 2013

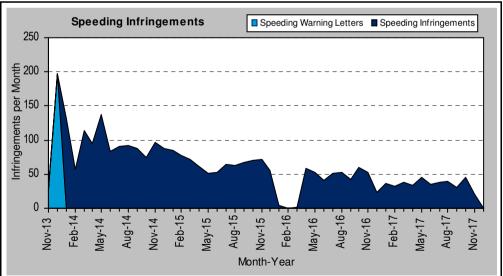
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7337 Smithfield - Polding Street at The Boulevarde

- There is one camera at this intersection.
- The camera at the intersection of Polding Street and The Boulevarde commenced issuing warning letters in November 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

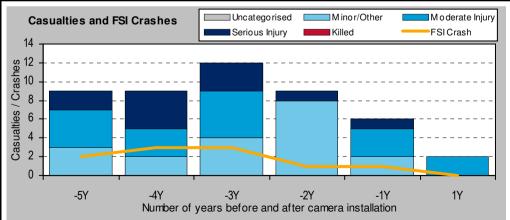
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 43 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	11	0	↓ 100%
Moderate Injuries	15	2	↓ 40%
Minor / Other Injuries	19	0	↓ 100%
Total Casualties:	45	2	↓ 80%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	10	0	↓ 100%
Casualty Crashes	26	2	↓ 66%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	15	1	↓ 70%
Rear End Casualty Crashes	2	0	↓ 100%

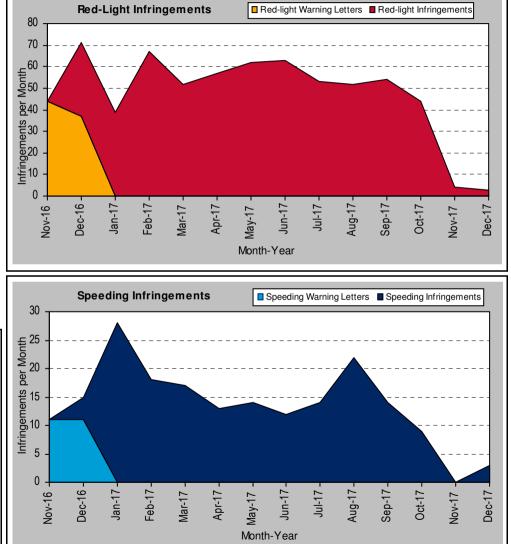
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 August 2016

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



#### Infringements at enforced intersection



# 7281 Smithfield - The Horsley Drive at Gipps Street

- There is one camera at this intersection.
- The camera at the intersection of The Horsley Drive and Gipps Street commenced issuing warning letters in August 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

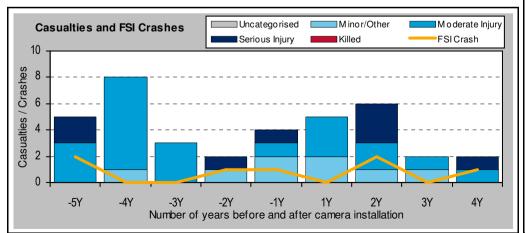
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 126 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	4	↑ 15%
Moderate Injuries	14	7	↓ 42%
Minor / Other Injuries	4	4	↑ 15%
Total Casualties:	22	15	↓ 22%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	2	↓ 42%
Casualty Crashes	15	12	↓ 8%
Adjacent Casualty Crashes	3	7	↑ 168%
Right Through Casualty Crashes	7	1	↓ 84%
Rear End Casualty Crashes	2	1	↓ 42%

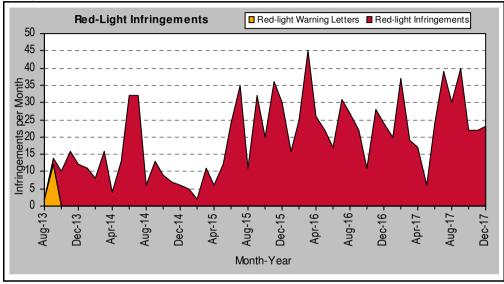
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 May 2013

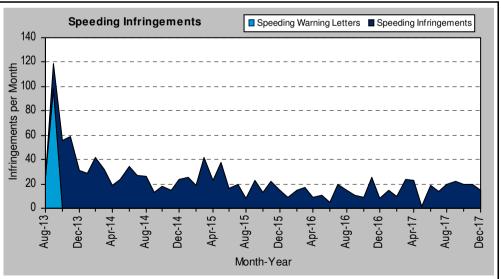
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

## 7201 Smithfield - Victoria Street at Hassall Street

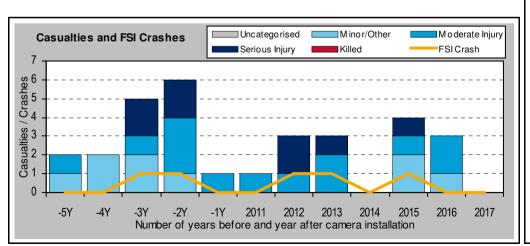
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Victoria Street and Hassall Street commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

## Casualties and casualty crashes at enforced intersection

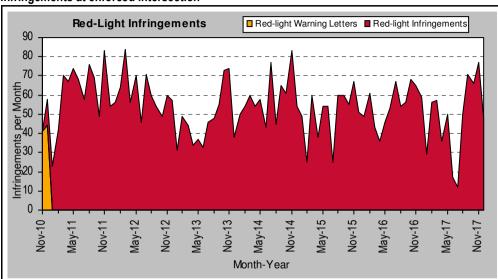
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	2	↓ 50%
Moderate Injuries	6	5	↓ 17%
Minor / Other Injuries	6	3	↓ 50%
Total Casualties:	16	10	↓ 38%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	2	↓0%
Casualty Crashes	11	7	↓ 36%
Adjacent Casualty Crashes	3	2	↓ 33%
Right Through Casualty Crashes	5	3	↓ 40%
Rear End Casualty Crashes	1	2	↑ 100%

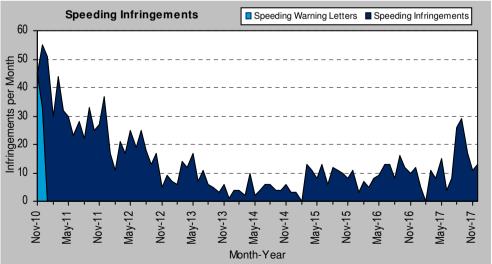
 $^{1}$  Ending 91 days before the start of the warning letter period, 12 August 2010  $^{2}$  Ending 31 December 2017



Status: Retain.







## 7191 South Penrith - Parker Street at Jamison Road

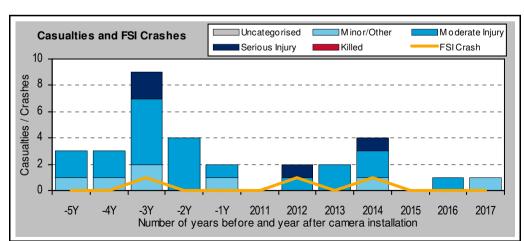
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Parker Street and Jamison Road commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

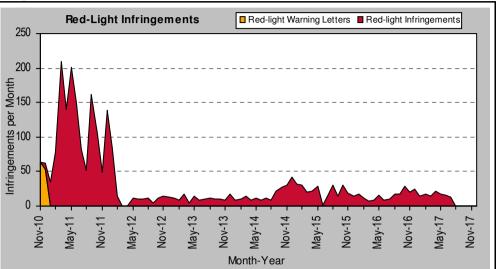
#### Casualties and casualty crashes at enforced intersection

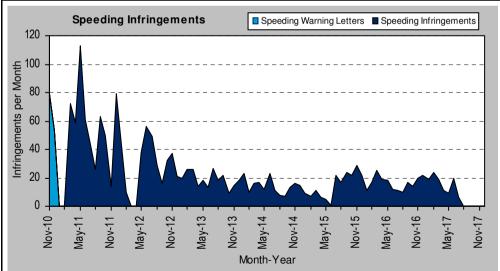
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	1	↓ 50%
Moderate Injuries	14	5	↓ 64%
Minor / Other Injuries	5	2	↓ 60%
Total Casualties:	21	8	↓ 62%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	1	↓ 0%
Casualty Crashes	14	8	↓ 43%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	7	3	↓ 57%
Rear End Casualty Crashes	3	4	↑ 33%

 $^{1}$  Ending 91 days before the start of the warning letter period, 12 August 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





## 7179 South Wentworthville - Cumberland Highway at Old Prospect Road

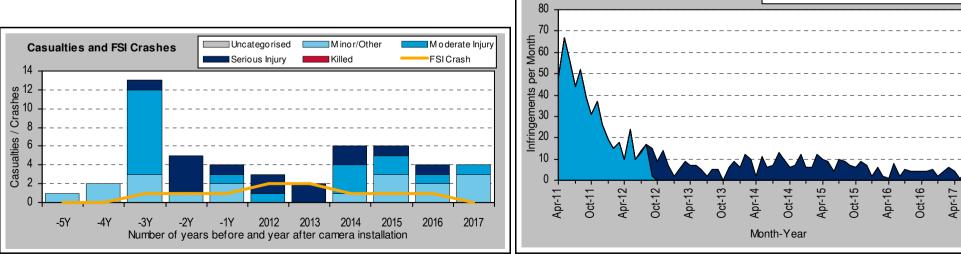
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Cumberland Highway and Old Prospect Road commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	6	6	↓ 0%
Moderate Injuries	10	7	↓ 30%
Minor / Other Injuries	9	9	↓ 0%
Total Casualties:	25	22	↓ 12%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	3	5	↑ 67%
Casualty Crashes	15	16	↑ 7%
Adjacent Casualty Crashes	1	2	↑ 100%
Right Through Casualty Crashes	5	3	↓ 40%
Rear End Casualty Crashes	5	5	↓ 0%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 6 January 2011 <sup>2</sup> Ending 31 December 2017



## Infringements at enforced intersection

Apr-12

Oct-12

**Speeding Infringements** 

Apr-13

Oct-13

Apr-14

Oct-14

Month-Year

140 120

> > Apr-11

Oct-11

Infringements per Month

**Red-Light Infringements** 

Red-light Warning Letters Red-light Infringements

Apr-15

Oct-15

Apr-16

Speeding Warning Letters Speeding Infringements

Oct-16

Apr-17

Oct-17

Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

Oct-17

# 7291 7292 Spring Hill - Springhill Road at Masters Road

- There are two cameras at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Springhill Road and Masters Road (northbound) commenced issuing warning letters in December 2013.
- The camera at the intersection of Springhill Road and Masters Road (southbound) commenced issuing warning letters in January 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

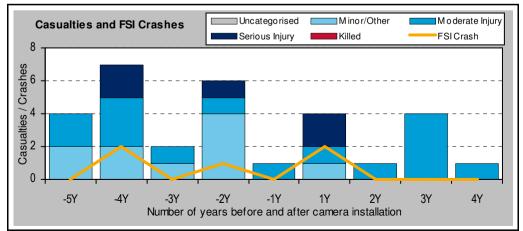
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 17 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	3	2	↓ 18%
Moderate Injuries	8	7	↑ 8%
Minor / Other Injuries	9	1	↓ 86%
Total Casualties:	20	10	↓ 38%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	3	2	↓ 18%
Casualty Crashes	15	8	↓ 34%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	5	1	↓ 75%
Rear End Casualty Crashes	5	2	↓ 51%

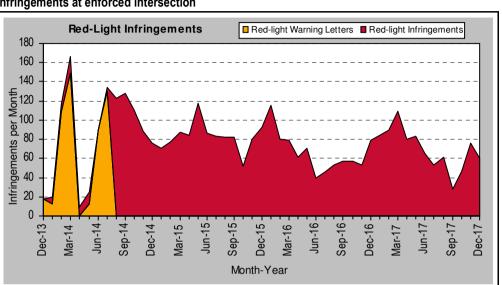
<sup>1</sup> Ending 91 days before the start of the warning letter period, 14 September 2013

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Status: Insufficient data (<5 years) to reliably assess.



