## Annual NSW Speed Camera Performance Review 2015

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- Approved by the NSW Population \& Health Services Research Ethics Committee on 19th December 2013.
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## 1 Executive summary

The purpose of the Annual NSW Speed Camera Performance Review is to systematically monitor speed cameras in NSW to ensure they are having a positive road safety effect. The NSW Centre for Road Safety (CRS) has reviewed all NSW speed cameras against the criteria outlined in the NSW Speed Camera Strategy 2012, culminating in this report.
This series of annual reports 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.

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

### 1.1 How we review speed cameras

The review criteria for each camera type outlined in the Strategy has been determined by CRS based on the road safety benefit that is expected to be achieved from each program. Broadly speaking, review recommendations are measured by two key criteria:

- the reduction in casualty crashes and casualties, caused by the speed camera slowing drivers down, and
- the reduction in infringement rates, caused by the speed camera slowing drivers down.

Typically at least five years of crash and casualty data are required to make an assessment of a camera's safety benefit. The red-light speed camera and point-topoint enforcement programs are in their early stages, with most locations only operational for four years or less. Given the infancy of these programs, the data analysed in this annual review is generally not sufficient to assess reliably the safety benefit of individual camera locations. Where there is sufficient data, we indicate a recommendation to either retain or review the camera.
Because mobile speed cameras are designed to generally deter speeding across the road network, and because they move regularly, these annual reviews examine crash and speed data for the entire state, rather than individual mobile speed camera locations.

### 1.2 Key findings

This annual review analyses data relating to crashes that occurred between 1 January 2014 and 31 December 2014.

### 1.2.1 Mobile speed camera program

Program size as at 31 December 2014: 7,000 hours of enforcement per month at 640 locations

Overall, the trend in road fatalities and annual speed surveys indicate that the mobile speed camera program continues to deliver positive road safety benefits, compared with results prior to the reintroduction of the mobile speed camera program in 2010. Over 99 per cent of vehicles passing mobile speed cameras are not infringed for
speeding. This high rate of compliance has remained consistent since 2010 when the program was reintroduced.
The 2014 road toll of 307 fatalities on NSW roads is the lowest annual figure since 1923. This is also 32 per cent lower than in 2009 (with 453 fatalities), before the reintroduction of the mobile speed camera in 2010.

There has also been a 39 per cent reduction in speed related fatalities from 2009 to 2014, and results from the 2014 speed surveys show speeding remains below the level observed in 2009.

The percentage of light vehicles exceeding the speed limit by more than $10 \mathrm{~km} / \mathrm{h}$ in 2014 has reduced in all speed zones compared to 2013, which builds on impressive results from previous years. In 2014 fewer light vehicles were exceeding the speed limit by more than 10km/h compared to all years from 2009 to 2013.
The percentage of heavy vehicles exceeding the speed limit by up to $10 \mathrm{~km} / \mathrm{h}$ has increased in some speed zones compared to 2013; however, the results still compare favourably compared to previous years. Significant reductions in heavy vehicles exceeding the speed limit by over $10 \mathrm{~km} / \mathrm{h}$ continued into in 2014, achieving the lowest percentages over the entire five year period in $40 \mathrm{~km} / \mathrm{h}, 50 \mathrm{~km} / \mathrm{h}, 60 \mathrm{~km} / \mathrm{h}$ and $90 \mathrm{~km} / \mathrm{h}$ zones and maintaining low levels in $100 \mathrm{~km} / \mathrm{h}$ zones.

### 1.2.2 Red-light speed camera program

## Program size as at 31 December 2014: 164 cameras at 145 intersections

Preliminary analysis of the red-light speed camera program show encouraging results in changing driver behaviour.

Overall, when comparing the five years before red-light speed cameras were installed to the post installation period for each camera location there has been a:

- 34 per cent reduction in casualty crashes
- 39 per cent reduction in total casualties at these locations including:
- 55 per cent reduction in fatalities
- 32 per cent reduction in serious injuries
- 45 per cent reduction in moderate injuries
- 36 per cent reduction in minor/other injuries
- 44 per cent reduction in pedestrian casualties

These reductions in casualties represent a total saving of $\$ 95.1$ million to the community.

One red-light speed camera has been operating for more than five years as at 31 December 2014, Cumberland Highway, Cabramatta at St Johns Road. Since the camera was installed there has been a 16 per cent reduction in casualty crashes and a 37 per cent reduction in casualties at this location.
The 10 highest infringing red-light speed cameras all had high compliance rates with more than 99 per cent of drivers passing the cameras without being infringed for redlight running or speeding. Where cameras have been operating for longer than two years, infringements have generally decreased over time.

### 1.2.3 Fixed speed camera program

## Program size as at 31 December 2014: 132 cameras at 107 locations $^{1}$

Overall, when comparing the five years before the fixed speed cameras were installed to the most recent five years there has been a:

- 38 per cent reduction in the number of casualty crashes
- 91 per cent reduction in fatalities
- 42 per cent reduction in injuries at these camera locations

These reductions in total casualties represent a saving of $\$ 526.1$ million to the community.
Of the 94 fixed speed camera locations, 86 were found to offer continued safety benefits. One location - Hartley, Great Western Highway was identified last year for review, and this will occur once road works at the location is completed. One location has been recommended to be removed because it is no longer providing road safety benefits and is recommended to be relocated to a higher priority location and the remaining six were identified for further review. The locations to be reviewed or removed are:

- Bonville, Pine Creek Way - Remove
- Bomaderry, Bolong Road - Review
- Brogo, Princes Highway - Review
- Burringbar, Tweed Valley Way - Review
- North Narrabeen, Pittwater Road - Review
- Queanbeyan, Lanyon Drive - Review
- Rydalmere, Victoria Road - Review
- Hartley, Great Western Highway - Review following road works

Cameras at three further locations have been removed due to major road works and will be reviewed once these road works have been completed. These locations are:

- Berry, Princes Highway - Review following road works
- Foxground, Princes Highway - Review following road works
- Terrigal, Terrigal Drive - Review following road works

The 10 highest infringing fixed speed cameras were all found to reduce crashes and casualties. All had high compliance rates with more than 99 per cent of drivers passing the cameras without being infringed for speeding.

### 1.2.4 Point-to-point speed camera program

## Program size as at 31 December 2014: 24 lengths

Preliminary analysis of point-to-point speed enforcement lengths shows that there has been a low number of heavy vehicle crashes since camera operation. Infringement data for average speed offences in point-to-point enforcement lengths show a high level of compliance and a low number of infringements.

[^0]
## 2 Introduction

In response to the Auditor-General's recommendation, the NSW Government announced the NSW Speed Camera Strategy on 1 June 2012. The strategy provides an integrated framework for speed enforcement in NSW and aims to improve the transparency and understanding of the use of speed cameras in NSW through increased community engagement and education. The 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.

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

The purpose of the Annual NSW Speed Camera Performance Review is to present the results of performance monitoring carried out on each of the speed camera programs in NSW. The Auditor-General found that the right speed camera in the right place can save lives. Cameras not delivering the expected road safety benefits will be monitored and reviewed and, potentially recommended for removal. The findings from this report will guide future speed enforcement operations.

This report also addresses the NRMA Motoring \& Services' request for an assessment of all high infringing speed camera locations across NSW.

### 2.1 The speeding problem

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

Speeding increases the risk of having a crash, and increases the risk of serious injury or death 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.

### 2.2 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. For an example of how we can see speed cameras changing driver behaviour, Figure 1 depicts the number of infringements per month since the commencement of enforcement at three of the highest infringing fixed speed camera locations.

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


This pattern shows 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 C contains this type of graph for every fixed speed camera location in NSW.

### 2.2.1 Data table trends in speed camera infringements over time

| Month | Beverly Hills King Georges Road | Kogarah - Princes Highway | Moore Park Cleveland Street | Lindfield - Pacific Highway |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 9009 | 599 | 1 | 6161 |
| 2 | 16685 | 2296 | 6176 | 4155 |
| 3 | 6040 | 8724 | 9110 | 3332 |
| 4 | 3158 | 5630 | 10479 | 2319 |
| 5 | 3017 | 4425 | 8573 | 2640 |
| 6 | 3521 | 4346 | 7232 | 2001 |
| 7 | 2714 | 5791 | 9448 | 588 |
| 8 | 982 | 3107 | 7535 | 1109 |
| 9 | 2768 | 4091 | 9313 | 609 |
| 10 | 1692 | 2886 | 5164 | 269 |
| 11 | 672 | 3487 | 8532 | 505 |
| 12 | 1157 | 4873 | 3804 | 1642 |
| 13 | 2610 | 3346 | 2991 | 1724 |
| 14 | 2497 | 2599 | 3678 | 1624 |
| 15 | 2192 | 3966 | 5314 | 1056 |
| 16 | 2024 | 3057 | 4430 | 1080 |
| 17 | 967 | 2216 | 5019 | 925 |
| 18 | 1468 | 1612 | 5486 | 1121 |
| 19 | 813 | 1029 | 3442 | 772 |
| 20 | 519 | 989 | 4734 | 941 |
| 21 | 1553 | 852 | 5114 | 1054 |
| 22 | 1281 | 2114 | 5071 | 664 |
| 23 | 1957 | 2008 | 5186 | 1006 |
| 24 | 579 | 1770 | 3334 | 441 |
| 25 | 648 | 1502 | 3015 | 398 |
| 26 | 685 | 2124 | 3464 | 846 |
| 27 | 157 | 2130 | 3263 | 776 |
| 28 | 1014 | 2340 | 3268 | 554 |
| 29 | 812 | 2950 | 3172 | 653 |
| 30 | 756 | 3304 | 3203 | 646 |
| 31 | 1838 | 1946 | 2873 | 317 |
| 32 | 1854 | 1203 | 2601 | 353 |
| 33 | 1127 | 2491 | 2964 | 589 |
| 34 | 1531 | 2789 | 3071 | 408 |
| 35 | 1315 | 1388 | 3111 | 548 |
| 36 | 857 | 2253 | 3006 | 395 |
| 37 | 1166 | 1728 | 1610 | 352 |
| 38 | 443 | 550 | 2002 | 431 |
| 39 | 923 | 31 | 2069 | 440 |
| 40 | 980 | 1465 | 1055 | 191 |


| Month | Beverly Hills King Georges Road | Kogarah - Princes Highway | Moore Park Cleveland Street | Lindfield - Pacific Highway |
| :---: | :---: | :---: | :---: | :---: |
| 41 | 778 | 2888 | 2751 | 413 |
| 42 | 572 | 2554 | 2533 | 166 |
| 43 | 767 | 1330 | 2757 | 40 |
| 44 | 791 | 1876 | 2931 | 122 |
| 45 | 434 | 2197 | 2421 | 156 |
| 46 | 878 | 1395 | 2029 | 113 |
| 47 | 303 | 1997 | 1873 | 245 |
| 48 | 77 | 1463 | 2101 | 59 |
| 49 | 737 | 1156 | 2488 | 152 |
| 50 | 212 | 1659 | 2672 | 300 |
| 51 | 499 | 1393 | 2294 | 233 |
| 52 | 483 | 1093 | 2336 | 156 |
| 53 | 326 | 1298 | 3188 | 96 |
| 54 | 482 | 1411 | 2384 | 59 |
| 55 | 633 | 758 | 2025 | 29 |
| 56 | 669 | 1202 | 2007 | 48 |
| 57 | 485 | 1040 | 1614 | 42 |
| 58 | 698 | 816 | 2623 | 27 |
| 59 | 592 | 803 | 1956 | 27 |
| 60 | 572 | 747 | 731 | 38 |
| 61 | 505 | 804 | 1441 | 5 |
| 62 | 502 | 948 | 1934 | 37 |
| 63 | 713 | 834 | 1331 | 33 |
| 64 | 413 | 704 | 1550 | 32 |
| 65 | 569 | 917 | 1665 | 1 |
| 66 | 269 | 735 | 1528 | 66 |
| 67 | 424 | 602 | 2199 | 55 |
| 68 | 222 | 936 | 2159 | 255 |
| 69 | 212 | 1016 | 417 | 654 |
| 70 | 592 | 638 | 1639 | 453 |
| 71 | 567 | 817 | 2556 | 701 |
| 72 | 607 | 760 | 920 | 677 |
| 73 | 577 | 746 | 946 | 625 |
| 74 | 538 | 899 | 1467 | 993 |
| 75 | 578 | 824 | 1484 | 821 |
| 76 | 535 | 137 | 1228 | 846 |
| 77 | 510 | 358 | 2237 | 857 |
| 78 | 236 | 360 | 1627 | 894 |
| 79 | 312 | 370 | 1874 | 280 |
| 80 | 459 | 595 | 2083 | 695 |
| 81 | 230 | 643 | 1935 | 503 |
| 82 | 495 | 365 | 2559 | 444 |
| 83 | 360 | 673 |  | 587 |
| 84 | 461 | 829 |  | 614 |
| 85 | 492 | 555 |  | 466 |
| 86 | 444 | 729 |  | 440 |
| 87 | 534 | 711 |  | 478 |
| 88 | 553 | 684 |  | 553 |
| 89 | 506 | 783 |  | 280 |
| 90 |  | 455 |  | 728 |

### 2.3 How can I tell if a location has a speed camera?

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

The NSW Centre for Road Safety website also lists all speed camera locations in NSW. The website allows any member of the public to find the positions of all mobile, fixed, red-light speed cameras, and the positions of all point-to-point speed zones.

### 2.4 Where does speed camera revenue go?

All fines from speed and red light cameras are paid into the Community Road Safety Fund. This fund goes towards numerous community road safety initiatives, including road safety engineering works, enhanced enforcement by the NSW Police Force and public education campaigns. Note this does not include fines issued by police.

## 3 Types of speed camera programs in NSW

Speed cameras are 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 they can also operate in locations that are difficult for police to enforce.
Table 1 shows the four types of speed cameras used in NSW.
Table 1: Types of speed camera enforcement in NSW

|  | Speed cameras used in NSW |  |  |
| :--- | :--- | :--- | :--- |
| Camera Type | Main purpose | Introduced | Size of NSW <br> program as at 31 <br> December 2014 |
| Mobile | General network <br> deterrence | First introduced in 1991. <br> Ceased operation in <br> December 2008 and re- <br> introduced in 2010 | 640 locations <br> 7,000 hours of <br> enforcement per <br> month |
| Red-light speed | Location specific <br> (To address high <br> risk intersections) | 2009 | 164 cameras at 145 <br> intersections |
| Fixed speed | Location specific <br> (To address black <br> spot/high risk) | 1997 | 132 cameras at 107 <br> locations |
| Point-to-point | Route enforcement <br> (For heavy vehicles <br> only) | 2010 | 24 lengths |

### 3.1 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. Therefore the benefit of mobile speed cameras in reducing speeding is not limited to mobile speed camera locations or for 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.

### 3.2 Red-light speed cameras

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. By reducing the incidence of speeding and red-light running at enforced intersections, red-light speed cameras are also expected to change driver behaviour at

[^1]intersections more broadly, reducing speeding and red-light running across the network.

### 3.3 Fixed speed cameras

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

### 3.4 Point-to-point speed cameras

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

## 4 Criteria for reviewing speed cameras

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

Table 2: Criteria for measuring camera performance

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

Table 3: Criteria for measuring overall performance of enforcement programs

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

## 5 Review methodology

### 5.12014 road crash data

The crash data used in this annual review include crashes which occurred between 1 January 2014 and 31 December 2014. Data for this time period were finalised at the time of writing the report, however injury severity data presented in this report for July to December 2014 is preliminary and should be treated with caution. The matched hospital admission and emergency presentation data for this time period were incomplete at the time of writing this report so results may under-represent the true number of injuries for this time period.

The crash statistics recorded by Transport for NSW in the CRS crash recording database, CrashLink, were confined to those crashes which conform to the national guidelines for reporting and classifying road vehicle crashes ${ }^{3}$, 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
- The crash involved at least one person being killed or injured or at least one motor vehicle being towed away


### 5.2 Injury severity

Crash data was presented by severity of injury. The severities are 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 traffic unit controller) who is matched to hospital admission record on the same day or on the day after a crash and did not die within 30 days of the crash
- Moderate injury: a person identified in CrashLink (casualty or traffic unit controller) who is matched to emergency department presentation record on the same day or on the day after a crash (but not subsequently admitted to hospital)
- Minor / Other injury: a person identified as an injury in CrashLink who is not matched to a hospital admission record or emergency department presentation record within two days of the crash
- Injury- Severity uncategorised: a person identified as an injury in CrashLink prior to 2005
- Casualty: any person killed or injured because of a crash
- Casualty crash: a crash that results in at least one person killed or injured

[^2]
### 5.3 Important notes on crash data and injury severity

This annual review of speed cameras includes changes to crash data reported. The method of reporting tow away crash data changed in October 2014. The tow away crash data from this date is no longer comparable to the before period, and for this reason results exclude tow away crashes. Furthermore, the annual review now includes more detail about the severity of injuries for data from 2005 onwards. This improvement to the data has occurred because crash data has been matched to hospital admissions or emergency department presentations from this date onwards. Further detail is provided below.

### 5.3.1 Additional information on tow away crash data

The crash statistics reported in this annual review excluded tow away crashes (where no people were killed or injured in the crash). Previous reviews included tow away crashes, however in October 2014 the reporting process for tow away crashes changed, which resulted in significant reductions to the number of those crashes reported and the level of detail contained in the data. This means that tow away crashes reported prior to October 2014 were not comparable to data reported after this date, and therefore were not suitable for before-and-after comparison of speed cameras.

### 5.3.2 Additional information on injury severity

Crash data reported from 2005 onwards includes additional detail regarding injury severity, and are categorised as Serious Injury, Moderate Injury or 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.

Crash data for 2014 was incomplete with respect to linkage to hospital admission and emergency department presentation records and was considered preliminary. Updates to linkage of 2014 crash data to hospital admissions and emergency department presentations will occur in 2016, so the data presented in this report was preliminary and subject to change.

An important outcome to note from the data linkage matching process was the inclusion of motor vehicle traffic controllers who were not identified as "injured" in the NSW Police reports, but who were matched to a hospital record. This resulted in the identification of additional injuries.
Crash data results for injuries for the six quarters from July 2010 to the end of 2011 were over-estimated due to a coding practice change in the injury recording process. The coding practice change resulted in an over enumeration of around nine per cent for this period, mostly amongst vehicle occupants, and may influence the results of casualties and injuries for the review period across the speed camera programs. Where a camera appeared not to be performing, CRS reviewed the crash data to determine if the camera was affected by the coding practice change.

### 5.4 Speed camera crash data

Crash data was examined at individual speed camera locations for fixed, red-light speed and point-to-point cameras to ascertain performance at camera locations. For mobile speed cameras, the annual review examined crash data for the entire state rather than individual locations due to the mobility of mobile speed cameras and their purpose of creating a general deterrence effect across the road network.

Typically at least five years of crash and casualty data are required to make an assessment of a camera's performance. ${ }^{4}$ Since red-light speed cameras and point-topoint enforcement programs have been operational for less than five years (with the exception of one red-light speed camera location), the data provided in the annual review were not sufficient to reliably assess the performance of individual camera locations and only preliminary observations are made.

### 5.4.1 Red-light speed cameras

Preliminary analysis of the red-light speed camera program was conducted by intersection, rather than by camera. At the end of 2014, there were 164 red-light speed cameras in total, operating at 145 intersections around Sydney, Newcastle and Wollongong. 18 intersections had two or more cameras.
Crash data were examined at each intersection with a red-light speed camera for all crashes that occurred within 10 metres of the intersection.

- Pre installation period: crash data for the five years up to 91 days before the commencement date of the camera, because this was the period in which the camera was under construction. There are two locations where the camera was installed, but enforcement did not commence for some time, and a longer period than 91 days was used at these locations. This is indicated in the report.
- Post installation period: crash data from the commencement date of the camera to the end of 2014.

Note: Red-light speed cameras operate in warning mode for a period prior to issuing infringements.
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 was also provided for adjacent, right through and rear-end crashes before and after camera installation 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.

Rear-end crashes were included in the preliminary analysis, as it has been reported that red-light cameras can lead to an increase in rear-end crashes due to drivers suddenly stopping on an amber light. ${ }^{5}$ 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.

Individual camera locations were not assessed because very few locations have been in operation for a long enough time period to appropriately measure their performance.

[^3]
## Additional technical notes for the analysis of red-light speed cameras

1. To identify crashes at each intersection, CRS initially examined crashes geo-coded as within 90 metres of the Traffic Control System (TCS) feature and that occurred at the intersection. Crashes were then assigned to the enforced intersection if they occurred within, or up to 10 metres from, the intersection.
2. These were viewed and attributed to the intersection under analysis taking into account the geo-coding as well as the values in the street name, the ID feature, and the intersection-type fields.
3. Where unclear, the correct location of the crash was confirmed or inferred from the original police report.
4. The commencement of the warning letter period was listed for each camera. For the analysis of intersections with two cameras, the post installation period began with the earlier commencement date.
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 http://roadsafety.transport.nsw.gov.au/downloads/definitions-notes.pdf
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 pre installation period and the available data for the post installation period until December 2014 (currently less than five years for nearly all red-light speed camera locations).
7. The estimated casualty cost saving for the program was calculated comparing the post installation to the pre installation data 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 $\$ 6,785,013$ per fatality, $\$ 244,770$ per serious injury and $\$ 51,534$ per moderate or minor/other injury, based on the costs for urban fatal and injury reductions.
8. Data for the crash analysis were not ranked and were presented alphabetically by suburb of the camera location.

### 5.4.2 Fixed speed cameras

Analysis of the fixed speed camera program was conducted by fixed speed camera location, rather than by camera. While there are currently 107 fixed speed camera locations across NSW, 94 fixed speed camera locations were analysed in this report. Of the 107 locations, the following were excluded from this performance review:

- Seven locations operate in warning mode following the 2011 audit of speed camera programs. These cameras were not reviewed as part of the performance review, but each annual report includes information on crashes and infringements at these locations.
- Five locations are located in tunnels (and were sometimes referred to in the review as "high risk" locations). These were generally installed when the tunnel was constructed, therefore no pre-installation data are available.
- One location (Sandgate, Pacific Highway) which was identified for removal following the 2013 annual review, and is due to be switched off and removed once safety works have been completed at the location.
For each of the 94 locations included in the analysis, typically crash data within 500 metres either side of the fixed speed camera was examined. For cameras located within a school zone, crash data was examined from patch-to-patch (i.e. the length of road designated as a school zone, as identified by the start and end patches marked on the road). For 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. In this report, these two cameras were listed as separate locations in the directions they enforce. However, crash and infringement data for these locations are included in each annual report.
Fixed speed camera performance was measured through analysis of crash data from the "before" period (pre installation) and the "after" period (post installation). In most cases, the analysis provided crash data for the five year before period, ending three months directly before the commencement date (as this was the period in which warning letters are issued). The after period was the most recent five calendar year period (20010-2014) to assess the current performance of the speed camera.

Based on the before and after period crash analysis, and along with other relevant site specific information, for each fixed speed camera location, the report made a recommendation of either:

- Retain
- Recommended for review, or
- Reviewed in the past five years and not considered for review this year

Fixed speed camera locations were recommended for review when:

- The number of casualty crashes in the last five years had increased compared to the before period.
- The number of casualties in the last five years had increased compared to the before period.
- There was a low road safety risk at the location based on the crash history and there was a low level of speeding based on the infringement data at the location.
- Major road works such as curve re-alignment or highway duplication had significantly improved safety at the location.
Where a fixed speed camera location was identified for review based on the above criteria, a further desktop review of the location was conducted, to determine the appropriateness of the recommendation. This analysis considered the trend in casualty crashes, the circumstances of fatal crashes at the location, the specific types of crashes that occurred at the location and any other known site-specific details that assist in making a recommendation. Where there was additional information which supported the retention of the camera, this is indicated in the report and the camera is recommended to be retained.

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 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 specified otherwise.
2. For each location, the pre and post installation periods vary depending on the date the camera commenced infringement, and excluded the three month period directly before the commencement date. For each location, the pre installation period was defined as the five year period up to three months prior to the commencement date of camera infringements. The post installation period was defined as the most recent five year calendar period.
3. In instances when there was less than five years of pre installation data, the pre installation 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 before and after the cameras were installed. This allows an approximate comparison to be made between the five year pre installation period and the most recent five calendar year post installation period (20102014).
5. The estimated casualty cost for the pre installation and the most recent five calendar year post installation 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 $\$ 7,090,792$ per fatality, $\$ 291,817$ per serious injury, $\$ 59,871$ per moderate or minor/other injury and $\$ 138,713$ per uncategorised injury, based on the costs for weighted average of urban and non-urban fatal and injury reductions.
6. For each fixed speed camera location a test of significance of the change in casualty crashes was conducted using the conditional method ${ }^{6}$ comparing 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 period to determine if there was a significant increase or decrease.
7. Data for the crash analysis have not been ranked and are presented alphabetically on the location description of the camera location.