#### Speeding Infringements Speeding Warning Letters Speeding Infringements 250 Month Month <u>ັອ</u> 150 Infringements 100 50 0 Jun-15. Sep-15. Jun-16 Sep-16. Dec-13 Jun-14 Sep-14 Dec-14 Mar-15 Dec-15 Mar-16 Dec-16 Jun-17 Sep-17 Dec-17 Mar-14 Mar-17 Month-Year

# 7122|7123 St Marys - Great Western Highway at Charles Hackett Drive / Pages Road

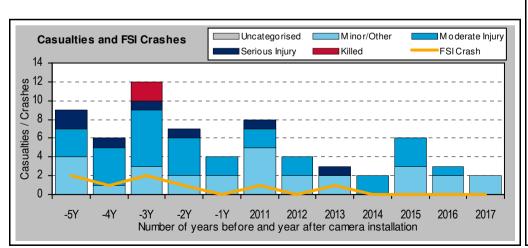
- There are two cameras at this intersection.
- Both cameras at the intersection of Great Western Highway and Charles Hackett Drive commenced issuing warning letters in July 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

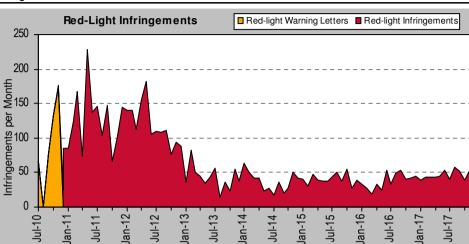
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	2	0	↓ 100%
Serious Injuries	5	1	↓ 80%
Moderate Injuries	19	6	↓ 68%
Minor / Other Injuries	12	9	↓ 25%
Total Casualties:	38	16	↓ 58%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	6	1	↓ 83%
Casualty Crashes	24	12	↓ 50%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	16	8	↓ 50%
Rear End Casualty Crashes	2	4	↑ 100%

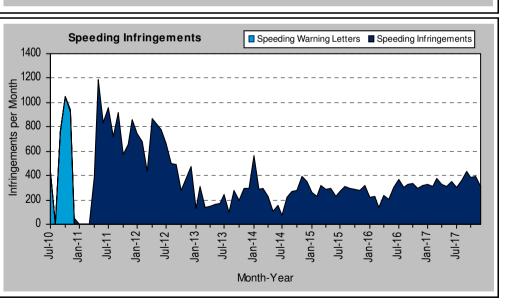
 $^{1}$  Ending 91 days before the start of the warning letter period, 8 April 2010  $^{2}$  Ending 31 December 2017



Status: Retain.



#### Infringements at enforced intersection



Month-Year

# 7284 St Marys - Mamre Road at Saddington Street (school zone)

- There is one camera at this intersection.
- The camera at the intersection of Mamre Road and Saddington Street commenced issuing warning letters in September 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

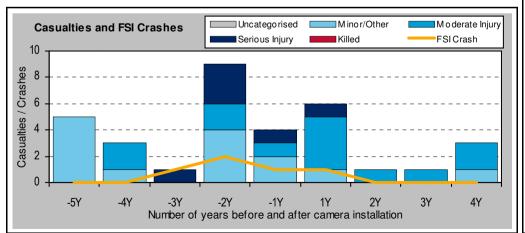
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 96 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	1	↓ 77%
Moderate Injuries	5	8	↑ 88%
Minor / Other Injuries	12	2	↓ 80%
Total Casualties:	22	11	↓ 41%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	4	1	↓ 71%
Casualty Crashes	14	9	↓ 25%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	6	4	↓ 22%
Rear End Casualty Crashes	0	3	Increase

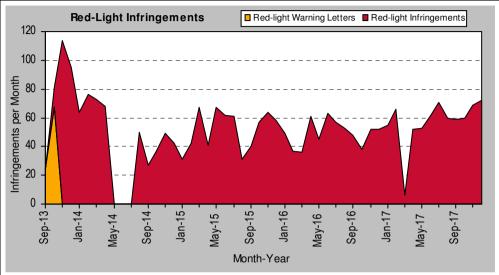
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 June 2013

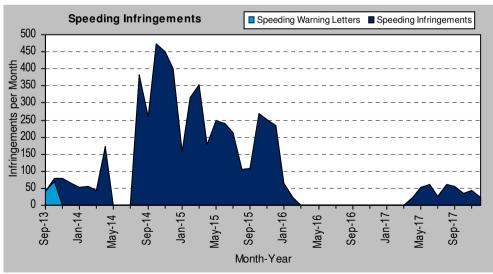
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7317 St Peters - Princes Highway at Sydney Park Road

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Princes Highway and Sydney Park Road commenced issuing warning letters in October 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

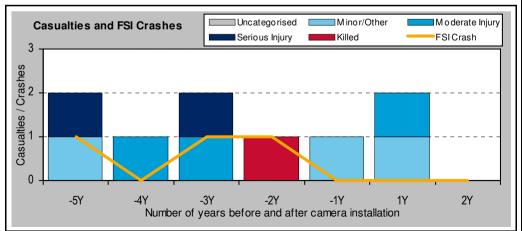
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 85 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	1	0	↓ 100%
Serious Injuries	2	0	↓ 100%
Moderate Injuries	2	1	↑ 12%
Minor / Other Injuries	2	1	↑ 12%
Total Casualties:	7	2	↓ 36%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	3	0	↓ 100%
Casualty Crashes	7	2	↓ 36%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	1	1	↑ 124%
Rear End Casualty Crashes	0	1	Increase

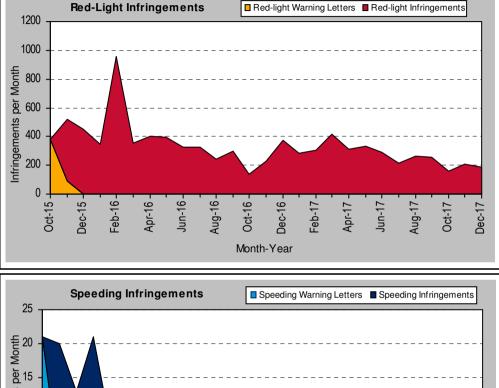
<sup>1</sup> Ending 91 days before the start of the warning letter period, 9 July 2015

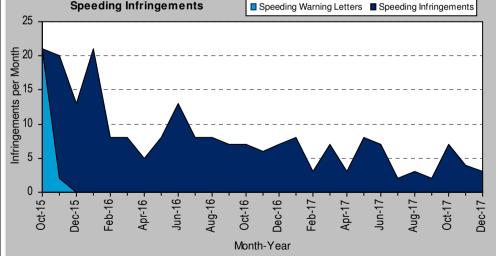
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





# 7154 Strathfield - Arthur Street at Centenary Drive

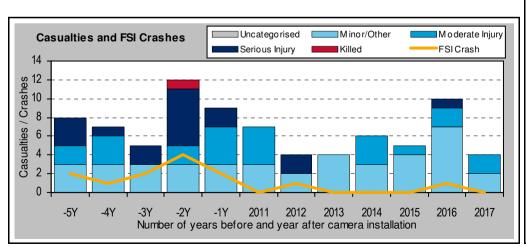
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Arthur Street and Centenary Drive commenced issuing warning letters in October 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

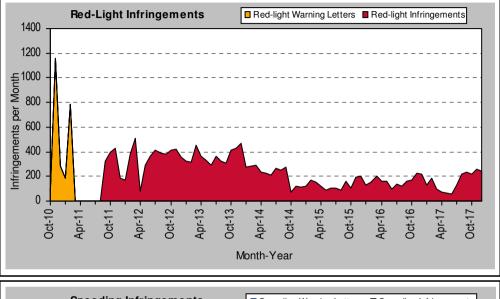
## Casualties and casualty crashes at enforced intersection

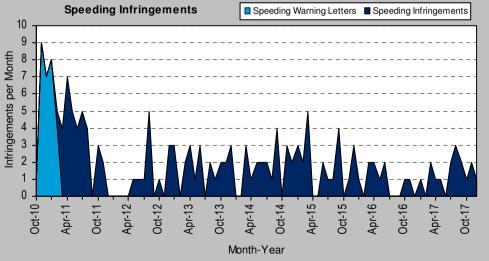
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	1	0	↓ 100%
Serious Injuries	14	1	↓ 93%
Moderate Injuries	11	8	↓ 27%
Minor / Other Injuries	15	20	↑ 33%
Total Casualties:	41	29	↓ 29%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	10	1	↓ 90%
Casualty Crashes	29	24	↓ 17%
Adjacent Casualty Crashes	11	1	↓ 91%
Right Through Casualty Crashes	1	4	↑ 300%
Rear End Casualty Crashes	13	12	↓ 8%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 28 July 2010  $^{\rm 2}$  Ending 31 December 2017



## Infringements at enforced intersection





Status: Retain.

# 7105 Surry Hills - Cleveland Street at South Dowling Street

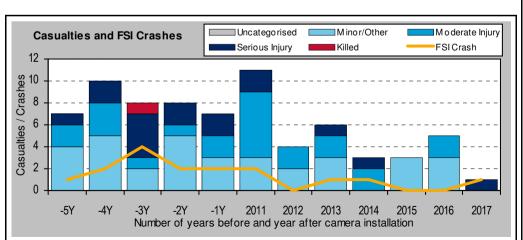
- There is one camera at this intersection.
- The camera at the intersection of Cleveland Street and South Dowling Street commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

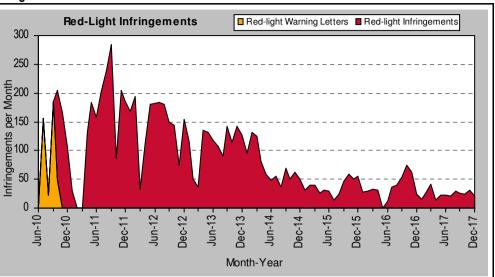
#### Casualties and casualty crashes at enforced intersection

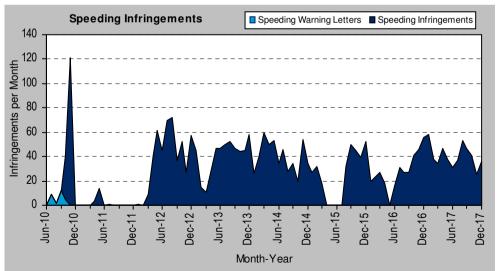
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	1	0	↓ 100%
Serious Injuries	11	3	↓ 73%
Moderate Injuries	9	6	↓ 33%
Minor / Other Injuries	19	9	↓ 53%
Total Casualties:	40	18	↓ 55%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	11	3	↓ 73%
Casualty Crashes	32	17	↓ 47%
Adjacent Casualty Crashes	7	3	↓ 57%
Right Through Casualty Crashes	6	1	↓ 83%
Rear End Casualty Crashes	10	9	↓ 10%

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 31 March 2010  $^{\rm 2}$  Ending 31 December 2017



Status: Retain.





## 7332 Surry Hills - Crown Street at Albion Street

- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Crown Street and Albion Street commenced issuing warning letters in October 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

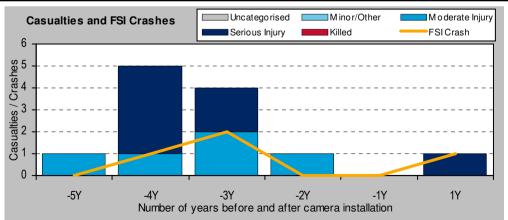
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 64 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	1	↓ 29%
Moderate Injuries	5	0	↓ 100%
Minor / Other Injuries	0	0	-
Total Casualties:	11	1	↓ 61%
Pedestrian Casualties	1	1	↑ 326%
Fatal and Serious Crashes	3	1	↑ 42%
Casualty Crashes	7	1	↓ 39%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	0	0	-

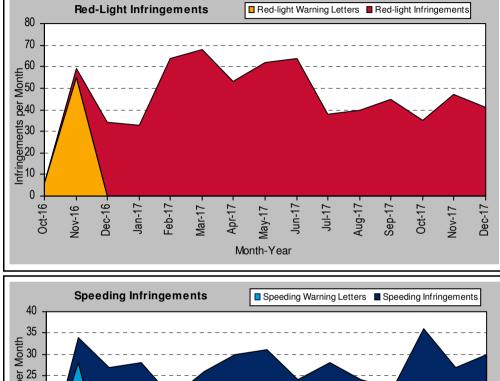
<sup>1</sup> Ending 91 days before the start of the warning letter period, 29 July 2016

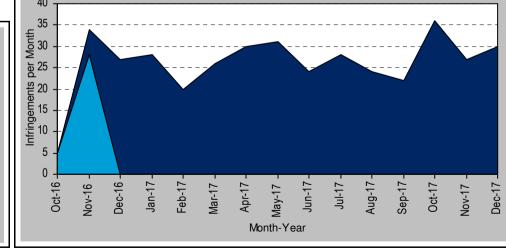
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7329 Surry Hills - Foveaux Street at Crown Street

- There is one camera at this intersection.
- The camera at the intersection of Foveaux Street and Crown Street commenced issuing warning letters in October 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

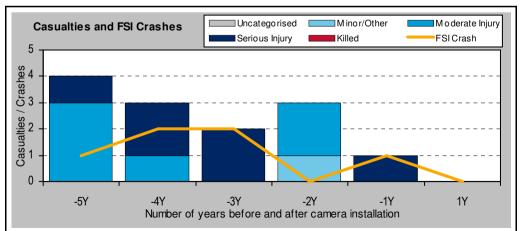
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 64 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	0	↓ 100%
Moderate Injuries	6	0	↓ 100%
Minor / Other Injuries	1	0	↓ 100%
Total Casualties:	13	0	↓ 100%
Pedestrian Casualties	5	0	↓ 100%
Fatal and Serious Crashes	6	0	↓ 100%
Casualty Crashes	12	0	↓ 100%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	1	0	↓ 100%
Rear End Casualty Crashes	2	0	↓ 100%