### 5.4.3 Point-to-point speed cameras

At the end of 2014, there were 24 point-to-point enforcement lengths: two lengths were installed in 2010; 13 lengths were installed in 2011; four lengths were installed in 2012; two lengths were installed in 2013; three lengths were installed in 2014. The remaining point-to-point length was installed in early 2015. There were eight lengths that enforced for the entire 2012-2014 review periods; however this was still a period of four years or less and was insufficient to assess the performance of individual enforcement lengths.
The report provided heavy vehicle crash data for the five year period prior to the length commencing enforcement and available data for the period after the length was activated in warning period.

[^4]
### 5.5 Speed survey data

Vehicle speeds were assessed state-wide through the CRS annual speed survey program. In 2014 annual speed surveys were conducted at 175 locations across NSW.

Each year, CRS conducts speed surveys 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. 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.

Speed surveys are not undertaken at specific speed camera enforcement locations, therefore at camera locations infringement data is used as a proxy for speed data in this review. Speed surveys are undertaken at a sample of speed camera enforcement locations so that speeding behaviour can be assessed for these programs.

### 5.6 Infringement data

Recent infringement data were used as a proxy measure of speeding behaviour at camera locations. Infringement data analysed in this report included penalty notices detected by Roads and Maritime Services speed cameras from July 2002 onwards (no earlier infringement data was 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 NSW Office of State Revenue (http://www.osr.nsw.gov.au/info/statistics).

## 6 What happens after cameras are reviewed?

### 6.1 Monitoring the speed cameras that are delivering safety benefits

Fixed speed cameras remain in place when they are found to be delivering road safety benefits. All such cameras continue to be reviewed each year as part of the annual speed camera performance review.

### 6.2 Identifying cameras that require a safety review

Safety reviews involve a comprehensive examination of crash history, traffic volumes, road conditions, land use and high risk user behaviour near the fixed speed camera location. Safety reviews also involve the consideration of road safety issues raised by the community in regard to the locations.
If the review determines that the camera is not delivering the expected safety benefits at the location, it will be recommended for removal and possible relocation, and alternative road safety treatments will be considered to address any identified road safety issues. Alternative treatments may involve improved signage, road works, traffic facilities, speed zoning reviews and targeted communications.

### 6.3 Decommissioning the speed cameras that are not improving safety

In July 2011, the NSW Auditor-General released an audit report on the statewide speed camera program. The report identified 38 speed cameras that were not delivering the expected road safety benefit. Consequently, the Minister for Roads, Maritime and Freight directed that these 38 cameras be deactivated; however, cameras at seven of these locations remain in warning mode following safety concerns expressed by the community.
Since the Auditor-General's report, annual speed camera performance reviews report on the road safety performance of speed cameras across the state. Where speed cameras are required to be deactivated and removed because they are not delivering expected road safety benefits, Transport for NSW consults with key stakeholders to develop alternative road safety treatments to address existing road safety risks at each location. These key stakeholders include local communities, councils, nearby schools (if the camera is located in a school zone), NRMA Motoring and Services, the NSW Police Force.
As at 31 December 2014 speed cameras had been removed from 25 locations. At the remaining locations that have been identified for decommissioning, a program of alternative safety works has commenced. At each site, when the alternative safety works have been completed, the speed cameras and signage will be removed. The exception is the speed camera location at Pacific Highway, Sandgate; these cameras remain in operation and will be switched off and removed once safety works are completed.

### 6.4 Results of last year's review

The 2014 Annual NSW Speed Camera Performance Review identified two fixed speed camera locations for comprehensive review: Richmond Road, Berkshire Park; and Great Western Highway, Hartley.

- Richmond Road, Berkshire Park: The review of Richmond Road, Berkshire Park was conducted in November 2014, and recommended that the speed camera be retained as it continues to provide road safety benefits.
- Great Western Highway, Hartley: The speed camera on the Great Western Highway, Hartley has not yet been reviewed due to planned road works at this location. Because the change in the road environment is likely to affect the performance of the camera, it will be reviewed following the completion of the road works in 2016.


## 7 Results and discussion

This review has found that across the four programs, speed cameras are continuing to improve road safety in NSW. Early results from the red-light speed, mobile speed and point-to-point 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. However, with less than five years of operation, it is still too early to assess the longer term safety benefit of these new programs. CRS will continue to monitor the performance of these programs annually.

### 7.1 Mobile speed cameras

The analysis of the mobile speed camera program is available at Appendix A.
In August 2011, a review of the NSW mobile speed camera program found that in the first year of operation (19 July 2010 to 18 July 2011) the program contributed to a 19 per cent statistically significant reduction in fatalities throughout NSW. This represents a saving of 89 lives and an estimated community saving of around $\$ 575$ million.
The immediate impact of the reintroduced mobile speed cameras is evident. The significant reduction in fatalities (and speed-related fatalities) in 2010, the first year of the program, can be attributed to the effect of enforcement as well as the deterrence effect, which produced broader speed limit compliance due to the less predictable enforcement of mobile speed cameras.

The ongoing impact of the mobile speed camera program is reflected in the 2014 road toll. The 2014 road toll of 307 fatalities on NSW roads is the lowest annual figure since 1923 (with 231 fatalities). This is also 32 per cent lower than in 2009 (with 453 fatalities), before the reintroduction of the mobile speed camera in 2010. Speedrelated fatalities over 2009 to 2014 have also gradually decreased over this period, with the number of speed-related fatalities of 127 in 2014 being the lowest number ever recorded and representing a 39 per cent reduction compared to 2009 levels.
Results from the 2014 speed surveys show speeding continues to remain below the level observed in 2009, prior to the reintroduction of the mobile speed camera program in 2010.
The percentage of light vehicles exceeding the speed limit by more than $10 \mathrm{~km} / \mathrm{h}$ in 2014 has reduced in all speed zones compared to 2013 , which builds on impressive results from previous years. The results show that in 2014 fewer light vehicles were exceeding the speed limit by more than 10km/h compared to all years from 2009 to 2013. As a percentage, this figure has remained lower than 2009 to 2011 figures.

The percentage of heavy vehicles exceeding the speed limit by up to $10 \mathrm{~km} / \mathrm{h}$ has increased in some speed zones compared to the previous year. While some of the reductions in heavy vehicle speeding by up to $10 \mathrm{~km} / \mathrm{h}$ have been lost, the 2014 results still compare favourably compared to previous years. Significant gains in reducing heavy vehicles exceeding the speed limit by more than $10 \mathrm{~km} / \mathrm{h}$ have been maintained in 2014, achieving the lowest percentages over the entire five year period in $40 \mathrm{~km} / \mathrm{h}, 50 \mathrm{~km} / \mathrm{h}, 60 \mathrm{~km} / \mathrm{h}$ and $90 \mathrm{~km} / \mathrm{h}$ zones and maintaining a low level of speeding at this level in $100 \mathrm{~km} / \mathrm{h}$ zones.

Overall, the trend in road fatalities and annual speed surveys demonstrates that the mobile speed camera program continues to deliver positive road safety benefits, compared with results prior to the reintroduction of the mobile speed camera program. The general decrease in speeding observed in the annual speed surveys,
over the past five years, provides evidence that mobile speed cameras provide a general deterrence to drivers.
In 2014 the mobile speed camera program increased from around 930 hours of enforcement to the full program size of 7,000 hours of enforcement per month. With this larger program, there is a greater coverage of the road network at various times and locations and, like police enforcement, this mobility increases the deterrence effect due to the unpredictability of the exact location of speed enforcement.

In 2014 there were a total of 55,467 infringements resulting in $\$ 10.54$ million in fines from mobile speed camera enforcement. The cost of conducting the mobile speed camera program in 2014 was $\$ 17.4$ million.

From June 2012, there was a decrease in infringements that 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 recognise 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. In 2014, the number of infringements issued increased in line with the increased level of enforcement by month, although there appears to be a downward trend towards the latter half of 2014. This trend indicates that driver behaviour has changed with to the higher level of mobile speed camera enforcement.

Since the program was reintroduced in 2010, the compliance rate of vehicles passing a mobile speed camera that are not infringed for speeding remains high. In 2014, 99.79 per cent of vehicles passing mobile cameras were not infringed for speeding.

CRS has developed and implemented a speed camera public education campaign that has supported the rollout of the mobile speed camera program. CRS evidence shows that enforcement and strong public education campaigns change driver behaviour and help prevent speed-related crashes and trauma through awareness of enforcement.

CRS has identified 26 of the 640 approved mobile speed camera locations that were previously used by the Police but are no longer operationally useful because no suitable enforcement sites have been identified. Therefore these enforcement locations are not providing a road safety benefit because there is no enforcement at these locations. These locations are listed in the table below and will be decommissioned.

Table 4: Mobile speed camera locations to be decommissioned

| Suburb/Town | Road |
| :--- | :--- |
| Annandale, Camperdown, Leichhardt, Petersham, Stanmore | Parramatta Road |
| Ashfield, Haberfield, Summer Hill | Parramatta Road |
| Auburn, Clyde, Granville, Harris Park | M4 Motorway |
| Beaumont Hills, Kellyville, Kellyville Ridge, Stanhope Gardens | Windsor Road |
| Belford, Branxton, East Branxton, Lower Belford | New England Highway |
| Beresfield | John Renshaw Drive |
| Burwood, Concord, Croydon, Five Dock | Parramatta Road |
| Burwood, Concord, Homebush, North Strathfield, Strathfield | Parramatta Road |
| Camperdown, Chippendale, Forest Lodge, Glebe, Ultimo | Parramatta Road |
| Capertree, Round Swamp | Castlereagh Highway |
| Cartwright, Hinchinbrook, Hoxton Park, Miller, Prestons | Hoxton Park Road |
| Cassilis, Uarbry | Golden Highway |
| Centennial Park, Woollahra | Oxford Street |
| Coffs Harbour, Korora, Moonee Beach, Sapphire Beach | Pacific Highway |
| Corowa | Redlands Road |


| Suburb/Town | Road |
| :--- | :--- |
| Cremorne, Mosman, Neutral Bay | Military Road |
| Dean Park, Doonside, Glendenning, Oakhurst, Quakers Hill | Richmond Road |
| Dumaresq Island, Glenthorne, Pampoolah | Pacific Highway |
| East Gosford, Point Frederick | York Street |
| East Maitland, Maitland, South Maitland | New England Highway |
| Finley, Tocumwal | Newell Highway |
| Gateshead | Pacific Highway |
| Hartley, South Bowenfels | Great Western Hwy |
| Kingsvale, Wombat, Young | Back Creek Road |
| Marchmont, Murrumbateman | Barton Highway |
| Monak | Sturt Highway |

### 7.2 Red-light speed cameras

The analysis of red-light speed camera locations is available at Appendix B.
Overall, there has been a 34 per cent reduction in casualty crashes and a 39 per cent reduction in total casualties at the 145 red-light speed camera locations since the cameras were installed compared with the five year period prior to installation. Of the total casualties, there has been a 55 per cent reduction in fatalities, 32 per cent reduction in serious injuries, 45 per cent reduction in moderate injuries and a 36 per cent reduction in minor/other injuries. This reduction in casualties represents a saving of $\$ 94.8$ million to the community.
There was a 44 per cent reduction in pedestrian casualties at red-light speed camera locations. There has also been a reduction in the three main intersection crash types with a 49 per cent reduction in adjacent crashes; a 36 per cent reduction in rightthrough crashes; and a 22 per cent reduction in rear-end crashes. The reduction in rear-end crashes is a positive result for the combination of red-light and speed enforcement because previous research has found that while red-light cameras reduce more severe right-angle crashes, rear-end crashes can sometimes increase. The addition of speed enforcement to red-light cameras is a countermeasure that assists in addressing the small increase in rear-end crashes at red-light speed camera locations. As can be seen from the results, it also reduces pedestrian casualties due to a decrease in vehicle speeds.
In 2014 there were a total of 281,546 infringements resulting in total fines of $\$ 91.91$ million at red-light speed camera intersections. In NSW, the penalty for running a redlight is higher than most speeding penalties because the consequences of this behaviour pose a greater risk. Red-light running can lead to severe T-bone and pedestrian crashes where the front of a car impacts with a pedestrian or the less protected side of a car. Generally, around 60 per cent of offences and 80 per cent of fines at red light speed camera locations are attributed to running a red light. Of the total red-light speed camera infringements for 2014: 164,636 (58 per cent) infringements and $\$ 71.41$ million in fines were for red-light offences; and 116,910 (42 per cent) infringements and $\$ 20.50$ million in fines were for speeding offences.

One red-light speed camera has been operating for more than five years as at 31 December 2014, Cumberland Highway, Cabramatta at St Johns Road. Since the camera was installed there has been a 16 per cent reduction in casualty crashes and a 37 per cent reduction in casualties at this location.
In next year's annual review a further 57 red-light speed camera locations will have a full five years of crash data following installation, at this time a decision will be made whether to retain the cameras or conduct comprehensive reviews of their performance.

As part of the NSW Speed Camera Strategy, the number of intersections with redlight speed cameras will expand to 200. As the red-light speed camera program continues to roll out, an increase in the volume of infringements is anticipated. However, following the program increase the number of infringements is expected to stabilise and return to a downward trend as driver behaviour changes.

At this stage, red-light speed cameras have not been in operation for long enough for there to be a meaningful trend in infringements. However, it is expected that red-light running and speeding at red-light speed camera intersections will decrease over time, thereby reducing the number of infringements and fines at these locations. While redlight running decreased slowly over time, speeding decreased more rapidly. This demonstrates an improvement in driver behaviour as a result of red-light speed cameras.

Early results for the NSW program also indicate that the expected road safety benefits are being achieved when compared with the evaluation of a similar program in Victoria ${ }^{7}$. While these early results are encouraging, it is too early to conclusively determine the safety benefit of individual locations and therefore no recommendations for review are proposed in this report. Typically at least five years of crash and casualty data are required to make an assessment of a camera's performance.

The 2013 review identified the below four locations where there has been a fatality since camera operation:

- Griffiths Road and Turton Road, Lambton
- O'Riordan Street and Gardeners Road, Mascot
- Anzac Parade and Lang Road, Moore Park
- Corrimal Street and Burelli Street, Wollongong

These fatalities occurred in 2012. No fatalities were identified in 2013 or in the current review period (2014 calendar year). While the cameras at these locations will not be considered for removal, the Centre for Road Safety conducted an initial investigation into the nature of these fatal crashes, with site investigations conducted at Griffiths and Turton Road, Lambton, and Corrimal Street and Burelli Street, Wollongong.

The investigation at O'Riordan Street and Gardeners Road, Mascot identified no safety deficiencies, and revealed the intersection will be upgraded in the near future as part of re-development work associated with Green Square. No safety deficiencies were also identified at the intersection at Anzac Parade and Lang Road, Moore Park.

Following the site investigation at Griffiths Road and Turton Road, Lambton, the traffic light display for eastbound motorists was upgraded. A mast arm has been installed which slightly overhangs the kerbside lane to improve the visibility of traffic lights to oncoming vehicles. A speed review was conducted at this location in 2014.
Following the site investigation at Corrimal Street and Burelli Street, Wollongong, additional pedestrian protection was provided by installing red arrows to control vehicles waiting to turn into adjacent streets. An upgrade to the line marking on Corrimal Street was also completed.

The review identified the 10 red-light speed camera locations with the highest number of infringements detected in 2014. The list is shown at the end of Appendix B. Most of the 10 speed camera locations are on main roads with high traffic volumes. As the red-light speed camera program has not been in operation for five years, it is too early

[^5]to assess the performance of these cameras. However, all 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.

### 7.3 Fixed speed cameras

The analysis of fixed speed camera locations is available at Appendix C.
Overall, when comparing the five years before the fixed speed cameras were installed to the current five year analysis period, there has been a 38 per cent reduction in the number of casualty crashes, a 91 per cent reduction in fatalities and a 42 per cent reduction in injuries at camera locations. In the five years before the cameras were installed there were 1,648 casualty crashes, resulting in 55 fatalities and 2,235 injuries. In the current five year analysis period there were 1,040 casualty crashes resulting in 5 fatalities and 1,315 injuries. This reduction in casualties represents a savings of $\$ 526.1$ million to the community. In 2014 a total of 296,059 infringements were issued resulting in total fines of $\$ 60.87$ million at fixed speed camera locations.
The majority of fixed speed cameras were found to be providing road safety benefits. The top 10 performing speed cameras based on a statistical analysis of the change in casualty crashes are listed in the table below.

Table 5: Top performing fixed speed cameras

| Location | \% Change in <br> casualty <br> crashes | \% Change in <br> casualties |
| :--- | :---: | :---: |
| Canterbury Road, Canterbury | $\downarrow 62 \%$ | $\downarrow 62 \%$ |
| Parramatta Road, Auburn | $\downarrow 67 \%$ | $\downarrow 75 \%$ |
| Terrigal Drive, Terrigal | $\downarrow 84 \%$ | $\downarrow 88 \%$ |
| Pacific Highway, Ewingsdale | $\downarrow 93 \%$ | $\downarrow 96 \%$ |
| Hume Highway, Lansvale | $\downarrow 51 \%$ | $\downarrow 52 \%$ |
| King Georges Road, Beverly Hills | $\downarrow 38 \%$ | $\downarrow 39 \%$ |
| Bexley Road, Bexley North | $\downarrow 57 \%$ | $\downarrow 66 \%$ |
| Pennant Hills Road, Carlingford | $\downarrow 45 \%$ | $\downarrow 49 \%$ |
| M1 Princes Motorway, Gwynneville <br> (northbound) | $\downarrow 73 \%$ | $\downarrow 84 \%$ |
| James Ruse Drive, Camellia | $\downarrow 44 \%$ | $\downarrow 53 \%$ |

Based on the analysis of 94 fixed speed camera locations, 8 locations were identified for a preliminary desktop review based on meeting at least one of the crash analysis criteria outlined in the review methodology section. These locations were:

- Bomaderry, Bolong Road
- Bonnyrigg, Elizabeth Drive
- Bonville, Pine Creek Way
- Burringbar, Tweed Valley Way
- Brogo, Princes Highway
- North Narrabeen, Pittwater Road
- Queanbeyan, Lanyon Drive
- Rydalmere, Victoria Road

Preliminary reviews of these locations were undertaken to gain an understanding of exactly what had occurred at each location.
The camera at one location, Bonnyrigg, Elizabeth Drive, was retained following the preliminary review.
The camera at Bonville was identified as no longer providing road safety benefits following the preliminary review, and is recommended to be removed. This fixed speed camera is located on Pine Creek Way, a former section of the Pacific Highway that has been bypassed, has a recent crash history that shows few casualties, a low level of speeding infringements and has had community representations requesting its removal. Due to the low number of recent crashes, and that there is a low level of road safety risk at this location due to the Pacific Highway duplication works, it was determined that a comprehensive review was not required and the camera should be switched off immediately and removed and relocated to another high priority location.
The remaining six locations were identified for comprehensive safety reviews to be undertaken by CRS. These locations are:

- Bomaderry, Bolong Road
- Brogo, Princes Highway
- Burringbar, Tweed Valley Way
- North Narrabeen, Pittwater Road
- Queanbeyan, Lanyon Drive
- Rydalmere, Victoria Road

Additionally, one fixed speed camera location - Hartley, Great Western Highway was identified for review in last years' annual review. This comprehensive review will be conducted following the road works that are being conducted at this location.
In total, 86 fixed speed camera locations found to offer continued safety benefits and will be retained. Three of these locations were removed in 2014 or 2015 due to major safety works. These locations will be assessed for whether there is still a need for ongoing speed enforcement following the road works at these locations. These locations are:

- Berry, Princes Highway
- Foxground, Princes Highway
- Terrigal, Terrigal Drive

The review also identified the 10 fixed speed camera locations with the highest number of infringements detected in 2014, excluding cameras located in high-risk locations, such as tunnels. The list is shown at the end of Appendix C.
Most of the 10 speed camera locations are on main roads with high traffic volumes. All of these locations were identified to be retained in the annual review, delivering crash and casualty reductions. All had high compliance rates with more than 99 per cent of drivers passing the cameras without being infringed for speeding.

The seven locations with fixed speed cameras in warning mode are not included in the fixed speed camera analysis. However a report on crash and infringement results since the camera locations began operating under the ' 3 strikes' warning letter program is available at Appendix $\mathbf{D}$.

### 7.3.1 Point-to-point speed cameras

The analysis of the point-to-point speed camera program is available at Appendix E.
There were 24 lengths of the point-to-point enforcement program rolled out by the end of 2014. However, it is too early to assess the performance of individual point-topoint enforcement lengths as two lengths were installed in 2010, 13 in 2011, five in 2012, two in 2013 and three installed in 2014. Only one point-to-point length, Great Western Highway between Meadow Flat and Raglan, has enforced for a full four year period (2011-2013).
A total of 1,581 speeding infringements were issued resulting in total fines of $\$ 0.69$ million at point-to-point lengths in 2014. Infringement data for average speed offences in point-to-point enforcement lengths shows a high level of compliance within the enforcement lengths and a low number of infringements. This is consistent with results in other point-to-point programs. Numerous studies have shown that point-topoint enforcement is typically associated with very high rates of compliance with posted speed limits even when traffic volume is high ${ }^{8}$. For example, rates of infringement associated with point-to-point enforcement (light and heavy vehicles) on the Hume Highway, Victoria have been reported at 1-2 per cent. ${ }^{9}$

### 7.3.2 Future of NSW speed camera programs

The NSW CRS will continue to annually review all individual speed cameras as well as the overall performance of speed camera programs as set out in the NSW Speed Camera Strategy. These reviews will be annually published to ensure that the programs remain transparent to the community.
The fixed speed camera program continues to provide positive road safety benefits to the locations where they are installed, and will be annually assessed to ensure they continue delivering a positive road safety benefit. The NSW CRS will review locations that do not show crash and/or casualty reductions, and will remove cameras at locations that are found to not deliver clear road safety benefits.
While it is too early to assess the safety benefit of the red-light speed, mobile speed and point-to-point speed camera programs, the early results from these programs are encouraging, with evidence of changes in driver behaviour. This is also reflected in an improvement in the road toll for 2014.

[^6]
## A. Appendix A: Analysis of the NSW mobile speed camera program

## A. 1 NSW Road toll data

In August 2011, the review of the NSW mobile speed camera program ${ }^{1}$ found that in the first year of operation there was a 19 per cent statistically significant reduction ( $p<0.001$ ) in fatalities throughout NSW since the re-introduction of mobile speed cameras (chi-square test of independence at 0.05 probability level).
In the year before mobile speed cameras (19 July 2009 - 18 July 2010) there were 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).

The ongoing impact of the mobile speed camera program is reflected in the 2014 road toll. There were 307 persons killed on NSW roads in 2014. The 2014 road toll result for NSW is a continuation of the significant improvements in the road toll over several decades. From a peak of 1,384 fatalities in 1978 the NSW road toll has reduced by more than 70 per cent to the 2014 figure.
The 2014 result represents the lowest annual figure since 1923 (with 231 fatalities). This is also 32 per cent lower than in 2009 (with 453 fatalities), before the reintroduction of the mobile speed camera in 2010.
Current NSW road toll levels are significant given that the population has more than tripled, the number of licence holders has increased nearly 50 fold and a more than sixty fold increase in registered motor vehicles since 1923. The 2014 fatality rate per population (4.1) is also the lowest since records began in 1908. However, speed continues to remain the biggest killer on NSW road, with 41 per cent of fatalities attributable to speed in 2014. More can be done to further drive reductions in the NSW road toll, and mobile speed cameras will continue to play an important role.

## A. 2 Speed related injuries and fatalities

The positive impact of the mobile speed camera program to date is also reflected in the reduction of speed-related fatalities and injuries. In 2014, there were 4,188 casualties from speed-related crashes, which is a reduction in speed-related casualties compared to 2009 results $(4,358)$, before the mobile speed camera program was reintroduced. Since the reintroduction of the mobile speed camera program, speed-related fatalities have decreased each year that the program has been in operation. In 2014, speed-related fatalities reduced by $39 \%$ when compared to 2009.

[^7]

Figure A1: Speed-related fatalities and injuries, 2009-2014

## A. 32014 Annual speed surveys

The results represent a summary of annual speed survey results from 2009-2014. Results are presented separately for light and heavy vehicles, and show:

- mean speed;
- 85 th 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 $10 \mathrm{~km} / \mathrm{h}$; and
- percentage exceeding the speed limit by more than $10 \mathrm{~km} / \mathrm{h}$.