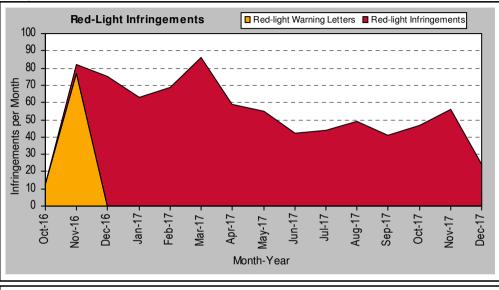
<sup>1</sup> Ending 91 days before the start of the warning letter period, 29 July 2016

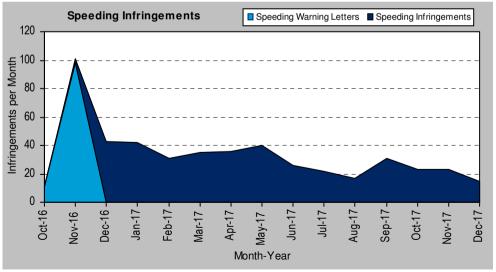
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7295 Sydney - Elizabeth Street at Park Street

- There is one camera at this intersection.
- The camera at the intersection of Elizabeth Street and Park Street commenced issuing warning letters in September 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

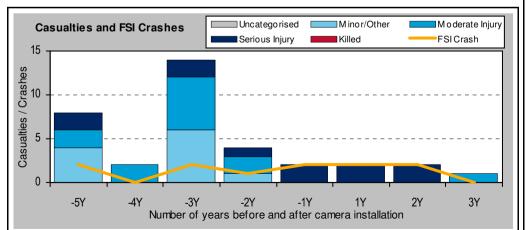
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 92 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	7	4	↓ 12%
Moderate Injuries	12	1	↓ 87%
Minor / Other Injuries	11	1	↓ 86%
Total Casualties:	30	6	↓ 69%
Pedestrian Casualties	9	4	↓ 32%
Fatal and Serious Crashes	7	4	↓ 12%
Casualty Crashes	25	6	↓ 63%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	2	0	↓ 100%

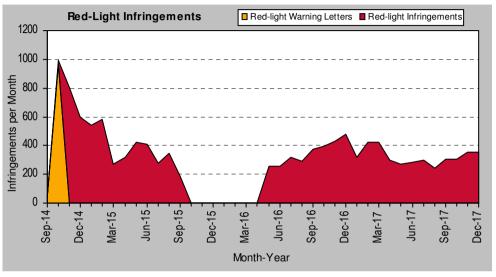
<sup>1</sup> Ending 91 days before the start of the warning letter period, 1 July 2014

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection



#### Speeding Infringements Speeding Warning Letters Speeding Infringements 2000 1800 ftion Here 1400 ້ອຼັ 1200 lts 1000 Infringemei 800 600 400 200 0 Jun-15 – Jun-16 -Sep-16 -Dec-14 ò Dec-15 . Dec-16 Sep-14 Mar-15 Mar-16 Sep-17 Dec-17 Mar-17 Jun-17 Sep-1 Month-Year

## 7177 Thornleigh - Pennant Hills Road at Parkes Street

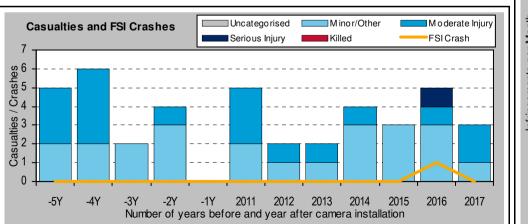
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Pennant Hills Road and Parkes Street commenced issuing warning letters in December 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

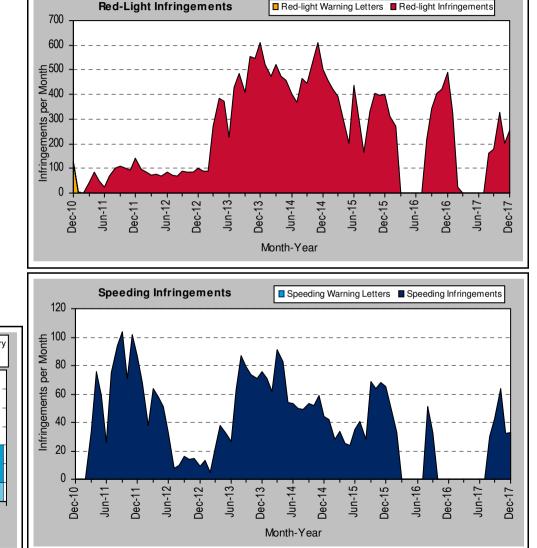
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	0	1	Increase
Moderate Injuries	8	5	↓ 38%
Minor / Other Injuries	9	11	↑ 22%
Total Casualties:	17	17	↓ 0%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	0	1	Increase
Casualty Crashes	14	14	↓ 0%
Adjacent Casualty Crashes	0	1	Increase
Right Through Casualty Crashes	1	1	↓ 0%
Rear End Casualty Crashes	9	9	↓ 0%

 $^1$  Ending 91 days before the start of the warning letter period, 15 September 2010  $^2$  Ending 31 December 2017







Status: Retain and Monitor. The previous wet-film red light camera may have influenced the before period data. Annual traffic counts have increased across NSW.

## 7188 Ultimo - Wattle Street at William Henry Street

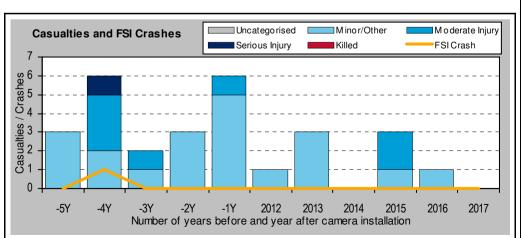
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Wattle Street and William Henry Street commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

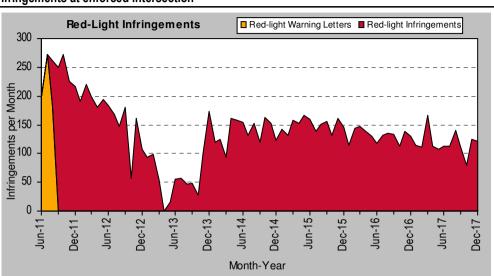
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	0	↓ 100%
Moderate Injuries	5	2	↓ 60%
Minor / Other Injuries	14	5	↓ 64%
Total Casualties:	20	7	↓ 65%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	0	↓ 100%
Casualty Crashes	15	5	↓ 67%
Adjacent Casualty Crashes	7	2	↓ 71%
Right Through Casualty Crashes	3	0	↓ 100%
Rear End Casualty Crashes	2	2	↓ 0%

 $^{1}$  Ending 91 days before the start of the warning letter period, 11 March 2011  $^{2}$  Ending 31 December 2017



Status: Retain.



#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 3000 두 2500 원 2000 2000 per 1500 1000 500 500 0 Jun-15. Jun-12. Dec-12. Jun-13. Dec-13. Jun-14. Dec-15 Jun-16. Dec-16 Jun-11 Dec-11 Dec-14 Jun-17 Dec-17 Month-Year

# 7217 Unanderra - Princes Highway at Five Islands Road

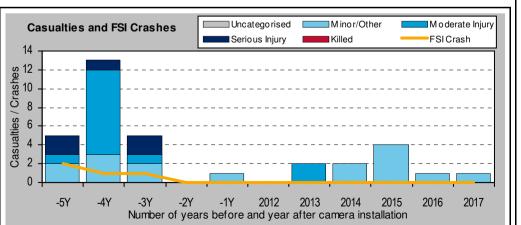
- There is one camera at this intersection.
- The camera at the intersection of Princes Highway and Five Islands Road commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

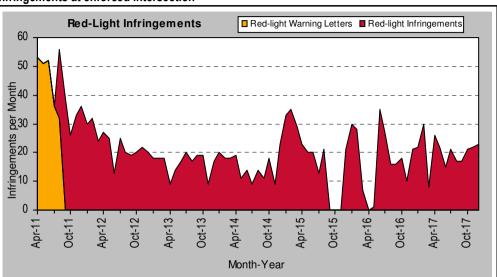
#### Casualties and casualty crashes at enforced intersection

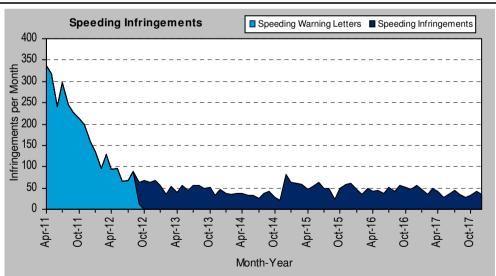
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	0	↓ 100%
Moderate Injuries	11	2	↓ 82%
Minor / Other Injuries	8	8	↓ 0%
Total Casualties:	24	10	↓ 58%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	4	0	↓ 100%
Casualty Crashes	12	9	↓ 25%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	10	2	↓ 80%
Rear End Casualty Crashes	1	4	↑ 300%

 $^{1}$  Ending 91 days before the start of the warning letter period, 11 January 2011  $^{2}$  Ending 31 December 2017



Status: Retain.





# 7307 Waitara - Pacific Highway at Romsey Street (school zone)

- There is one camera at this intersection.
- The camera at the intersection of Pacific Highway and Romsey Street commenced issuing warning letters in September 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

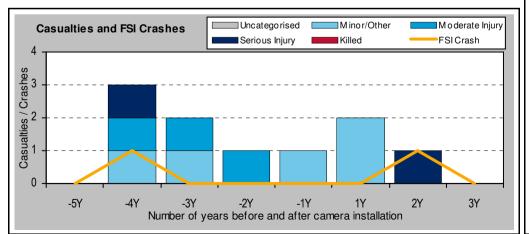
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 92 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	1	1	↑ 54%
Moderate Injuries	3	0	↓ 100%
Minor / Other Injuries	3	2	↑ 2%
Total Casualties:	7	3	↓ 34%
Pedestrian Casualties	1	0	↓ 100%
Fatal and Serious Crashes	1	1	↑ 54%
Casualty Crashes	7	3	↓ 34%
Adjacent Casualty Crashes	1	0	↓ 100%
Right Through Casualty Crashes	3	2	↑ 2%
Rear End Casualty Crashes	0	1	Increase

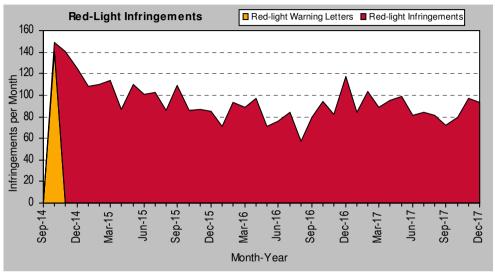
<sup>1</sup> Ending 91 days before the start of the warning letter period, 1 July 2014

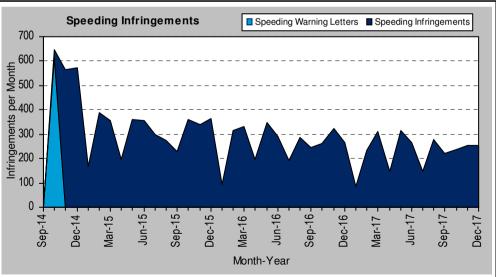
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7289 Wallsend - Thomas Street at Metcalfe Street

- There is one camera at this intersection.
- The camera at the intersection of Thomas Street and Metcalfe Street commenced issuing warning letters in September 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

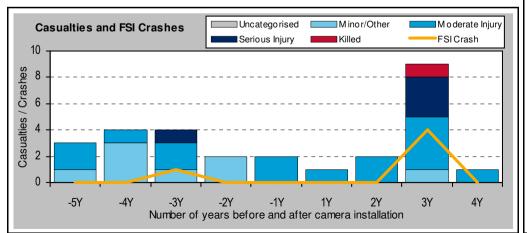
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 96 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	1	Increase
Serious Injuries	1	3	↑ 252%
Moderate Injuries	7	8	↑ 34%
Minor / Other Injuries	7	1	↓ 83%
Total Casualties:	15	13	↑ 2%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	3	↑ 252%
Casualty Crashes	11	9	↓ 4%
Adjacent Casualty Crashes	2	2	↑ 17%
Right Through Casualty Crashes	2	1	↓ 41%
Rear End Casualty Crashes	7	6	↑ 1%

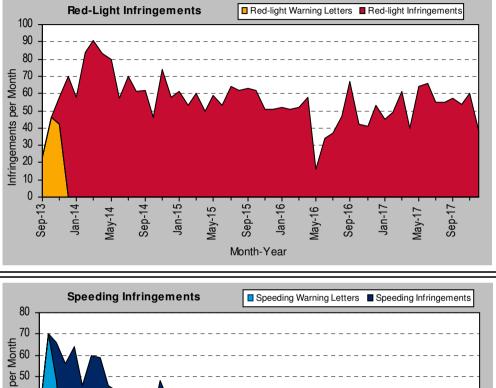
<sup>1</sup> Ending 91 days before the start of the warning letter period, 27 June 2013

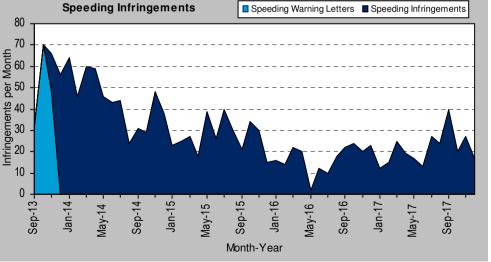
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7290 Warrawong - King Street (Grand Pacific Drive) at Cowper Street

- There is one camera at this intersection.
- The camera at the intersection of King Street (Grand Pacific Drive) and Cowper Street commenced issuing warning letters in October 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

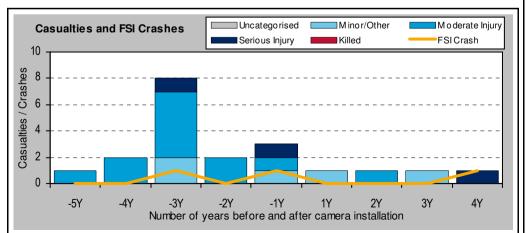
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 70 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	2	1	↓ 40%
Moderate Injuries	11	1	↓ 89%
Minor / Other Injuries	3	4	↑ 59%
Total Casualties:	16	6	↓ 55%
Pedestrian Casualties	1	2	↑ 139%
Fatal and Serious Crashes	2	1	↓ 40%
Casualty Crashes	8	5	↓ 25%
Adjacent Casualty Crashes	2	0	↓ 100%
Right Through Casualty Crashes	1	1	↑ 19%
Rear End Casualty Crashes	3	0	↓ 100%

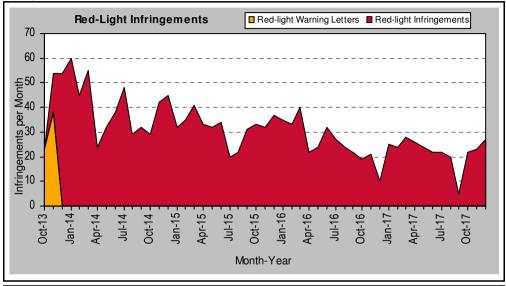
<sup>1</sup> Ending 91 days before the start of the warning letter period, 23 July 2013

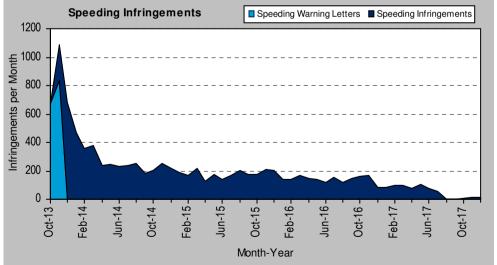
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7176 Warwick Farm - Hume Highway at Bigge Street

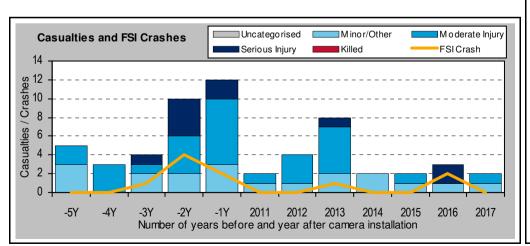
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Hume Highway and Bigge Street commenced issuing warning letters in November 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

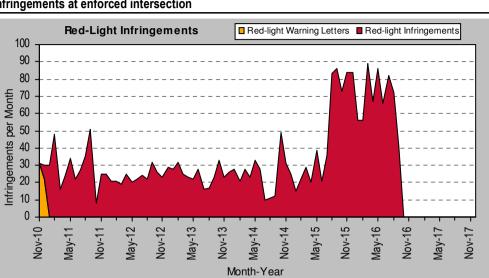
## Casualties and casualty crashes at enforced intersection

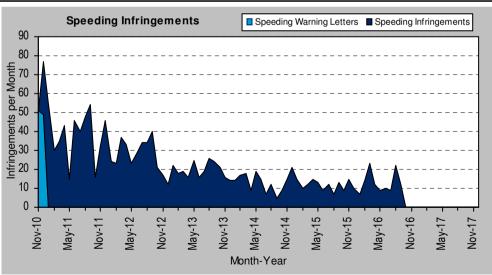
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	7	3	↓ 57%
Moderate Injuries	17	7	↓ 59%
Minor / Other Injuries	10	7	↓ 30%
Total Casualties:	34	17	↓ 50%
Pedestrian Casualties	1	1	↓ 0%
Fatal and Serious Crashes	7	3	↓ 57%
Casualty Crashes	28	15	↓ 46%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	10	3	↓ 70%
Rear End Casualty Crashes	12	8	↓ 33%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 16 August 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.





## 7331 Waterloo - McEvoy Street at Elizabeth Street

- There is one camera at this intersection.
- The camera at the intersection of McEvoy Street and Elizabeth Street commenced issuing warning letters in November 2016.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

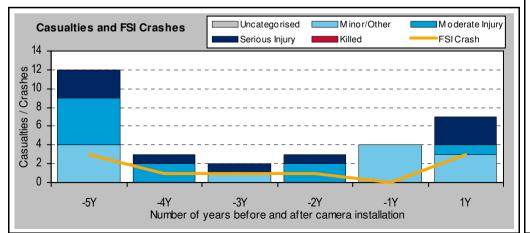
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	1 year and 31 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	6	3	↑ 131%
Moderate Injuries	9	1	↓ 49%
Minor / Other Injuries	9	3	↑ 54%
Total Casualties:	24	7	↑ 35%
Pedestrian Casualties	2	1	↑ 131%
Fatal and Serious Crashes	6	3	↑ 131%
Casualty Crashes	20	3	↓ 31%
Adjacent Casualty Crashes	4	0	↓ 100%
Right Through Casualty Crashes	11	2	↓ 16%
Rear End Casualty Crashes	1	0	↓ 100%

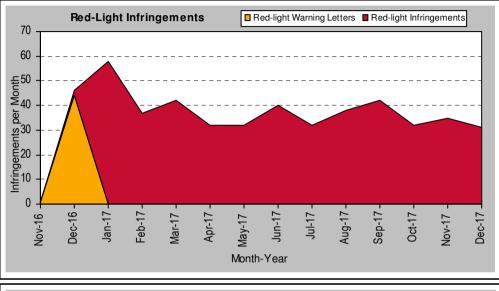
<sup>1</sup> Ending 91 days before the start of the warning letter period, 31 August 2016

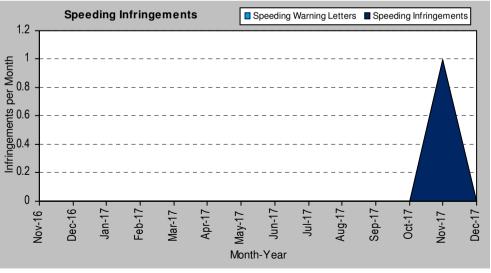
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

# 7164 Wentworthville - Great Western Highway at Station Street

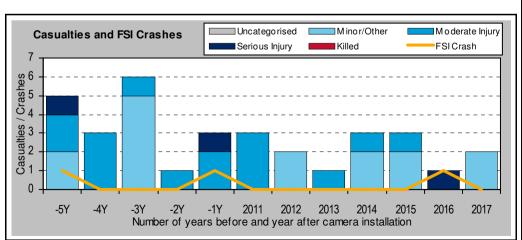
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Great Western Highway and Station Street commenced issuing warning letters in September 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

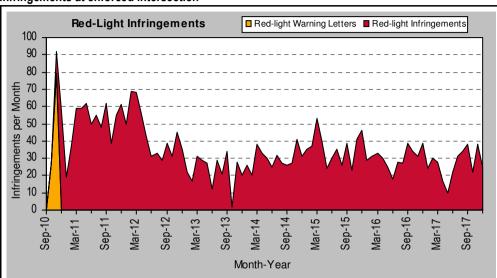
## Casualties and casualty crashes at enforced intersection

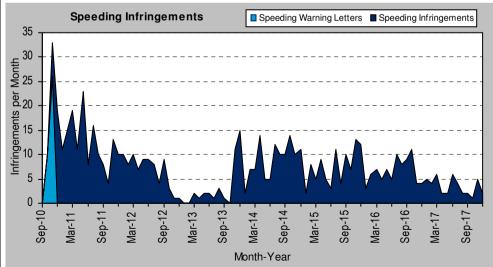
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	2	1	↓ 50%
Moderate Injuries	9	3	↓ 67%
Minor / Other Injuries	7	6	↓ 14%
Total Casualties:	18	10	↓ 44%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	15	9	↓ 40%
Adjacent Casualty Crashes	4	0	↓ 100%
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	6	6	↓ 0%

 $^{1}$  Ending 91 days before the start of the warning letter period, 28 June 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





## 7165 West Pennant Hills - Pennant Hills Road at Eaton Road

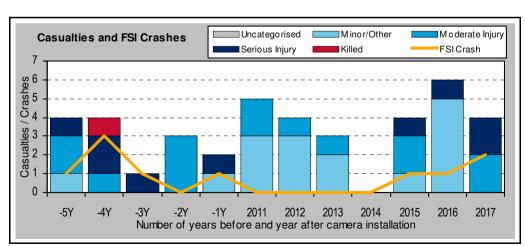
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Pennant Hills Road and Eaton Road commenced issuing warning letters in August 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

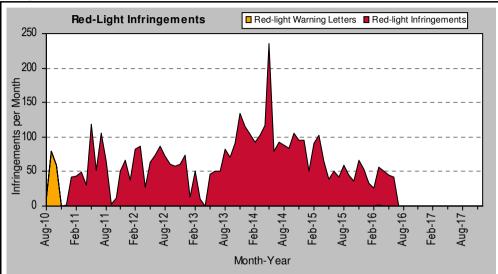
## Casualties and casualty crashes at enforced intersection

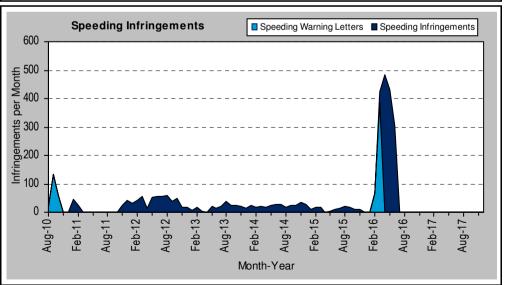
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	1	0	↓ 100%
Serious Injuries	5	4	↓ 20%
Moderate Injuries	6	5	↓ 17%
Minor / Other Injuries	2	8	↑ 300%
Total Casualties:	14	17	↑ 21%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	5	4	↓ 20%
Casualty Crashes	12	12	↓ 0%
Adjacent Casualty Crashes	1	2	↑ 100%
Right Through Casualty Crashes	4	3	↓ 25%
Rear End Casualty Crashes	3	5	↑ 67%

 $^{1}$  Ending 91 days before the start of the warning letter period, 27 May 2010  $^{2}$  Ending 31 December 2017



Status: Retain.





## 7184 West Pymble - Ryde Road at Lady Game Drive

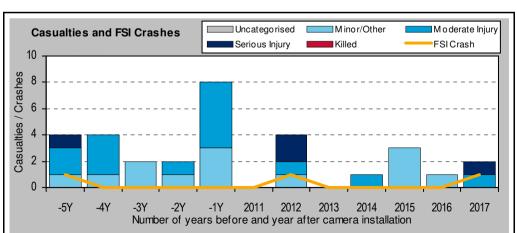
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Ryde Road and Lady Game Drive commenced issuing warning letters in December 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

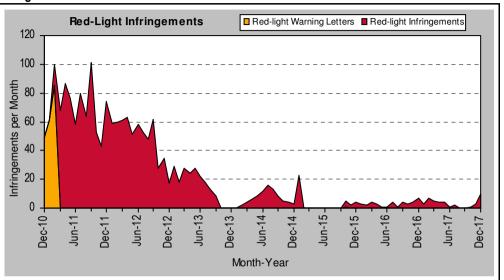
## Casualties and casualty crashes at enforced intersection

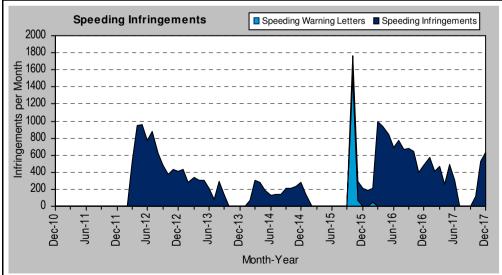
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	1	1	↓ 0%
Moderate Injuries	11	2	↓ 82%
Minor / Other Injuries	8	4	↓ 50%
Total Casualties:	20	7	↓ 65%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	1	1	↓0%
Casualty Crashes	16	6	↓ 63%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	2	0	↓ 100%
Rear End Casualty Crashes	10	6	↓ 40%

 $^1$  Ending 91 days before the start of the warning letter period, 15 September 2010  $^2$  Ending 31 December 2017



Status: Retain.