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 2014 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 A1: Mean speed and 85th percentile speed survey results, 2009-2014

| Posted speed limit |  | Light vehicle mean speeds (km/h) |  |  |  |  |  | Light vehicle $85{ }^{\text {th }}$ percentile speeds (km/h) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| $40 \mathrm{~km} / \mathrm{h}$ school zone | 45.1 | 43.6 | 44.2 | 43.3 | 43.2 | 42.5 | 52.7 | 50.9 | 51.4 | 50.2 | 50.2 | 48.9 |
| $40 \mathrm{~km} / \mathrm{h}$ | 38.9 | 38.4 | 38.3 | 39.3 | 38.1 | 38.1 | 44.6 | 44.0 | 43.8 | 44.7 | 43.5 | 43.5 |
| $50 \mathrm{~km} / \mathrm{h}$ | 53.6 | 52.1 | 52.3 | 51.4 | 51.9 | 51.4 | 61.1 | 59.1 | 59.4 | 58.5 | 58.6 | 58.1 |
| 60km/h | 58.7 | 57.7 | 57.4 | 58.1 | 57.1 | 56.5 | 65.6 | 64.2 | 64.3 | 65.0 | 63.8 | 63.1 |
| $70 \mathrm{~km} / \mathrm{h}$ | 69.6 | 67.9 | 67.8 | 67.6 | 67.9 | 67.8 | 77.8 | 75.8 | 75.6 | 75.3 | 75.6 | 75.2 |
| $80 \mathrm{~km} / \mathrm{h}$ | 77.8 | 76.1 | 76.4 | 77.2 | 75.4 | 74.3 | 85.9 | 84.5 | 86.4 | 85.0 | 83.3 | 82.0 |
| $90 \mathrm{~km} / \mathrm{h}$ - small sample ^ | 88.1 | 91.1 | 90.9 | 86.5 | 86.9 | 86.3 | 96.7 | 99.0 | 99.2 | 95.2 | 95.0 | 93.9 |
| $100 \mathrm{~km} / \mathrm{h}$ | 98.8 | 98.6 | 99.1 | 98.4 | 97.2 | 98.1 | 106.5 | 106.2 | 106.7 | 106.0 | 104.7 | 105.2 |
| $110 \mathrm{~km} / \mathrm{h}$ | 109.9 | 108.8 | 109.2 | 109.8 | 107.9 | 108.3 | 118.0 | 116.6 | 116.7 | 117.2 | 115.6 | 115.3 |
| Posted speed limit | Heavy vehicle mean speeds (km/h) |  |  |  |  |  |  | Heavy vehicle $85^{\text {th }}$ percentile speeds (km/h) |  |  |  |  |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| $40 \mathrm{~km} / \mathrm{h}$ school zone | 41.9 | 41.2 | 42.4 | 40.8 | 41.0 | 40.6 | 48.3 | 47.1 | 49.2 | 46.4 | 46.5 | 45.8 |
| $40 \mathrm{~km} / \mathrm{h}$ | 38.6 | 37.7 | 37.3 | 39.1 | 37.3 | 37.5 | 44.2 | 42.7 | 42.4 | 44.9 | 42.5 | 42.1 |
| $50 \mathrm{~km} / \mathrm{h}$ | 53.2 | 51.8 | 51.2 | 50.3 | 50.2 | 50.5 | 60.3 | 58.6 | 58.1 | 57.2 | 56.5 | 56.8 |
| 60km/h | 56.4 | 56.2 | 55.8 | 57.2 | 55.3 | 54.9 | 63.6 | 63.2 | 63.0 | 65.0 | 62.6 | 62.0 |
| $70 \mathrm{~km} / \mathrm{h}$ | 66.1 | 65.4 | 64.9 | 64.2 | 65.0 | 64.9 | 75.5 | 74.4 | 73.4 | 72.9 | 73.6 | 73.8 |
| $80 \mathrm{~km} / \mathrm{h}$ | 76.3 | 72.0 | 72.9 | 75.5 | 71.9 | 74.4 | 89.6 | 81.6 | 81.9 | 83.9 | 80.8 | 84.4 |
| $90 \mathrm{~km} / \mathrm{h}$ - small sample ^ | 85.0 | 91.1 | 90.0 | 85.6 | 86.6 | 84.7 | 94.5 | 99.4 | 98.9 | 95.5 | 95.0 | 93.1 |
| $100 \mathrm{~km} / \mathrm{h}$ | 97.4 | 98.0 | 98.0 | 97.6 | 95.9 | 97.4 | 103.5 | 104.4 | 104.4 | 104.0 | 102.1 | 102.9 |
| $110 \mathrm{~km} / \mathrm{h}$ | 100.7 | 101.8 | 100.6 | 101.8 | 99.0 | 101.9 | 106.4 | 109.0 | 106.8 | 107.4 | 105.1 | 108.9 |
| $\wedge$ Small samples may result in greater fluctuations year to year. |  |  |  |  |  |  |  |  |  |  |  |  |

Table A2: Percentage of vehicles exceeding the speed limit speed survey results, 2009-2014

| Posted speed limit | Light vehicles exceeding the speed limit by up to 10 km/h (\%) |  |  |  |  |  | Light vehicles exceeding the speed limit by $10 \mathrm{~km} / \mathrm{h}$ or more (\%) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| $40 \mathrm{~km} / \mathrm{h}$ school zone | 46.4\% | 44.0\% | 45.1\% | 42.0\% | 43.4\% | 45.0\% | 23.0\% | 17.5\% | 19.7\% | 18.4\% | 17.0\% | 12.3\% |
| $40 \mathrm{~km} / \mathrm{h}$ | 30.2\% | 27.8\% | 27.2\% | 32.0\% | 26.6\% | 26.8\% | 4.5\% | 3.4\% | 3.7\% | 6.0\% | 3.4\% | 3.0\% |
| $50 \mathrm{~km} / \mathrm{h}$ | 48.8\% | 46.4\% | 46.6\% | 42.8\% | 43.3\% | 45.3\% | 16.8\% | 12.6\% | 13.2\% | 13.0\% | 14.1\% | 9.7\% |
| 60km/h | 32.3\% | 28.8\% | 28.2\% | 29.9\% | 25.9\% | 24.9\% | 7.3\% | 5.4\% | 5.8\% | 7.8\% | 6.3\% | 3.9\% |
| $70 \mathrm{~km} / \mathrm{h}$ | 35.9\% | 31.3\% | 30.2\% | 28.2\% | 29.5\% | 29.9\% | 10.4\% | 6.6\% | 6.3\% | 7.3\% | 8.2\% | 6.4\% |
| $80 \mathrm{~km} / \mathrm{h}$ | 29.8\% | 26.3\% | 26.1\% | 24.8\% | 21.1\% | 18.6\% | 8.8\% | 6.3\% | 6.6\% | 7.1\% | 6.2\% | 4.9\% |
| $90 \mathrm{~km} / \mathrm{h}$ - small sample ^ | 29.6\% | 38.0\% | 38.5\% | 22.9\% | 24.8\% | 24.5\% | 9.0\% | 11.8\% | 13.4\% | 10.0\% | 10.1\% | 6.7\% |
| $100 \mathrm{~km} / \mathrm{h}$ | 34.5\% | 32.2\% | 34.4\% | 31.0\% | 27.6\% | 31.1\% | 8.2\% | 9.0\% | 8.9\% | 9.4\% | 7.9\% | 6.7\% |
| $110 \mathrm{~km} / \mathrm{h}^{*}$ | 40.8\% | 37.5\% | 38.9\% | 41.2\% | 33.9\% | 34.1\% | 9.3\% | 6.4\% | 7.0\% | 11.4\% | 6.0\% | 5.4\% |
| Posted speed limit | Heavy vehicles exceeding the speed limit by up to 10 km/h (\%) |  |  |  |  |  | Heavy vehicles exceeding the speed limit by 10 km/h or more (\%) |  |  |  |  |  |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| $40 \mathrm{~km} / \mathrm{h}$ school zone | 42.2\% | 36.2\% | 43.3\% | 39.5\% | 39.7\% | 39.9\% | 10.1\% | 10.2\% | 12.6\% | 8.1\% | 2.6\% | 3.9\% |
| $40 \mathrm{~km} / \mathrm{h}$ | 26.6\% | 22.8\% | 21.0\% | 29.9\% | 21.0\% | 22.3\% | 5.4\% | 3.6\% | 3.0\% | 6.2\% | 7.1\% | 2.8\% |
| $50 \mathrm{~km} / \mathrm{h}$ | 45.6\% | 44.7\% | 42.5\% | 40.4\% | 38.3\% | 41.8\% | 16.7\% | 12.5\% | 10.7\% | 10.0\% | 7.8\% | 7.5\% |
| 60km/h | 26.7\% | 25.8\% | 25.4\% | 25.4\% | 22.7\% | 21.3\% | 5.0\% | 3.9\% | 4.5\% | 9.6\% | 4.1\% | 3.2\% |
| $70 \mathrm{~km} / \mathrm{h}$ | 28.6\% | 27.3\% | 23.7\% | 21.4\% | 24.1\% | 25.1\% | 5.7\% | 4.2\% | 3.5\% | 3.6\% | 3.9\% | 4.2\% |
| $80 \mathrm{~km} / \mathrm{h}$ | 23.6\% | 21.2\% | 23.2\% | 19.4\% | 18.2\% | 17.1\% | 9.8\% | 5.1\% | 5.9\% | 6.2\% | 4.0\% | 13.1\% |
| $90 \mathrm{~km} / \mathrm{h}$ - small sample ^ | 27.2\% | 41.3\% | 34.8\% | 22.6\% | 30.6\% | 23.5\% | 6.3\% | 14.0\% | 13.6\% | 11.2\% | 8.5\% | 4.8\% |
| $100 \mathrm{~km} / \mathrm{h}$ | 34.5\% | 34.1\% | 34.0\% | 33.4\% | 26.2\% | 32.1\% | 3.2\% | 4.8\% | 4.8\% | 5.8\% | 2.2\% | 2.7\% |
| $110 \mathrm{~km} / \mathrm{h}^{*}$ | 48.1\% | 39.8\% | 44.9\% | 56.7\% | 44.0\% | 40.0\% | 8.1\% | 12.9\% | 8.8\% | 10.3\% | 6.7\% | 11.7\% |
| $\wedge$ Small samples may result in greater fluctuations year to year. |  |  |  |  |  |  |  |  |  |  |  |  |
| *Note HV Speed Limit is $100 \mathrm{~km} / \mathrm{h}$ and results presented indicate the percentage of HVs exceeding $100 \mathrm{~km} / \mathrm{h}$ in this section. |  |  |  |  |  |  |  |  |  |  |  |  |

## A.3.1 Light vehicles

In 2014, light vehicle speed survey results indicate:

- $50 \mathrm{~km} / \mathrm{h}$ speed zones
o 45.3 per cent of drivers were travelling up to $10 \mathrm{~km} / \mathrm{h}$ above the posted speed limit, and a further 9.7 per cent were exceeding the speed limit by $10 \mathrm{~km} / \mathrm{h}$ or more.
o The 85th percentile speed was $58.1 \mathrm{~km} / \mathrm{h}$, the mean speed was 51.4 km/h.
- $100 \mathrm{~km} / \mathrm{h}$ speed zones
o 31.1 per cent of drivers were travelling up to $10 \mathrm{~km} / \mathrm{h}$ above the posted speed limit, and a further 6.7 per cent were exceeding the speed limit by $10 \mathrm{~km} / \mathrm{h}$ or more.
o The 85th percentile speed was $105.2 \mathrm{~km} / \mathrm{h}$, the mean speed was 98.1 km/h.


## A.3.2 Heavy vehicles

In 2014, heavy vehicle speed survey results indicate:

- $50 \mathrm{~km} / \mathrm{h}$ speed zones
o 41.8 per cent of drivers were travelling up to $10 \mathrm{~km} / \mathrm{h}$ above the posted speed limit, and a further 7.5 per cent were exceeding the speed limit by $10 \mathrm{~km} / \mathrm{h}$ or more.
o The 85th percentile speed was $56.8 \mathrm{~km} / \mathrm{h}$, the mean speed was 50.5 km/h.
- $100 \mathrm{~km} / \mathrm{h}$ speed zones
o 32.1 per cent of drivers were travelling up to $10 \mathrm{~km} / \mathrm{h}$ above the posted speed limit, and a further 2.7 per cent were exceeding the speed limit by $10 \mathrm{~km} / \mathrm{h}$ or more.
o The 85th percentile speed was $102.9 \mathrm{~km} / \mathrm{h}$, the mean speed was 97.4 $\mathrm{km} / \mathrm{h}$.