# 7245 Wiley Park - The Boulevarde at King Georges Road (school zone)

- There is one camera at this intersection.
- The camera at the intersection of The Boulevarde and King Georges Road commenced issuing warning letters in March 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

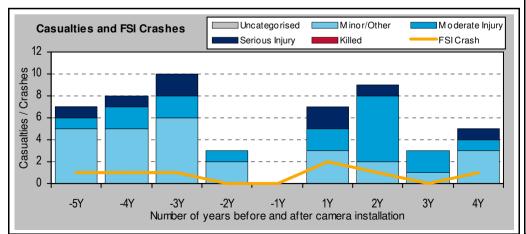
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 277 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	4	4	↑ 5%
Moderate Injuries	6	12	↑ 110%
Minor / Other Injuries	18	9	↓ 47%
Total Casualties:	28	25	↓ 6%
Pedestrian Casualties	2	3	↑ 58%
Fatal and Serious Crashes	3	4	↑ 40%
Casualty Crashes	15	19	↑ 33%
Adjacent Casualty Crashes	4	1	↓ 74%
Right Through Casualty Crashes	5	7	↑ 47%
Rear End Casualty Crashes	3	5	↑ 75%

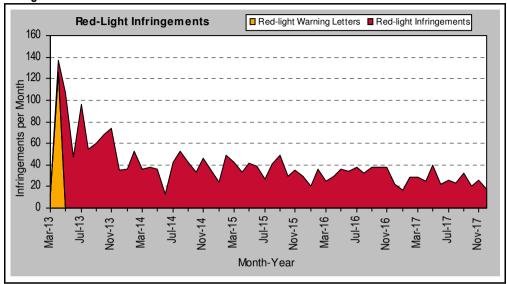
<sup>1</sup> Ending 91 days before the start of the warning letter period, 28 December 2012

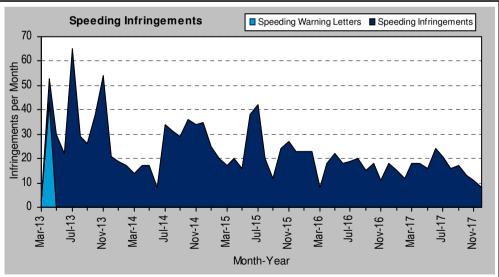
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7220 Windang - Windang Road at Boronia Avenue

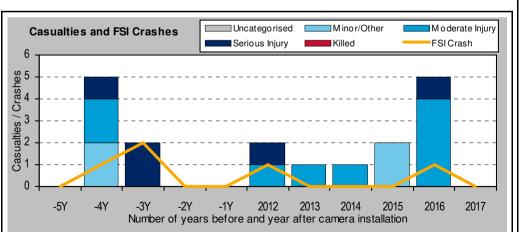
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Windang Road and Boronia Avenue commenced issuing warning letters in May 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

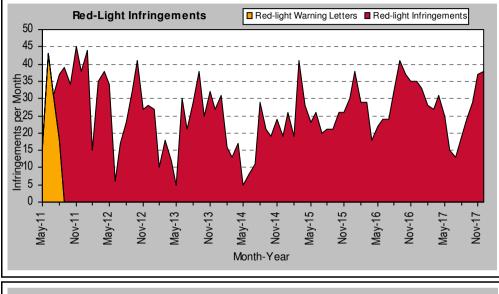
## Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	3	1	↓ 67%
Moderate Injuries	2	6	↑ 200%
Minor / Other Injuries	2	2	↓ 0%
Total Casualties:	7	9	↑ 29%
Pedestrian Casualties	3	0	↓ 100%
Fatal and Serious Crashes	3	1	↓ 67%
Casualty Crashes	5	6	↑ 20%
Adjacent Casualty Crashes	0	0	-
Right Through Casualty Crashes	1	2	↑ 100%
Rear End Casualty Crashes	0	4	Increase

 $^{\rm 1}$  Ending 91 days before the start of the warning letter period, 25 February 2011  $^{\rm 2}$  Ending 31 December 2017



Infringements at enforced intersection



#### **Speeding Infringements** Speeding Warning Letters Speeding Infringements 900 800 fug 700 Ž 600 8-500 <u>5</u> 400 nfri 200 100 0 May-15 May-12 Nov-12 May-13 Nov-13 Nov-14 Nov-15 May-16 Nov-16 May-11 May-14 May-17 Nov-17 Nov-1, Month-Year

Status: Retain.

## 7325 Windsor - Macquarie Street at Hawkesbury Valley Way

- There is one camera at this intersection.
- The camera at the intersection of Macquarie Street and Hawkesbury Valley Way commenced issuing warning letters in June 2015.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

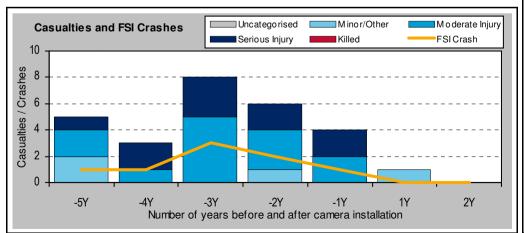
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	2 years and 185 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	10	0	↓ 100%
Moderate Injuries	13	0	↓ 100%
Minor / Other Injuries	3	1	↓ 33%
Total Casualties:	26	1	↓ 92%
Pedestrian Casualties	0	0	-
Fatal and Serious Crashes	8	0	↓ 100%
Casualty Crashes	18	1	↓ 89%
Adjacent Casualty Crashes	3	0	↓ 100%
Right Through Casualty Crashes	10	1	↓ 80%
Rear End Casualty Crashes	1	0	↓ 100%

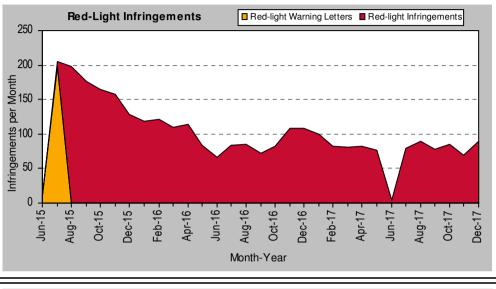
<sup>1</sup> Ending 91 days before the start of the warning letter period, 31 March 2015

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





## 7218 Wollongong - Corrimal Street at Burelli Street

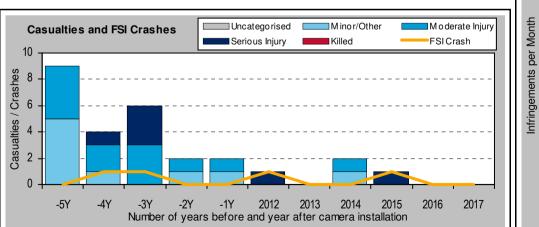
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Corrimal Street and Burelli Street commenced issuing warning letters in April 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

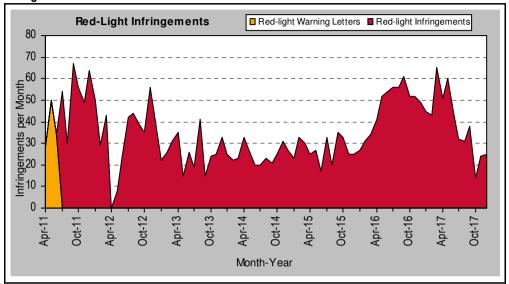
## Casualties and casualty crashes at enforced intersection

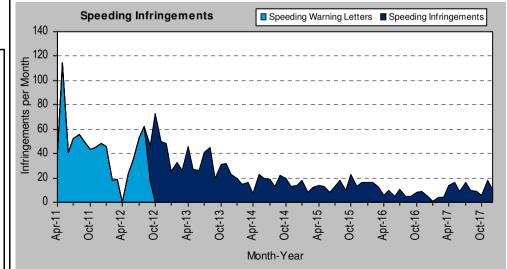
	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	1	↓ 75%
Moderate Injuries	11	1	↓ 91%
Minor / Other Injuries	8	1	↓ 88%
Total Casualties:	23	3	↓ 87%
Pedestrian Casualties	2	0	↓ 100%
Fatal and Serious Crashes	2	1	↓ 50%
Casualty Crashes	12	3	↓ 75%
Adjacent Casualty Crashes	3	1	↓ 67%
Right Through Casualty Crashes	7	1	↓ 86%
Rear End Casualty Crashes	1	0	↓ 100%

 $^1$  Ending 91 days before the start of the warning letter period, 18 January 2011  $^2$  Ending 31 December 2017



Status: Retain.





#### 7216 Wollongong - Gladstone Avenue at Princes Highway

- There is one camera at this intersection.
- The camera at the intersection of Gladstone Avenue and Princes Highway commenced issuing warning letters in June 2011.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

0

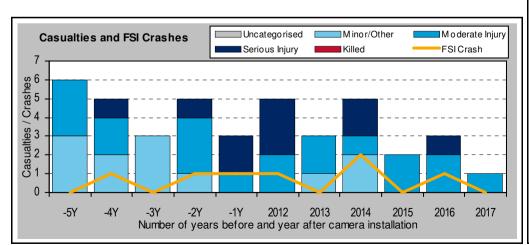
Jun-11.

Dec-11

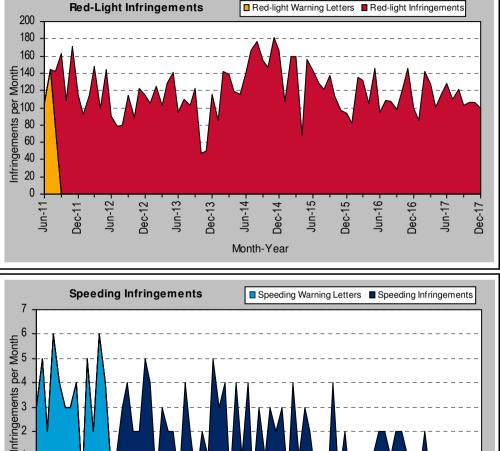
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	4	3	↓ 25%
Moderate Injuries	9	8	↓ 11%
Minor / Other Injuries	9	3	↓ 67%
Total Casualties:	22	14	↓ 36%
Pedestrian Casualties	3	2	↓ 33%
Fatal and Serious Crashes	3	3	↓0%
Casualty Crashes	19	13	↓ 32%
Adjacent Casualty Crashes	3	3	↓ 0%
Right Through Casualty Crashes	11	2	↓ 82%
Rear End Casualty Crashes	0	4	Increase

 $^{1}$  Ending 91 days before the start of the warning letter period, 15 March 2011  $^{2}$  Ending 31 December 2017



Infringements at enforced intersection



Jun-14 -

Dec-13.

Jun-15 -

Dec-14

Month-Year

Jun-16 -

Dec-16 .

Jun-17

Dec-15.

Jun-13 -

Dec-12

Jun-12 -

Status: Retain.

Dec-17

#### 7288 Woollahra - Queen Street at Ocean Street

- There is one camera at this intersection.
- The camera at the intersection of Queen Street and Ocean Street commenced issuing warning letters in October 2013.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

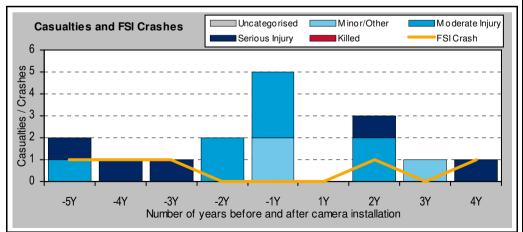
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	4 years and 74 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	3	2	↓ 21%
Moderate Injuries	6	2	↓ 60%
Minor / Other Injuries	2	1	↓ 41%
Total Casualties:	11	5	↓ 46%
Pedestrian Casualties	0	3	Increase
Fatal and Serious Crashes	3	2	↓ 21%
Casualty Crashes	10	5	↓ 41%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	3	1	↓ 60%
Rear End Casualty Crashes	1	0	↓ 100%

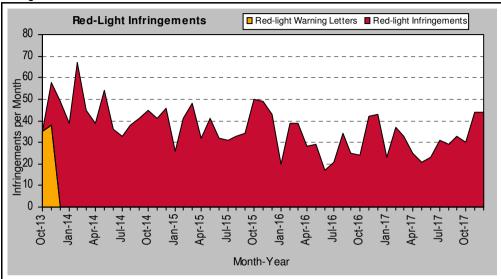
<sup>1</sup> Ending 91 days before the start of the warning letter period, 19 July 2013

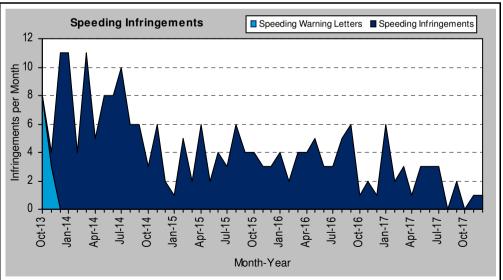
<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7294 Yagoona - Rookwood Road at Brunker Road

- There is one camera at this intersection.
- The camera at the intersection of Rookwood Road and Brunker Road commenced issuing warning letters in July 2014.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

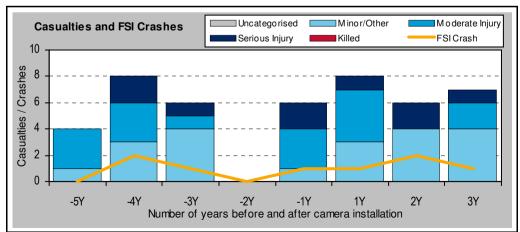
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	3 years and 159 days after installation <sup>2</sup>	Percentage change <sup>3</sup>
Fatalities	0	0	-
Serious Injuries	5	5	↑ 45%
Moderate Injuries	10	7	↑ 2%
Minor / Other Injuries	9	11	↑ 78%
Total Casualties:	24	23	↑ 39%
Pedestrian Casualties	0	1	Increase
Fatal and Serious Crashes	4	5	↑ 82%
Casualty Crashes	18	17	↑ 37%
Adjacent Casualty Crashes	9	5	↓ 19%
Right Through Casualty Crashes	6	1	↓ 76%
Rear End Casualty Crashes	0	8	Increase

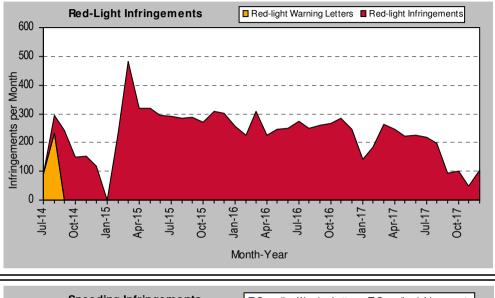
<sup>1</sup> Ending 91 days before the start of the warning letter period, 25 April 2014

<sup>2</sup> Ending 31 December 2017

<sup>3</sup> The percentage change is based on annualised crash data to allow for a direct comparison between the pre and post installation time periods. Red values indicate an increase.