## A.3.3 Trends in speed survey results

Over the last six years the general trend has been a decrease in the proportion of light vehicles exceeding the speed limit across most speed zones. The below graph shows that there is a trend of increasing compliance to the speed limit across all speed zones. This includes a significant decrease in the proportion of vehicles exceeding the speed limit in 2010, coinciding with the introduction of mobile speed cameras and installation of red-light speed cameras.
The percentage of light vehicles exceeding the speed limit by more than $10 \mathrm{~km} / \mathrm{h}$ in 2014 has reduced in all speed zones compared to 2013, which builds on impressive results from previous years. The results show that in 2014 fewer light vehicles were exceeding the speed limit by more than $10 \mathrm{~km} / \mathrm{h}$ compared to all years from 2009 to 2013.

When looking at the percentage of light vehicles exceeding the speed limit by up to $10 \mathrm{~km} / \mathrm{h}$ in 2014, there has been a continued suppression of speeding when
comparing results from 2009 to 2011. However, there have been slight increases in some zones compared to 2012 and 2013.


Figure A2: Annual speed survey results, compliance rate (percentage of vehicles driving within the speed limit) by speed zone

The percentage of heavy vehicles exceeding the speed limit by up to $10 \mathrm{~km} / \mathrm{h}$ has increased in some speed zones compared to the previous year. However, the 2014 results still compare favourably compared to previous years. Significant reductions in heavy vehicle speeding by more than $10 \mathrm{~km} / \mathrm{h}$ over the speed limit have been maintained in 2014, achieving the lowest percentages over the entire five year period in $40 \mathrm{~km} / \mathrm{h}, 50 \mathrm{~km} / \mathrm{h}, 60 \mathrm{~km} / \mathrm{h}$ and $90 \mathrm{~km} / \mathrm{h}$ zones and maintaining a low level of speeding by more than $10 \mathrm{~km} / \mathrm{h}$ in $100 \mathrm{~km} / \mathrm{h}$ zones.

## A. 4 Mobile speed camera infringements

In 2014 there were a total of 55,467 infringements issued from mobile speed camera enforcement resulting in $\$ 10.54$ million of fines. The cost of conducting the mobile speed camera program in 2014 was $\$ 17.4$ million. The total number of infringements in 2014 increased four fold compared to 2013, however this increase was lower than expected as the total number of enforcement hours increased more than five fold from 11,106 hours of enforcement in 2013 to 61,256 in 2014.
The below graph depicting the mobile speed camera program infringement data and the number of enforcement hours per months shows that in 2014 there was a steady increase in infringements as the amount of enforcement per month increased until July, when the program reached 7,000 hours of enforcement for the month. Since then the number of infringements has decreased each month as motorists have changed their behaviour at the locations where mobile speed cameras enforce.


Figure A3: Speeding infringements issued and number of enforcement hours conducted by mobile speed cameras by month

Since the program commenced, the number of sites available for use and the number of sites used each month has increased over time as ongoing assessments to identify suitable enforcement sites are completed. The total number of approved sites is 640 with all selected sites published on the Centre for Road Safety website. 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 significant decrease in infringements from June 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.
The figure 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 2014 the compliance rate was $99.79 \%$. This high rate of compliance has remained consistent since 2010 when the program was reintroduced.


Figure A4: Compliance rate of vehicles at mobile speed camera locations
CRS has developed and implemented a speed camera public education campaign that has supported the rollout of the mobile speed camera program. CRS evidence shows that enforcement and strong public education campaigns change driver behaviour and help prevent speed-related crashes and trauma through awareness of enforcement.

## A. 5 Review of mobile speed camera locations

CRS has identified 26 of the 640 approved mobile speed camera locations that are no longer providing a road safety benefit. These locations were previously used by the Police and are no longer operationally useful because there are no suitable enforcement sites. These locations are listed in the table below and will be decommissioned.

Table A3: Mobile speed camera locations to be decommissioned

| Suburb/Town | Road |
| :--- | :--- |
| Annandale, Camperdown, Leichhardt, Petersham, Stanmore | Parramatta Road |
| Ashfield, Haberfield, Summer Hill | Parramatta Road |
| Auburn, Clyde, Granville, Harris Park | M4 Motorway |
| Beaumont Hills, Kellyville, Kellyville Ridge, Stanhope Gardens | Windsor Road |
| Belford, Branxton, East Branxton, Lower Belford | New England Highway |
| Beresfield | John Renshaw Drive |
| Burwood, Concord, Croydon, Five Dock | Parramatta Road |
| Burwood, Concord, Homebush, North Strathfield, Strathfield | Parramatta Road |
| Camperdown, Chippendale, Forest Lodge, Glebe, Ultimo | Parramatta Road |
| Capertree, Round Swamp | Castlereagh Highway |
| Cartwright, Hinchinbrook, Hoxton Park, Miller, Prestons | Hoxton Park Road |
| Cassilis, Uarbry | Golden Highway |
| Centennial Park, Woollahra | Oxford Street |
| Coffs Harbour, Korora, Moonee Beach, Sapphire Beach | Pacific Highway |


| Suburb/Town | Road |
| :--- | :--- |
| Corowa | Redlands Road |
| Cremorne, Mosman, Neutral Bay | Military Road |
| Dean Park, Doonside, Glendenning, Oakhurst, Quakers Hill | Richmond Road |
| Dumaresq Island, Glenthorne, Pampoolah | Pacific Highway |
| East Gosford, Point Frederick | York Street |
| East Maitland, Maitland, South Maitland | New England Highway |
| Finley, Tocumwal | Newell Highway |
| Gateshead | Pacific Highway |
| Hartley, South Bowenfels | Great Western Hwy |
| Kingsvale, Wombat, Young | Back Creek Road |
| Marchmont, Murrumbateman | Barton Highway |
| Monak | Sturt Highway |

## A. 6 Summary

Overall, the trend in road fatalities and annual speed surveys demonstrates that the current mobile speed camera program continues to deliver positive road safety benefits. The general decrease in speeding observed in the annual speed surveys, over the past five years, provides evidence that the general deterrence provided by mobile speed cameras can be enhanced by a larger program.
With a larger program, there can be greater coverage of the road network at various times and locations and, like police enforcement, this mobility increases the deterrence effect due to the unpredictability of the exact location and time of speed enforcement.

By the end of 2014, the mobile speed camera program expanded to include 45 marked vehicles operating across 640 locations over approximately 7,000 hours of enforcement per month. This way forward aims to increase the general deterrence of speeding, which is expected to deliver continued reductions in crashes and casualties, and in vehicles exceeding the speed limit.
As the program has expanded there has been an increase in the volume of infringements consistent with the increase in enforcement hours per month over time. However, in the months following the increased level of enforcement, the rate of infringement per hour of enforcement has stabilised and returned to a downward trend as driver behaviour changes.

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

## B. 1 Overview of red-light speed camera locations

|  | Location | Road |
| :---: | :---: | :---: |
| 1 | Adamstown | Park Avenue at Northcott Drive |
| 2 | Alexandria | Collins Street at O'Riordan Street |
| 3 | Alexandria / Waterloo | McEvoy Street at Botany Road |
| 4 | Ashfield | Frederick Street at Hume Highway |
| 5 | Auburn | Chisholm Road at Mona Street |
| 6 | Auburn | Rawson Street at Station Road |
| 7 | Auburn | Silverwater Road at M4 westbound on-ramp |
| 8 | Bankstown | Edgar Street at Marion Street |
| 9 | Bankstown | Meredith Street at Hume Highway (school zone) |
| 10 | Bankstown | Stacey Street at Hume Highway |
| 11 | Baulkham Hills | Windsor Road at Old Northern Road / Seven Hills Road |
| 12 | Belfield | Burwood Road at Punchbowl Road |
| 13 | Bexley | Forest Road at Harrow Road |
| 14 | Bexley | Harrow Road at Watkin Street |
| 15 | Blacktown | Bungarribee Road at Balmoral Street |
| 16 | Blacktown | Great Western Highway at Reservoir Road |
| 17 | Blacktown | Lancaster Street at Kildare Street (school zone) |
| 18 | Blacktown | Newton Road at Flushcombe Road (school zone) |
| 19 | Blacktown | Sunnyholt Road at Main Street |
| 20 | Blacktown | Third Avenue at Prince Street |
| 21 | Bondi Junction | Old South Head Road at Bondi Road |
| 22 | Bradbury | Moore Oxley Bypass at The Parkway |
| 23 | Burwood / Concord | Parramatta Road at Burwood Road |
| 24 | Cabramatta | Cumberland Highway at Cabramatta Road West |
| 25 | Cabramatta | Cumberland Highway at St Johns Road |
| 26 | Campbelltown | Kellicar Road at Narellan Road |
| 27 | Campbelltown | Moore-Oxley Bypass at Broughton Street |
| 28 | Campsie | Canterbury Road at Bexley Road |
| 29 | Campsie | Canterbury Road at Thorncraft Parade |
| 30 | Canley Vale | Sackville Street at Canley Vale Road |
| 31 | Caringbah | The Kingsway at Gannons Road |
| 32 | Castle Hill | Pennant Street at Castle Street |
| 33 | Castle Hill | Showground Road at Victoria Avenue |
| 34 | Chester Hill / Sefton | Waldron Road at Hector Street |
| 35 | Concord | Broughton Street at Crane Street |
| 36 | Crows Nest | Pacific Highway at Hume Street |
| 37 | Croydon Park | Georges River Road at Croydon Avenue |
| 38 | Darlinghurst | Craigend Street at McLachlan Avenue |
| 39 | Darlinghurst | Oxford Street at Crown Street |
| 40 | Darlinghurst | William Street at Crown Street |
| 41 | Dean Park | Richmond Road at M7 Motorway southbound on-ramp |
| 42 | Dee Why | Pittwater Road at Harbord Road |
| 43 | Eastwood | Blaxland Road at May Street |
| 44 | Eastwood | Rutledge Street at Shaftsbury Road (school zone) |
| 45 | Epping | Carlingford Road at Rawson Street |
| 46 | Ermington | Victoria Road at Spurway Street |
| 47 | Fairfield | Hamilton Road at The Boulevarde |
| 48 | Fairfield | The Horsley Drive at Polding Street |
| 49 | Figtree | Princes Highway at O'Briens Road |
| 50 | Five Dock | Fairlight Street at Ramsay Road |
| 51 | Five Dock | Parramatta Road at Arlington Street |
| 52 | Glenwood | Old Windsor Road at Sunnyholt Road |
| 53 | Granville | Parramatta Road at Good Street |
| 54 | Granville | Woodville Road at M4 westbound on-ramp |
| 55 | Guildford | Woodville Road at Guildford Road |
| 56 | Haberfield | Dobroyd Parade at Mortley Avenue |
| 57 | Haberfield | Parramatta Road at Sloane Street |
| 58 | Haberfield | Ramsay Street at Wattle Street |
| 59 | Hamilton | Tudor Street at Beaumont Street |
| 60 | Hamilton East | Pacific Highway at Parry Street |
| 61 | Haymarket | George Street at Pitt Street / Quay Street |
| 62 | Hunters Hill | Ryde Road at Pittwater Road |
| 63 | Kensington | Anzac Parade at Todman Avenue |
| 64 | Kingsgrove | Bexley Road at William Street |
| 65 | Kingsgrove | Kingsgrove Road at Forsyth Street |
| 66 | Kirrawee | Acacia Road at President Avenue |
| 67 | Kogarah Bay | Park Road at Princes Highway |
| 68 | Lakemba | Punchbowl Road at Wangee Road |
| 69 | Lambton | Griffiths Road at Turton Road |


|  | Location | Road |
| :---: | :---: | :---: |
| 70 | Lane Cove | Epping Road at Centennial Avenue |
| 71 | Lansdowne / Villawood | Henry Lawson Drive / Woodville Road at Hume Highway |
| 72 | Leichhardt | City West Link at James Street |
| 73 | Lidcombe | Olympic Drive at Vaughan Street |
| 74 | Liverpool | Hume Highway at Elizabeth Drive |
| 75 | Liverpool | Memorial Avenue at Bathurst Street |
| 76 | Maroubra | Anzac Parade at Boyce Road |
| 77 | Marrickville | Sydenham Road at Victoria Road |
| 78 | Mascot | O'Riordan Street at Coward Street |
| 79 | Mascot | O'Riordan Street at Gardeners Road |
| 80 | Mayfield West | Pacific Highway at Maud Street |
| 81 | Mays Hill | Great Western Highway at Coleman Street / Hawkesbury Road |
| 82 | Merrylands West | Merrylands Road at Sherwood Road |
| 83 | Milperra | Newbridge Road at Henry Lawson Drive |
| 84 | Miranda | Kingsway at Port Hacking Road |
| 85 | Moore Park | Anzac Parade at Lang Road |
| 86 | Moore Park / Paddington | Anzac Parade / Flinders Street at Moore Park Road |
| 87 | Moorebank | Newbridge Road at Stockton Avenue |
| 88 | Mosman | Military Road at Cowles Road |
| 89 | Mount Druitt | Great Western Highway at Carlisle Avenue |
| 90 | Naremburn | Willoughby Road at Chandos Street |
| 91 | Neutral Bay | Falcon Street at Merlin Street |
| 92 | North Ryde | Cox's Road at Lane Cove Road (school zone) |
| 93 | North Ryde | Wicks Road at Epping Road |
| 94 | Northmead | Briens Road at Redbank Road |
| 95 | Northmead | Old Windsor Road at Cumberland Highway |
| 96 | Paddington | Moore Park Road at Lang Road |
| 97 | Paddington / Surry Hills | South Dowling Street at Fitzroy Street / Moore Park Road |
| 98 | Parramatta | Macquarie Street at Marsden Street |
| 99 | Parramatta | O'Connell Street at Argyle Street |
| 100 | Parramatta | Victoria Road at Church Street |
| 101 | Pennant Hills | Pennant Hills Road at Beecroft Road (school zone) |
| 102 | Petersham | Gordon Street at New Canterbury Road |
| 103 | Petersham | Parramatta Road at West Street |
| 104 | Ramsgate | Rocky Point Road at Ramsgate Road |
| 105 | Randwick | Alison Street at Avoca Street |
| 106 | Randwick | Avoca Street at Darley Road |
| 107 | Redfern | Chalmers Street at Cleveland Street (school zone) |
| 108 | Richmond | March Street at East Market Street |
| 109 | Rockdale | Bestic Street at West Botany Street |
| 110 | Rockdale | Princes Highway at Bay Street / The Seven Ways |
| 111 | Roselands | King Georges Road at Moorefields Road |
| 112 | Roselands / Wiley Park | Canterbury Road at King Georges Road |
| 113 | Rozelle | Victoria Road at Evans Street |
| 114 | Rozelle | Wellington Street at Victoria Road |
| 115 | Ryde | Victoria Road at Devlin Street |
| 116 | Seven Hills | Abbott Road at Station Road |
| 117 | Silverwater | Silverwater Road at M4 eastbound on-ramp |
| 118 | Smithfield | Cumberland Highway at The Horsley Drive |
| 119 | Smithfield | The Horsley Drive at Gipps Street |
| 120 | Smithfield | Victoria Street at Hassall Street |
| 121 | South Penrith | Parker Street at Jamison Road |
| 122 | South Wentworthville | Cumberland Highway at Old Prospect Road |
| 123 | Spring Hill | Springhill Road at Masters Road |
| 124 | St Marys | Great Western Highway at Charles Hackett Drive / Pages Road |
| 125 | St Marys | Mamre Road at Saddington Street (school zone) |
| 126 | Strathfield | Arthur Street at Centenary Drive |
| 127 | Surry Hills | Cleveland Street at South Dowling Street |
| 128 | Sydney | Elizabeth Street at Park Street |
| 129 | Thornleigh | Pennant Hills Road at Parkes Street |
| 130 | Ultimo | Wattle Street at William Henry Street |
| 131 | Unanderra | Princes Highway at Five Islands Road |
| 132 | Waitara | Pacific Highway at Romsey Street (school zone) |
| 133 | Wallsend | Thomas Street at Metcalfe Street |
| 134 | Warrawong | King Street (Grand Pacific Drive) at Cowper Street |
| 135 | Warwick Farm | Hume Highway at Bigge Street |
| 136 | Wentworthville | Great Western Highway at Station Street |
| 137 | West Pennant Hills | Pennant Hills Road at Eaton Road |
| 138 | West Pymble | Ryde Road at Lady Game Drive |
| 139 | Wiley Park | The Boulevarde at King Georges Road (school zone) |
| 140 | Windang | Windang Road at Boronia Avenue |
| 141 | Wollongong | Corrimal Street at Burelli Street |
| 142 | Wollongong | Gladstone Avenue at Princes Highway |
| 143 | Woollahra | Queen Street at Ocean Street |
| 144 | Yagoona | Rookwood Road at Brunker Road |
| 145 | Zetland | Bourke Street at Botany Road |

## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 3 years and 222 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 12 | 1 | $\downarrow 88 \%$ |
| Minor / Other Injuries | 9 | 1 | $\downarrow 85 \%$ |
| Total Casualties: | 25 | 2 | $\downarrow 89 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 0 | 2 | $\downarrow 84 \%$ |
| Adjacent Casualty Crashes | 8 | 0 | - |
| Right Through Casualty Crashes | 5 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 17 | $\downarrow 45$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 21 February 2011
2 Ending 31 December 2014
${ }^{3}$ 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


Month-Year


## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 1 year and 70 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 1 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 9 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 7 | 0 | - |
| Casualty Crashes | 3 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 1 | $\downarrow 100 \%$ |  |
| Rear End Casualty Crashes |  | 0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 23 July 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 ${ }^{1}$ | 4 years and 184 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Serious Injuries | 3 | 3 | $\uparrow 11 \%$ |
| Moderate Injuries | 10 | 8 | $\downarrow 11 \%$ |
| Minor / Other Injuries | 7 | 6 | $\downarrow$ \% |
| Total Casualties: | 22 | 17 | $\downarrow 14 \%$ |
| Pedestrian Casualties | 6 | 1 | $\downarrow$ 81\% |
| Casualty Crashes | 17 | 13 | $\downarrow 15 \%$ |
| Adjacent Casualty Crashes | 3 | 9 | $\uparrow$ 233\% |
| Right Through Casualty Crashes | 3 | 1 | $\downarrow$ 63\% |
| Rear End Casualty Crashes | 4 | 1 | $\downarrow 72 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 31 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 290 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 2 | $\uparrow 32 \%$ |
| Moderate Injuries | 4 | 5 | $\uparrow 65 \%$ |
| Minor / Other Injuries | 8 | 7 | $\uparrow 15 \%$ |
| Total Casualties: | 14 | 14 | $\uparrow 32 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 2 | 110 | $\uparrow 20 \%$ |
| Adjacent Casualty Crashes | 3 | 2 | $\downarrow 34 \%$ |
| Right Through Casualty Crashes | 4 | 5 | $\downarrow 12 \%$ |
| Rear End Casualty Crashes | $\uparrow 65 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 December 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 308 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 8 | 0 | - |
| Moderate Injuries | 6 | 1 | $\downarrow 66 \%$ |
| Minor / Other Injuries | 5 | 1 | $\downarrow 55 \%$ |
| Total Casualties: | 19 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 0 | 2 | $\downarrow 71 \%$ |
| Casualty Crashes | 14 | 0 | - |
| Adjacent Casualty Crashes | 8 | 1 | $\downarrow 61 \%$ |
| Right Through Casualty Crashes | 2 | 1 | $\downarrow 66 \%$ |
| Rear End Casualty Crashes | 1 | 0 | $\downarrow 36 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 November 2012 2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 159 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 14 | 1 |
| Moderate Injuries | 4 | 0 |
| Minor / Other Injuries | 5 | 0 |
| Total Casualties: | 23 | 1 |
| Pedestrian Casualties | 9 | 1 |
| Casualty Crashes | 20 | 1 |
| Adjacent Casualty Crashes | 9 | 0 |
| Right Through Casualty Crashes | 0 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 April 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 168 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 4 | 0 | - |
| Moderate Injuries | 9 | 1 | $\downarrow 72 \%$ |
| Minor / Other Injuries | 20 | 4 | $\downarrow 50 \%$ |
| Total Casualties: | 33 | 4 | $\downarrow 78 \%$ |
| Pedestrian Casualties | 0 | 9 | $\downarrow 69 \%$ |
| Casualty Crashes | 27 | 0 | - |
| Adjacent Casualty Crashes | 3 | 6 | $\downarrow 75 \%$ |
| Right Through Casualty Crashes | 3 | $4300 \%$ |  |
| Rear End Casualty Crashes | 13 | 1 | $\downarrow 49 \%$ |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 April 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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.



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 126 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 1 | $\uparrow 86 \%$ |
| Moderate Injuries | 9 | 2 | $\downarrow 17 \%$ |
| Minor / Other Injuries | 9 | 1 | $\downarrow 59 \%$ |
| Total Casualties: | 20 | 4 | $\downarrow 26 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 14 | 3 | $\downarrow 20 \%$ |
| Adjacent Casualty Crashes | 2 | 2 | $\downarrow 38 \%$ |
| Right Through Casualty Crashes | 3 | 0 | $\downarrow 272 \%$ |
| Rear End Casualty Crashes |  | $100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 16 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 8 | 4 | $\downarrow$ 38\% |
| Moderate Injuries | 10 | 5 | $\downarrow$ 38\% |
| Minor / Other Injuries | 5 | 14 | $\uparrow 246 \%$ |
| Total Casualties: | 23 | 23 | $\uparrow$ 24\% |
| Pedestrian Casualties | 2 | 3 | $\uparrow 85 \%$ |
| Casualty Crashes | 17 | 16 | $\uparrow 16 \%$ |
| Adjacent Casualty Crashes | 3 | 1 | $\downarrow$ 59\% |
| Right Through Casualty Crashes | 5 | 11 | $\uparrow 172 \%$ |
| Rear End Casualty Crashes | 7 | 2 | $\downarrow$ 65\% |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010
2 Ending 31 December 2014
${ }^{3}$ 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.


## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 255 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 4 | 0 | - |
| Moderate Injuries | 11 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 23 | 3 | $\uparrow 11 \%$ |
| Pedestrian Casualties | 0 | 3 | $\downarrow 62 \%$ |
| Casualty Crashes | 18 | 0 | - |
| Adjacent Casualty Crashes | 6 | 0 | $\downarrow 51 \%$ |
| Right Through Casualty Crashes | 7 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\downarrow 100 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 19 January 2013
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 4 years and 120 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 4 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 3 | 3 | $\downarrow 13 \%$ |
| Minor / Other Injuries | 17 | 1 | $\downarrow 62 \%$ |
| Total Casualties: | 25 | 1 | $\downarrow 93 \%$ |
| Pedestrian Casualties | 22 | 5 | $\downarrow 77 \%$ |
| Casualty Crashes | 2 | 4 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 2 | 1 | $\downarrow 79 \%$ |
| Right Through Casualty Crashes | 7 | 1 | $\downarrow 42 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 42 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 3 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 70 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 1 | 0 | - |
| Moderate Injuries | 12 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 10 | 1 | $\downarrow 65 \%$ |
| Total Casualties: | 23 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 7 | 1 | $\downarrow 82 \%$ |
| Casualty Crashes | 14 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 4 | 0 | $\downarrow 70 \%$ |
| Right Through Casualty Crashes | 0 | 10 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 4 | 1 | Increase |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 23 July 2013
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 185 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 2 | 0 | - |
| Moderate Injuries | 6 | 5 | $\uparrow 256 \%$ |
| Minor / Other Injuries | 10 | 2 | $\downarrow 52 \%$ |
| Total Casualties: | 18 | 2 | $\downarrow 71 \%$ |
| Pedestrian Casualties | 1 | 9 | $\downarrow 29 \%$ |
| Casualty Crashes | 16 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 4 | 5 | $\downarrow 55 \%$ |
| Right Through Casualty Crashes | 7 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\downarrow 29 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 159 days after <br> installation $^{2}$ |
| Serious Injuries | 8 | 0 |
| Moderate Injuries | 7 | 0 |
| Minor / Other Injuries | 8 | 0 |
| Total Casualties: | 23 | 1 |
| Pedestrian Casualties | 2 | 1 |
| Casualty Crashes | 16 | 0 |
| Adjacent Casualty Crashes | 5 | 1 |
| Right Through Casualty Crashes | 5 | 1 |
| Rear End Casualty Crashes | 2 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 April 2014
${ }^{2}$ Ending 31 December 2014