Infringements at enforced intersection





Status: Insufficient data (<5 years) to reliably assess.

#### 7106 Zetland - Bourke Street at Botany Road

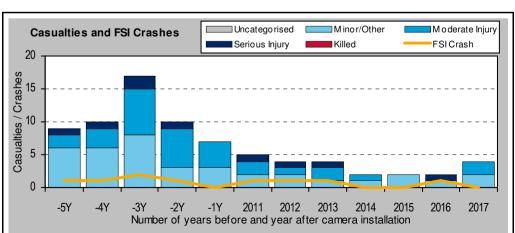
- There is one camera at this intersection. This was previously a wet-film red-light camera location.
- The camera at the intersection of Bourke Street and Botany Road commenced issuing warning letters in June 2010.

• The infringement graphs show the number of warning letters and infringements issued at this intersection as well as the trend in infringements since the camera began operation. Roadworks and camera maintenance may influence the number of infringements issued.

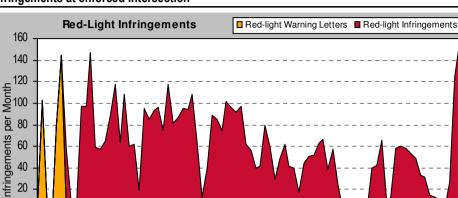
#### Casualties and casualty crashes at enforced intersection

	5 years before installation <sup>1</sup>	5 year after period²	Percentage change
Fatalities	0	0	-
Serious Injuries	5	2	↓ 60%
Moderate Injuries	22	5	↓ 77%
Minor / Other Injuries	26	7	↓ 73%
Total Casualties:	53	14	↓ 74%
Pedestrian Casualties	3	0	↓ 100%
Fatal and Serious Crashes	5	2	↓ 60%
Casualty Crashes	38	11	↓71%
Adjacent Casualty Crashes	6	0	↓ 100%
Right Through Casualty Crashes	10	6	↓ 40%
Rear End Casualty Crashes	7	2	↓ 71%

<sup>1</sup> Ending 91 days before the start of the warning letter period, 31 March 2010 <sup>2</sup> Ending 31 December 2017



Status: Retain.



Jun-13 -

Dec-13

Month-Year

Jun-14

Dec-14

Dec-12

Jun-12.

Jun-15 -

Jun-16 -

Dec-16

Jun-17.

Dec-17

Dec-15

#### Infringements at enforced intersection

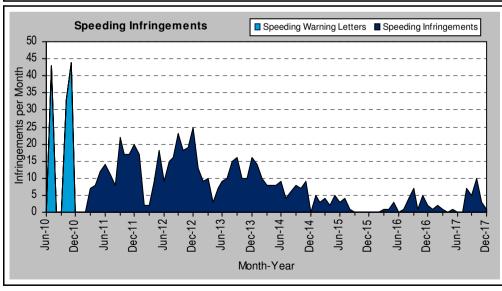
40 20 0

Jun-10.

Dec-10

Jun-11

Dec-11



# **B. NSW red-light speed cameras**

# **B.3** Red-light speed camera locations with the most infringements

In 2013, NRMA Motoring & Services called for an assessment of all high infringing speed camera locations across the state to determine whether the cameras were appropriately placed and clearly signposted.

The 10 red-light speed camera locations with the highest number of infringements for the 2017 calendar year are detailed in the table overleaf, and discussed below.

#### B.3.1 Total infringements

All of the 10 red-light speed camera locations with the most infringements are on roads with significant traffic volumes.

5 years of 'after' data is available for only three of the ten locations.

- 8. Darlinghurst Craigend Street at McLachlan Avenue (commenced Aug 2010)
- 9. Granville Woodville Road at M4 Westbound on-ramp (*commenced Sept 2010*)
- 10. Pennant Hills Pennant Hills Road at Beecroft Road (commenced Sept 2010)

All three cameras will be retained based on the analysis included at pages B53, B72 and B126. The majority of infringements are issued for speeding offences at each of these locations.

#### B.3.2 Composition of speed and red-light infringements

Across the red-light speed camera program:

- Approximately 59 per cent of infringements at red-light speed camera locations are attributed to running a red light, and
- Approximately 41 per cent of infringements at red-light speed camera locations are attributed to speeding.

For the 10 highest infringing camera locations, the division between the two types of infringements is site-dependent, with six of the locations having a higher proportion of speed infringements and four having a higher proportion of red-light infringements.

## B.3.3 Compliance rate

The compliance rate shown in the table overleaf compares the number of vehicles that pass a camera with the number of infringements issued by the camera.

All camera locations had high compliance rates with more than 99 per cent of drivers passing the cameras without being infringed for red-light running and/or speeding. This demonstrates that most drivers stop on a red signal and do not exceed the speed limit, with less than one per cent of drivers penalised. It is this high level of compliance that provides road safety benefits.

	Location (commencement date)	Number of cameras	Infringements (Total: 2016)	Infringements (Total: 2017)	% of red light and speed infringements (2017)	Compliance rate <i>(2017)</i>
1	Sydney - Elizabeth Street at Park Street (September 2014)	1	11,427	14,290	72.86% speed 27.14% red-light	99.80%
2	Haymarket - George Street at Pitt Street / Quay Street (June 2013)	2	6,664	11,598	22.36% speed 77.64% red-light	99.64%
3	Darlinghurst - Oxford Street at Crown Street (September 2014)	2	12,400	8,887	70.29% speed 29.71% red-light	99.87%
4	North Ryde - Cox's Road at Lane Cove Road (school zone) (April 2013)	3	7,168	7,676	73.88% speed 26.12% red-light	99.90%
5	Bankstown - Stacey Street at Hume Highway (April 2013)	1	5,165	7,633	3.03% speed 96.97% red-light	99.91%
6	Darlinghurst - William Street at Crown Street (October 2014)	1	7,112	5,400	85.11% speed 14.89% red-light	99.92%
7	Neutral Bay - Falcon Street at Merlin Street (July 2014)	1	6,874	5,234	15.28% speed 84.72% red-light	99.96%
8	Darlinghurst - Craigend Street at McLachlan Avenue (August 2010)	1	6,022	5,222	69.13% speed 30.87% red-light	99.96%
9	Granville - Woodville Road at M4 Westbound on-ramp (September 2010)	1	4,981	4,954	7.23% speed 92.77% red-light	99.91%
10	Pennant Hills - Pennant Hills Road at Beecroft Road (school zone) (September 2010)	1	4,878	4,881	95.02% speed 4.98% red-light	99.96%

## Red-light speed camera locations with the most infringements

# C. NSW mobile speed cameras

# C.1 The NSW Mobile Speed Camera Program

Mobile speed cameras work like fixed speed cameras, but are moved in vehicles from location to location. 7,000 hours of mobile speed enforcement are delivered per month, at 1,024 locations across NSW.

Mobile speed cameras are effective because they are unpredictable. Their operation creates a general deterrence against speeding and crash reduction across the whole network – not just at camera locations.

	NSW Mobile Speed Camera Program											
Year	Number of vehicles	Number of locations	Number of hours/month	Policy								
2010-11	6	142	930	Bi-directional enforcement								
2012-16	45	640 (by mid 2012)	7,000 (by mid-2014)	Enhanced visibility (vehicles & signage), single direction								
2017	45	1,024	7,000	enforced								

The NSW Mobile speed camera program has operated as follows since 2010:

# C.2 Initial impact of the reintroduction of the program

The reintroduction of the mobile speed camera program resulted in an immediate reduction in the NSW road toll. 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 reintroduction 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 446 fatalities in NSW, whereas in the year after mobile speed cameras (19 July 2010 – 18 July 2011) there were 357 fatalities. This represents a saving of 89 lives and an estimated community saving of around \$575 million (based on willingness-to-pay methodology 2011).

# C.3 Impact on the NSW Road toll in recent years

The ongoing impact of the mobile speed camera program has also impacted the road toll in recent years.

## C.3.1.1 NSW road fatalities

There were 389 fatlities on NSW roads in 2017. While this was an increase on the 2016 figure (380), it remains significantly below the 2009 figure of 453.

## C.3.1.2 NSW fatality rate per 100,000 population

The NSW fatality rate per 100,000 population was 4.9 in 2017.

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

This was the same as the 2016 rate, and remains significantly below the 2009 figure of 6.42.

## C.3.1.3 Speed related fatalities and serious injuries

There were 167 fatalities from excessive speed in 2017. This represents a 19 per cent reduction on 2009 figures (before the mobile speed camera program was reintroduced in NSW).

There were 1,449 serious injuries from speed related crashes in 2017. This represents a 2 per cent decrease on 2009 figures:

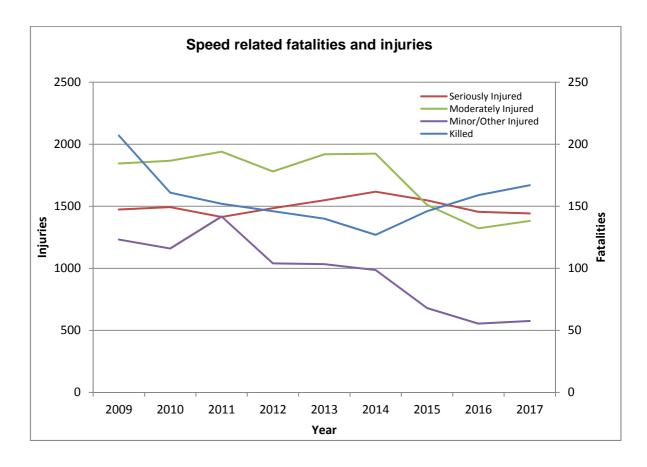


Figure C1: Speed-related fatalities and injuries, 2009-2017

Speed related fatalities and serious injuries have also fallen more than all fatalities and serious injuries, across NSW, for the same period:

	2009	2017	% Change
NSW excessive speed fatalities	207	167	-19%
NSW total fatalities	453	389	-14%
NSW speed-related serious injuries	1,474	1449	-2%
NSW total matched serious injuries	6,213	6,179	-1%

# C.4 Annual speed survey

Data from the annual speed survey are presented overleaf, along with comparison data from 2009-2016.

Results are presented separately for light and heavy vehicles, and show:

- 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.

Vehicle speeds are assessed state-wide through annual speed surveys undertaken by the 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 vehicles and heavy vehicles.

In 2017 annual speed surveys were conducted at 175 locations across NSW. They were not undertaken at specific speed camera enforcement locations. 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.

Table C1: Mean speed and 85th percentile speed survey results, 2009-2017

## Light vehicles:

Postod speed limit		Mean speeds (km/h)									85th percentile speeds (km/h)							
Posted speed limit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2009	2010	2011	2012	2013	2014	2015	2016	2017
40 km/h school zone	45.1	43.6	44.2	43.3	43.2	42.5	43.0	42.4	42.3	52.7	50.9	51.4	50.2	50.2	48.9	49.7	48.8	48.7
40 km/h	38.9	38.4	38.3	39.3	38.1	38.1	38.0	37.9	37.8	44.6	44.0	43.8	44.7	43.5	43.5	43.3	43.3	43.1
50 km/h	53.6	52.1	52.3	51.4	51.9	51.4	51.0	51.3	50.4	61.1	59.1	59.4	58.5	58.6	58.1	57.6	57.8	56.9
60km/h	58.7	57.7	57.4	58.1	57.1	56.5	55.9	55.9	55.5	65.6	64.2	64.3	65	63.8	63.1	62.6	62.6	62.1
70 km/h	69.6	67.9	67.8	67.6	67.9	67.8	67.6	67.9	66.6	77.8	75.8	75.6	75.3	75.6	75.2	75.1	75.5	74.2
80 km/h	77.8	76.1	76.4	77.2	75.4	74.3	74.0	74.2	73.8	85.9	84.5	86.4	85	83.3	82	81.6	81.9	81.3
90 km/h – small sample ^	88.1	91.1	90.9	86.5	86.9	86.3	87.2	85.3	84.8	96.7	99.0	99.2	95.2	95	93.9	95	93.5	92.7
100 km/h	98.8	98.6	99.1	98.4	97.2	98.1	98.3	98.3	98.0	106.5	106.2	106.7	106	104.7	105.2	105.5	105.4	105.4
110 km/h	109.9	108.8	109.2	109.8	107.9	108.3	108.6	107.8	107.7	118.0	116.6	116.7	117.2	115.6	115.3	115.8	115	114.7

#### Heavy vehicles:

Dected speed limit				Mean	speeds (	km/h)				85th percentile speeds (km/h)								
Posted speed limit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2009	2010	2011	2012	2013	2014	2015	2016	2017
40 km/h school zone	41.9	41.2	42.4	40.8	41.0	40.6	41.2	40.8	40.6	48.3	47.1	49.2	46.4	46.5	45.8	46.8	46.1	45.4
40 km/h	38.6	37.7	37.3	39.1	37.3	37.5	37.4	37.4	37.3	44.2	42.7	42.4	44.9	42.5	42.1	42.7	42.5	42.4
50 km/h	53.2	51.8	51.2	50.3	50.2	50.5	50.2	50.7	50.2	60.3	58.6	58.1	57.2	56.5	56.8	56.2	57.6	56.6
60km/h	56.4	56.2	55.8	57.2	55.3	54.9	54.4	54.0	53.8	63.6	63.2	63.0	65.0	62.6	62.0	61.5	61.4	61.0
70 km/h	66.1	65.4	64.9	64.2	65.0	64.9	63.8	65.0	63.2	75.5	74.4	73.4	72.9	73.6	73.8	72.8	73.0	72.1
80 km/h	76.3	72	72.9	75.5	71.9	74.4	70.8	71.8	70.8	89.6	81.6	81.9	83.9	80.8	84.4	79.6	80.7	79.8
90 km/h – small sample ^	85.0	91.1	90.0	85.6	86.6	84.7	87.3	84.3	83.7	94.5	99.4	98.9	95.5	95.0	93.1	95.8	92.8	92.0
100 km/h	97.4	98.0	98.0	97.6	95.9	97.4	97.2	97.4	97.1	103.5	104.4	104.4	104.0	102.1	102.9	103.2	103.5	102.8
110 km/h	100.7	101.8	100.6	101.8	99.0	101.9	99.7	100.0	99.8	106.4	109.0	106.8	107.4	105.1	108.9	106.2	105.4	105.7

^ Small samples may result in greater fluctuations year to year.

#### Table C2: Percentage of vehicles exceeding the speed limit speed survey results, 2009-2017

Light vehicles:

Posted			Exceedin	g the spe	ed limit by	y up to 10	km/h (%)			Exceeding the speed limit by 10 km/h or more (%)								
speed limit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2009	2010	2011	2012	2013	2014	2015	2016	2017
40 km/h school zone	46.4%	44.0%	45.1%	44.0%	43.4%	45.0%	45.8%	44.3%	43.5%	23.0%	17.5%	19.7%	16.4%	17.0%	12.3%	13.6%	12.3%	12.0%
40 km/h	30.2%	27.8%	27.2%	32.6%	26.6%	26.8%	25.7%	25.5%	24.9%	4.5%	3.4%	3.7%	5.4%	3.4%	3.0%	3.0%	2.7%	2.4%
50 km/h	48.8%	46.4%	46.6%	44.9%	43.3%	45.3%	41.7%	41.0%	39.7%	16.8%	12.6%	13.2%	11.8%	14.1%	9.7%	9.8%	12.4%	8.5%
60km/h	32.3%	28.8%	28.2%	30.9%	25.9%	24.9%	22.9%	22.6%	21.1%	7.3%	5.4%	5.8%	6.7%	6.3%	3.9%	3.9%	3.7%	3.5%
70 km/h	35.9%	31.3%	30.2%	29.3%	29.5%	29.9%	28.6%	29.2%	25.4%	10.4%	6.6%	6.3%	6.2%	8.2%	6.4%	6.1%	7.3%	5.8%
80 km/h	29.8%	26.3%	26.1%	26.0%	21.1%	18.6%	18.0%	18.6%	17.5%	8.8%	6.3%	6.6%	5.9%	6.2%	4.9%	3.8%	4.1%	4.0%
90 km/h – small sample ^	29.6%	38.0%	38.5%	26.4%	24.8%	24.5%	25.8%	21.9%	21.3%	9.0%	11.8%	13.4%	8.7%	10.1%	6.7%	8.8%	5.9%	6.8%
100 km/h	34.5%	32.2%	34.4%	32.6%	27.6%	31.1%	32.3%	32.3%	30.5%	8.2%	9.0%	8.9%	7.8%	7.9%	6.7%	7.6%	6.9%	8.1%
110 km/h*	40.8%	37.5%	38.9%	42.5%	33.9%	34.1%	36.1%	31.8%	32.2%	9.3%	6.4%	7.0%	10.1%	6.0%	5.4%	5.9%	5.0%	5.3%

#### Heavy vehicles:

Posted speed			Exceedin	g the spe	ed limit by	y up to 10	) km/h (%)	)		Exceeding the speed limit by 10 km/h or more (%)								
limit	2009 2010 2011 2012 2013 2014 2015 2016 2017 20					2009	2010	2011	2012	2013	2014	2015	2016	2017				
40 km/h school zone	42.2%	36.2%	43.3%	40.3%	39.7%	39.9%	44.0%	40.7%	39.8%	10.1%	10.2%	12.6%	7.3%	2.6%	3.9%	6.8%	6.4%	5.8%
40 km/h	26.6%	22.8%	21.0%	30.9%	21.0%	22.3%	21.5%	20.8%	20.6%	5.4%	3.6%	3.0%	5.2%	7.1%	2.8%	2.8%	3.0%	2.4%
50 km/h	45.6%	44.7%	42.5%	42.9%	38.3%	41.8%	40.6%	38.0%	37.2%	16.7%	12.5%	10.7%	9.4%	7.8%	7.5%	6.9%	10.6%	8.4%
60km/h	26.7%	25.8%	25.4%	27.3%	22.7%	21.3%	19.9%	18.6%	17.8%	5.0%	3.9%	4.5%	7.4%	4.1%	3.2%	3.3%	2.8%	2.9%
70 km/h	28.6%	27.3%	23.7%	21.8%	24.1%	25.1%	21.0%	22.0%	19.1%	5.7%	4.2%	3.5%	3.2%	3.9%	4.2%	3.2%	4.6%	3.3%
80 km/h	23.6%	21.2%	23.2%	20.8%	18.2%	17.1%	15.7%	17.6%	15.6%	9.8%	5.1%	5.9%	4.8%	4.0%	13.1%	3.0%	3.8%	3.8%
90 km/h – small sample ^	27.2%	41.3%	34.8%	30.7%	30.6%	23.5%	31.2%	24.1%	23.6%	6.3%	14.0%	13.6%	9.3%	8.5%	4.8%	9.3%	5.4%	5.1%
100 km/h	34.5%	34.1%	34.0%	34.3%	26.2%	32.1%	29.7%	29.6%	29.2%	3.2%	4.8%	4.8%	4.9%	2.2%	2.7%	3.2%	3.7%	3.8%
110 km/h*	48.1%	39.8%	44.9%	46.4%	44.0%	40.0%	36.5%	31.9%	31.8%	8.1%	12.9%	8.8%	10.3%	6.7%	11.7%	8.7%	7.6%	8.5%

^ Small samples may result in greater fluctuations year to year.
 \* Note HV Speed Limit is 100 km/h and results presented indicate the percentage of HVs exceeding 100km/h in this section.

## C.4.1.1 Results for default urban and rural speed zones

## **Light vehicles**

In 2017, light vehicle speed survey results indicate:

- 50km/h speed zones
  - 39.7 per cent of drivers were travelling up to 10km/h above the posted speed limit, and a further 8.5 per cent were exceeding the speed limit by 10km/h or more.
  - $\circ~$  The 85th percentile speed was 56.9 km/h, the mean speed was 50.4 km/h.
- 100km/h speed zones
  - 30.5 per cent of drivers were travelling up to 10km/h above the posted speed limit, and a further 8.1 per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 105.4 km/h, the mean speed was 98.0 km/h.

#### Heavy vehicles

In 2017, heavy vehicle speed survey results indicate:

- 50km/h speed zones
  - 37.2 per cent of drivers were travelling up to 10km/h above the posted speed limit, and a further 8.4 per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 56.6 km/h, the mean speed was 50.2 km/h.
- 100km/h speed zones
  - 29.2 per cent of drivers were travelling up to 10km/h above the posted speed limit, and a further 3.8 per cent were exceeding the speed limit by 10km/h or more.
  - The 85th percentile speed was 102.8 km/h, the mean speed was 97.1 km/h.

#### C.4.1.2 Trends in speed survey results

#### Light vehicles

Over the last nine years the general trend has been an increase in the proportion of light vehicles complying with the speed limit across all speed zones. This can be seen in Figure A2 (presented overleaf), along with:

- A significant increase in compliance in 2010, coinciding with the introduction of mobile speed cameras,
- 80km/h zones have had the highest rate of compliance since 2012, with almost 80 per cent of drivers driving within the speed limit.
- 40km/h school zones continue to have the lowest rate of compliance, with only approximately 40 per cent of drivers driving within the speed limit.

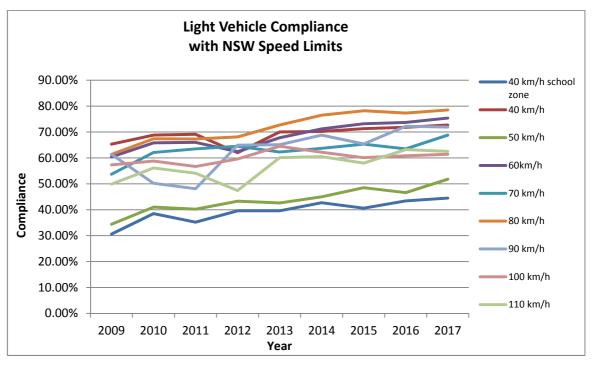


Figure C2: Annual speed survey results, light vehicle compliance rate (percentage of vehicles travelling within the speed limit) by speed zone

The speed survey results show that there has been a decrease in the proportion of light vehicles exceeding the speed limit over the last nine years, for most speed zones. When comparing the 2017 results against the 2016 results there has been a decrease in the percentage of light vehicles exceeding the speed limit by up to 10km/h in all speed zones except for in the 110km/h zone. The percentage of vehicles exceeding the speed limit by 10km/h or more has decreased in all speed zones except in the 90km/h, 100km/h and 110km/h.

#### **Heavy Vehicles**

The speed survey results also indicate that there is a reduced proportion of heavy vehicles exceeding the speed limit over the last nine years; but while this is true for most speed zones, it is not the case for exceeding the speed limit by 10km/h or more in 100km/h and 110km/h zones.

Comparing the 2017 results against the 2016 results, there is an increased proportion of heavy vehicles exceeding the speed limit (up to 10km/h, and 10km/h or more), for approximately 15 per cent of the speed zones measured.

# C.5 Mobile speed camera infringements

In 2017 there were a total of 21,347 infringements issued from mobile speed camera enforcement resulting in \$4.6 million of fines. The cost of conducting the mobile speed camera program for the 2017 financial year was \$22.8 million.

The total number of mobile speed camera infringements issued in 2017 decreased by 27 per cent compared to 2016.

The below graph shows the mobile speed camera program infringement data and the number of enforcement hours per month. The graph shows that there was a marked decrease in the number of infringements issued from the end of June 2014 onwards. At that time, the number of enforcement hours reached 7,000 per month, and have

not increased over and above that point. It can be seen that the number of monthly infringements has decreased since that time, as motorists have changed their behaviour at the locations where mobile speed cameras enforce.

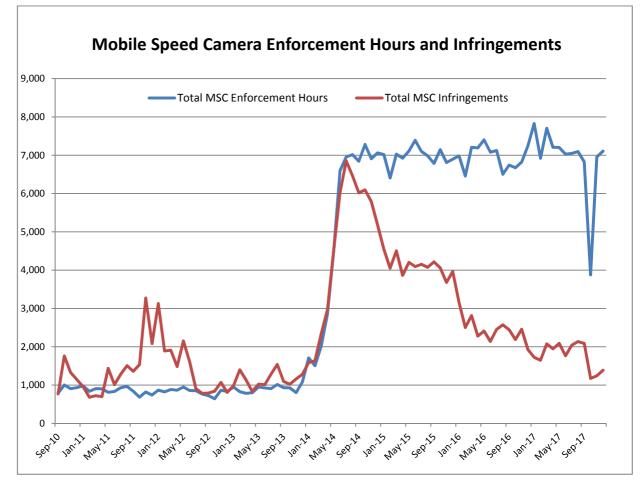


Figure C3: Speeding infringements issued and number of enforcement hours conducted by mobile speed cameras by month

The above graph depicts some peaks in infringement numbers when new sites are in use more frequently. 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 remain in the same place and continually enforce meaning that reductions in infringements are more consistent.

The reduction in infringements from the start of 2012 can be attributed to the enhanced visibility of mobile speed camera vehicles as well as additional signage being placed before a mobile speed camera to ensure drivers see and recognised the enforcement activity. At the same time, mobile speed cameras also switched from enforcing in both directions to single direction enforcement, further contributing to the lower volume of infringements.

# C.6 Compliance at all mobile speed camera locations

Figure C4 below shows the compliance rate of vehicles at mobile speed camera locations. Compliance data compares the number of vehicles that pass a camera with the number of fines detected by the camera. As can be seen below, over 99 per cent

of vehicles passing mobile cameras are not infringed for speeding. In 2017 the compliance rate was 99.9%. This high rate of compliance has remained consistent since 2010 when the program was reintroduced.

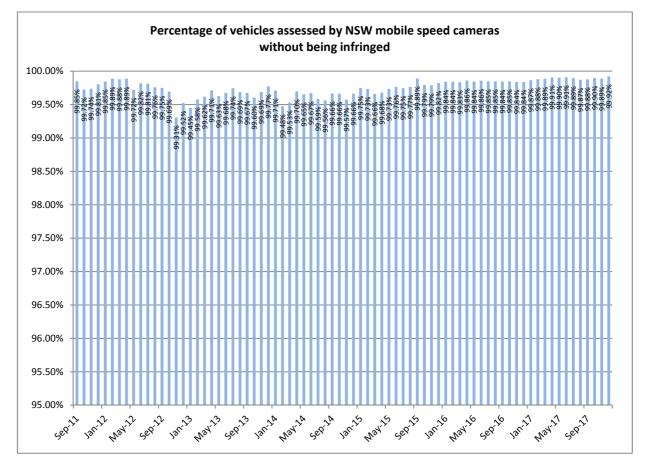


Figure C4: Compliance rate of vehicles at mobile speed camera locations

# C.7 Supporting initiatives

CRS has developed and implemented a speed camera public education campaign that has supported the rollout of the mobile speed camera program.

Evidence shows that enforcement and strong public education campaigns change driver behaviour and help prevent speed-related crashes and trauma through awareness of enforcement.

# C.8 Summary

Overall, the trend in road fatalities, infringements and annual speed survey data demonstrates that the mobile speed camera program has delivered road safety benefits over the years since the program was re-introduced in 2010.

# D. NSW heavy vehicle average speed cameras

# D.1 The NSW heavy vehicle average speed camera program

As at 31 December 2017, there were 25 average speed average speed enforcement lengths across NSW. The median commencement date for NSW average speed enforcement lengths was 16 December 2011.

The program addresses heavy vehicle speeding along travel routes with a demonstrated history of heavy vehicle crashes and/or speeding. The program targets heavy vehicles because they are over-represented in crashes on known heavy vehicle routes and when they are involved in accidents they tend to be more serious due to their size and weight.

Average speed camera enforcement works by measuring the amount of time it takes a heavy vehicle to travel between two points and then calculating the 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.

## D.2 NSW heavy vehicle average speed enforcement lengths

	Road	Section	Approximate Length (km)
1	Pacific Highway	Between Harwood and New Italy	35
2	Great Western Highway	Between Meadow Flat and Raglan	26
3	Federal Highway	Between Goulburn and Collector	20
4	Pacific Highway	Between Woodburn and Wardell	18
5	Pacific Highway	Between Nabiac and Taree	17
6	Mitchell Highway	Between Molong and Cundumbul	28
7	Hume Highway	Between Coolac and Yass	72
8	Hume Highway	Between Gundagai and Coolac	16
9	Monaro Highway	Between Bredbo and Cooma	28
10	Gwydir Highway	Between Glen Innes and Inverell	57
11	Pacific Highway	Between Port Macquarie and Kempsey	36
12	Oxley Highway	Between Gunedah and Tamworth	60
13	New England Highway	Between Muswellbrook and Aberdeen	7
14	Newell Highway	Between Peak Hill and Tomingley	10
15	Newell Highway	Between Eumungerie and Gilgandra	30
16	New England Highway	Between Muswellbrook and Singleton	36
17	Pacific Highway	Between Kew and Port Macquarie	15
18	Pacific Highway	Between Urunga and Valla	13
19	Picton Road	Between Wilton and Cataract	17
20	Golden Highway	Between Sandy Hollow to Merriwa	28
21	Newell Highway	Between Forbes and West Wyalong	94
22	Pacific Highway	Between Ballina and Wardell	16
23	Pacific Highway	Between Tyndale and Harwood	21
24	Mount Ousley Road	Between Bulli and Gwynneville	15
25	Great Western Highway	Between Mount Victoria and Lithgow	15

NSW Speed Camera Programs Annual Review 2018 - Appendix D: Heavy vehicle average speed cameras

# D.3 Enforcement periods

These lengths were installed as follows:

Year	Lengths installed								
2010	2								
2011	14	(5 years of crash data is available for these lengths)							
2012	4								
2013	1								
2014	3								
2015	1	(Less than 5 years of crash data is available for the lengths)							
2016	0								
2017	0								
Total:	25								

Crash and infringement data for the average speed camera program are presented in Table D1 overleaf.

## D.4 Crash Data

Overall, there has been a reduction in fatal crashes and casualty crashes involving a heavy vehicle on NSW average speed enforcement lengths since those lengths were installed, compared with the five year period prior to installation.

Across heavy vehicle average speed camera lengths, there has been a:

- 22 per cent reduction in casualty crashes involving a heavy vehicle
- 44 per cent reduction in fatalities from crashes involving heavy vehicles
- 4 per cent reduction in serious injuries from crashes involving heavy vehicles.

The reduction in fatalitites and serious injuries represents a saving of \$138 million to the community.

The trauma reductions at camera locations compare to the following rates of change observed across NSW over the same period for crashes involving heavy vehicles:

- 10 per cent reduction in casualty crashes involving a heavy vehicle
- 19 per cent reduction in fatalities from crashes involving heavy vehicles
- 10 per cent increase in serious injuries from crashes involving heavy vehicles.

It should also be noted, alongside the crash data discussed above, that there has been a notable increase in heavy vehicle traffic volumes. Over the periods that average speed enforcement lengths have been reviewed within this report, there has been a 11 per cent increase in heavy vehicle volume across NSW.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

NSW Speed Camera Programs Annual Review 2018 - Appendix D: Heavy vehicle average speed cameras

# Table D1: Crashes and infringements at heavy vehicle average speed enforcement locations

		Crash data Pre installation <i>(5 years data)</i>		tion	Crash data After installation <i>(5 years /</i> <i>up to 31 Dec 2017)</i>			Heavy Vehicle Infringements (annual totals)					
Road	Average Speed Enforcement Length	Fatalities from crashes involving heavy vehicles	Serious injuries from crashes involving heavy vehicles	Casualty crashes involving heavy vehicles	Fatalities from crashes involving heavy vehicles	Serious injuries from crashes involving heavy vehicles	Casualty crashes involving heavy vehicles	2012	2013	2014	2015	2016	2017
Pacific Highway	01. Between Harwood and New Italy (Commencement date: 31 Mar 2010) (Approximate length: 35 km)	4	9	18	1	8	10	11	136	1	9	13	14
Great Western Highway	02. Between Meadow Flat and Raglan (Commencement date: 31 May 2010) (Approximate length: 26 km)	2	2	11	0	3	4	12	3	0	0	1	6
Federal Highway	03. Between Goulburn and Collector (Commencement date: 30 May 2011) (Approximate length: 20 km)	0	1	2	0	0	3	120	121	114	99	98	174
Pacific Highway	04. Between Woodburn and Wardell (Commencement date: 28 Jun 2011) (Approximate length: 18 km)	4	9	17	3	8	11	49	62	38	11	14	49
Pacific Highway	05. Between Nabiac and Taree (Commencement date: 5 Aug 2011) (Approximate length: 17 km)	1	4	8	0	3	9	45	169	148	99	104	124
Mitchell Highway	Commencement date: 5 Aug 2011)     (Approximate length: 28 km)	0	4	3	0	3	4	0	3	20	10	5	7
Hume Highway	Commencement date: 26 Aug 2011)     (Approximate length: 72 km)	2	3	17	2	11	19	255	130	122	96	104	139
Hume Highway	08. Between Gundaga and Coolac (Commencement date: 26 Aug 2011) (Approximate length: 16 km)	1	6	7	1	1	4	264	214	134	57	123	114
Monaro Highway	09. Between Bredbo and Cooma (Commencement date: 17 Sep 2011) (Approximate length: 28 km)	1	0	1	0	0	2	5	9	3	4	1	2
Gwydir Highway	10. Between Glen Innes and Inverell (Commencement date: 25 Oct 2011) (Approximate length: 57 km)	0	0	2	0	0	0	4	1	2	1	2	0
Pacific Highway	11. Between Port Macquarie and Kempsey (Commencement date: 14 Dec 2011) (Approximate length: 36 km)	0	7	12	4	24	26	1	0	0	249	257	0
Oxley Highway	12. Between Gunedah and Tamworth (Commencement date: 30 Nov 2011) (Approximate length: 60 km)	1	0	4	0	1	2	4	8	9	11	11	3
New England Highway	13. Between Muswellbrook and Aberdeen (Commencement date: 16 Dec 2011) (Approximate length: 7 km)	0	3	4	0	3	3	1	2	2	4	0	1
Newell Highway	14. Between Peak Hill and Tomingley (Commencement date: 22 Dec 2011) (Approximate length: 10 km)	2	2	2	0	0	0	21	28	22	27	87	25
Newell Highway	15. Between Eumungerie and Gilgandra (Commencement date: 22 Dec 2011) (Approximate length: 30 km)	2	2	6	0	0	0	72	28	22	80	78	54
New England Highway	16. Between Muswellbrook and Singleton (Commencement date: 20 Dec 2011) (Approximate length: 36 km)	2	2	9	1	4	6	3	3	2	1	3	2
Pacific Highway	17. Between Kew and Port Macquarie (Commencement date: 17 Aug 2012) (Approximate length: 15 km)	1	9	14	3	3	8	0	199	402	527	366	245
Pacific Highway	18. Between Urunga and Valla (Commencement date: 29 Sep 2012) (Approximate length: 13 km)	4	7	10	1	0	4	0	79	73	30	72	0
Picton Road	<b>19. Between Wilton and Cataract</b> (Commencement date: 17 Oct 2012) (Approximate length: 17 km)	8	3	7	0	1	3	0	5	1	5	1	2
Golden Highway	20. Between Sandy Hollow to Merriwa (Commencement date: 1 Mar 2012) (Approximate length: 28 km)	0	2	3	1	0	1	7	10	2	9	1	4
Newell Highway	21. Between Forbes and West Wyalong (Commencement date: 22 Mar 2013) (Approximate length: 94 km)	0	6	10	1	5	9	0	21	18	29	6	34
Pacific Highway	22. Between Ballina and Wardell (Commencement date: 5 Feb 2014) (Approximate length: 16 km)	0	4	7	0	0	1	0	0	8	2	106	32
Pacific Highway	23. Between Tyndale and Harwood (Commencement date: 5 Feb 2014) (Approximate length: 21 km)	0	4	7	3	4	7	0	0	3	7	76	6
Mount Ousley Road	24. Between Bulli and Gwynneville (Commencement date: 28 Jan 2014) (Approximate length: 15 km)	0	12	24	0	14	24	0	0	401	654	464	488
Great Western Highway	25. Between Mount Victoria and Lithgow (Commencement date: 19 Jan 2015) (Approximate length: 15 km)	4	9	19	0	2	2	0	0	0	781	824	501
L							Totals:	874	1,231	1,547	2,802	2,817	2,026
		[x] This shading indicates that the relevant length was not yet operational (for the whole of that year).											
	<u>Notes:</u>	*					reases	in heav	vy vehic	le traffic	alona		
	average speed enforcement routes.												

NSW Speed Camera Programs Annual Review 2018 – Appendix D: Heavy vehicle average speed cameras

# D.5 Infringement Data

A total of 2,130 speeding infringements, resulting in total fines of \$1,033,608, were issued at NSW heavy vehicle average speed enforcement lengths in 2017.

This represents an average of 85 infringements per length during the 2017 calendar year.

# D.6 Summary

Overall, there has been a reduction in fatal crashes and casualty crashes involving a heavy vehicle on NSW average speed enforcement lengths since those lengths were installed, compared with the five year period prior to installation.

This represents a notable road safety improvement when compared to NSW heavy vehicle volumes, which have risen 11 per cent over the same period.<sup>2</sup>

NSW is currently expanding the heavy vehicle average speed camera program to metropolitan areas, and CRS will continue to monitor the program.

<sup>&</sup>lt;sup>2</sup> Estimates for Vehicle Kilometres Travelled (VKT) estimated in Yearbook 2018: Australian Infrastructure Statistics, Statistical Report, BITRE

NSW Speed Camera Programs Annual Review 2018 - Appendix D: Heavy vehicle average speed cameras