Infringements at enforced intersection



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 109 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 9 | $\uparrow 162 \%$ |
| Moderate Injuries | 8 | 1 | $\downarrow 85 \%$ |
| Minor / Other Injuries | 11 | 9 | $\downarrow 5 \%$ |
| Total Casualties: | 23 | 19 | $\downarrow 4 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 18 | 13 | $\downarrow 16 \%$ |
| Adjacent Casualty Crashes | 6 | 1 | $\downarrow 81 \%$ |
| Right Through Casualty Crashes | 6 | 6 | $\uparrow 16 \%$ |
| Rear End Casualty Crashes | 5 | 5 | $\uparrow 16 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 14 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 16 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 9 | 7 | $\downarrow 4 \%$ |
| Moderate Injuries | 9 | 1 | $\downarrow 86 \%$ |
| Minor / Other Injuries | 10 | 4 | $\downarrow 51 \%$ |
| Total Casualties: | 28 | 12 | $\downarrow 47 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 18 | 8 | $\downarrow 45 \%$ |
| Adjacent Casualty Crashes | 3 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 6 | 3 | $\downarrow 75 \%$ |
| Rear End Casualty Crashes | 5 | $\downarrow 38 \%$ |  |

${ }^{1}$ Ending 348 days before the start of the warning letter period, 1 January 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 50 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 6 | 1 | $\downarrow 80 \%$ |
| Minor / Other Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 15 | 1 | $\downarrow 92 \%$ |
| Pedestrian Casualties | 2 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 11 | 1 | $\downarrow 89 \%$ |
| Adjacent Casualty Crashes | 3 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 3 | 0 | $\uparrow 21 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 85 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 3 | $\uparrow 77 \%$ |
| Moderate Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 9 | 6 | $\downarrow 21 \%$ |
| Total Casualties: | 13 | 9 | $\downarrow 18 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 2 | 6 | $\downarrow 36 \%$ |
| Adjacent Casualty Crashes | 6 | 2 | $\uparrow 18 \%$ |
| Right Through Casualty Crashes | 2 | 2 | $\downarrow 61 \%$ |
| Rear End Casualty Crashes | 11 | $\downarrow 41 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 8 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 50 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 5 | $\downarrow 14 \%$ |
| Moderate Injuries | 6 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 3 | 2 | $\downarrow 19 \%$ |
| Total Casualties: | 16 | 7 | $\downarrow 47 \%$ |
| Pedestrian Casualties | 8 | 1 | $\downarrow 85 \%$ |
| Casualty Crashes | 16 | 6 | $\downarrow 55 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 1 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\downarrow 40 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 159 days after <br> installation $^{2}$ |
| Serious Injuries | 13 | 0 |
| Moderate Injuries | 8 | 1 |
| Minor / Other Injuries | 9 | 0 |
| Total Casualties: | 30 | 0 |
| Pedestrian Casualties | 9 | 1 |
| Casualty Crashes | 23 | 0 |
| Adjacent Casualty Crashes | 3 | 1 |
| Right Through Casualty Crashes | 7 | 1 |
| Rear End Casualty Crashes | 4 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 April 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 187 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 8 | 0 | - |
| Moderate Injuries | 0 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 6 | 1 | Increase |
| Total Casualties: | 14 | 5 | $\uparrow 19 \%$ |
| Pedestrian Casualties | 2 | 6 | $\downarrow 39 \%$ |
| Casualty Crashes | 12 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 6 | 6 | $\downarrow 29 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 53 \%$ |
| Rear End Casualty Crashes | 0 | 3 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 74 days <br> after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 4 | 6 | $\uparrow 524 \%$ |
| Minor / Other Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 9 | 6 | $\uparrow 177 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 7 | 3 | $\uparrow 78 \%$ |
| Adjacent Casualty Crashes | 1 | 2 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 1 | 1 | $\uparrow 108 \%$ |
| Rear End Casualty Crashes | 4 |  | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 19 July 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation | 4 years and 116 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 5 | 2 | $\downarrow 54 \%$ |
| Moderate Injuries | 6 | 3 | $\downarrow 42 \%$ |
| Minor / Other Injuries | 8 | 5 | $\downarrow 28 \%$ |
| Total Casualties: | 19 | 10 | $\downarrow 39 \%$ |
| Pedestrian Casualties | 3 | 1 | $\downarrow 61 \%$ |
| Casualty Crashes | 5 | 8 | $\downarrow 34 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | $\downarrow 77 \%$ |
| Right Through Casualty Crashes | 4 | 5 | - |
| Rear End Casualty Crashes | 14 | $\uparrow 45 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 7 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation $^{1}$ | 4 years and 190 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 9 | 5 | $\downarrow 39 \%$ |
| Moderate Injuries | 11 | 19 | $\uparrow 91 \%$ |
| Minor / Other Injuries | 13 | 9 | $\downarrow 23 \%$ |
| Total Casualties: | 33 | 33 | $\uparrow 11 \%$ |
| Pedestrian Casualties | 2 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 28 | 26 | $\uparrow 3 \%$ |
| Adjacent Casualty Crashes | 11 | 1 | $\downarrow 63 \%$ |
| Right Through Casualty Crashes | 7 | 11 | $\uparrow 11 \%$ |
| Rear End Casualty Crashes | 10 | $\uparrow 58 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far are encouraging, an assessment of effectiveness of individual red-light speed camera locations that have been operational for five years or more will be made in future performance reviews of speed cameras.
- 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 <br> before installation | 5 years after <br> installation $^{2}$ | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 15 | 11 | $\downarrow 31 \%$ |
| Minor / Other Injuries | 8 | 7 | $\downarrow 18 \%$ |
| Total Casualties: | 27 | 18 | $\downarrow 37 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 18 | 16 | $\downarrow 16 \%$ |
| Adjacent Casualty Crashes | 7 | 2 | $\uparrow 88 \%$ |
| Right Through Casualty Crashes | 5 | 2 | $\downarrow 73 \%$ |
| Rear End Casualty Crashes | 1 | $\uparrow 70 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 18 September 2009
2 Ending 18 December 2014
${ }^{3}$ 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




## 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.
- While results to date reveal a significant decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation $^{1}$ | 3 years and 236 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 1 | $\downarrow 31 \%$ |
| Moderate Injuries | 27 | 2 | $\downarrow 90 \%$ |
| Minor / Other Injuries | 16 | 2 | $\downarrow 83 \%$ |
| Total Casualties: | 45 | 5 | $\downarrow 85 \%$ |
| Pedestrian Casualties | 6 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 28 | 4 | $\downarrow 80 \%$ |
| Adjacent Casualty Crashes | 3 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 5 | 1 | $\downarrow 85 \%$ |
| Rear End Casualty Crashes | 9 | $\downarrow 18 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 7 February 2011
2 Ending 31 December 2014
${ }^{3}$ 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


Month-Year


## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation | 4 years and 190 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Serious Injuries | 4 | 4 | $\uparrow 11 \%$ |
| Moderate Injuries | 16 | 6 | $\downarrow 59 \%$ |
| Minor / Other Injuries | 19 | 2 | $\downarrow 88 \%$ |
| Total Casualties: | 40 | 12 | $\downarrow 67 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 21 | 8 | $\downarrow 58 \%$ |
| Adjacent Casualty Crashes | 4 | 10 | $\downarrow 72 \%$ |
| Right Through Casualty Crashes | 6 | 3 | $\downarrow 56 \%$ |
| Rear End Casualty Crashes | 10 | $\downarrow 5 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 77 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 8 | 0 | - |
| Moderate Injuries | 10 | 8 | $\uparrow 19 \%$ |
| Minor / Other Injuries | 4 | 2 | $\downarrow 76 \%$ |
| Total Casualties: | 22 | 1 | $\downarrow 70 \%$ |
| Pedestrian Casualties | 13 | 11 | $\downarrow 41 \%$ |
| Casualty Crashes | 0 | 3 | $\uparrow 256 \%$ |
| Adjacent Casualty Crashes | 5 | 10 | $\downarrow 9 \%$ |
| Right Through Casualty Crashes | 3 | 3 | - |
| Rear End Casualty Crashes | 1 | $\downarrow 29 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 269 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 5 | 0 | - |
| Moderate Injuries | 11 | 1 | $\downarrow 42 \%$ |
| Minor / Other Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 18 | 2 | $\uparrow 188 \%$ |
| Pedestrian Casualties | 3 | 3 | $\downarrow 52 \%$ |
| Casualty Crashes | 13 | 1 | $\downarrow 4 \%$ |
| Adjacent Casualty Crashes | 5 | 1 | $\downarrow 33 \%$ |
| Right Through Casualty Crashes | 4 | 1 | $\downarrow 42 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow$ | $\downarrow 28 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 5 January 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 267 <br> days after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 1 | $\uparrow 34 \%$ |
| Moderate Injuries | 5 | 2 | $\downarrow 46 \%$ |
| Minor / Other Injuries | 3 | 3 | $\uparrow 34 \%$ |
| Total Casualties: | 9 | 6 | $\downarrow 11 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 7 | 2 | $\downarrow 4 \%$ |
| Adjacent Casualty Crashes | 3 | 2 | $\uparrow 168 \%$ |
| Right Through Casualty Crashes | 2 | $\downarrow 11 \%$ |  |
| Rear End Casualty Crashes | 1 | $\downarrow 33 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 7 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 93 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 6 | 4 | $\downarrow$ 22\% |
| Moderate Injuries | 20 | 2 | $\downarrow$ 88\% |
| Minor / Other Injuries | 5 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 31 | 6 | $\downarrow 77 \%$ |
| Pedestrian Casualties | 3 | 1 | $\downarrow$ 61\% |
| Casualty Crashes | 22 | 6 | $\downarrow$ 68\% |
| Adjacent Casualty Crashes | 6 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 8 | 2 | $\downarrow 71 \%$ |
| Rear End Casualty Crashes | 3 | 1 | $\downarrow 61 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 141 days after <br> installation $^{2}$ |
| Serious Injuries | 4 | 0 |
| Moderate Injuries | 2 | 0 |
| Minor / Other Injuries | 5 | 0 |
| Total Casualties: | 11 | 0 |
| Pedestrian Casualties | 0 | 0 |
| Casualty Crashes | 7 | 0 |
| Adjacent Casualty Crashes | 1 | 0 |
| Right Through Casualty Crashes | 4 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 13 May 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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 February 2010.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 305 days <br> before installation | 4 years and 333 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 3 | 3 | $\downarrow 2 \%$ |
| Minor / Other Injuries | 11 | 7 | $\downarrow 37 \%$ |
| Total Casualties: | 17 | 10 | $\downarrow 42 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 14 | 7 | $\downarrow 51 \%$ |
| Adjacent Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 6 | 3 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 51 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 2 November 2009 2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 161 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 7 | 0 | - |
| Moderate Injuries | 9 | 3 | $\downarrow 52 \%$ |
| Minor / Other Injuries | 5 | 8 | $\downarrow 0 \%$ |
| Total Casualties: | 21 | 3 | $\downarrow 32 \%$ |
| Pedestrian Casualties | 17 | 14 | $\downarrow 25 \%$ |
| Casualty Crashes | 5 | 10 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 10 | 1 | $\downarrow 34 \%$ |
| Right Through Casualty Crashes | 0 | 6 | $\downarrow 7 \%$ |
| Rear End Casualty Crashes |  | 0 | - |

## Infringements at enforced intersection

1 Ending 91 days before the start of the warning letter period, 23 April 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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.




## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 277 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 6 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 12 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 4 | 1 | $\downarrow 29 \%$ |
| Total Casualties: | 22 | 1 | $\downarrow 87 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 14 | 1 | $\downarrow 80 \%$ |
| Adjacent Casualty Crashes | 12 | 0 | $\downarrow 76 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | 0 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 December 2012
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 257 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Serious Injuries | 1 | 3 | $\uparrow 305 \%$ |
| Moderate Injuries | 1 | 2 | $\uparrow 170 \%$ |
| Minor / Other Injuries | 4 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 7 | 5 | $\downarrow 4 \%$ |
| Pedestrian Casualties | 3 | 2 | $\downarrow 10 \%$ |
| Casualty Crashes | 6 | 5 | $\uparrow 12 \%$ |
| Adjacent Casualty Crashes | 1 | 1 | $\uparrow 35 \%$ |
| Right Through Casualty Crashes | 2 | 0 | Increase |
| Rear End Casualty Crashes | 1 | $\downarrow 100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 17 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 126 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 3 | 0 | - |
| Moderate Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 5 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 11 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 3 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 11 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 5 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\downarrow$ | 0 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 126 <br> days after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 19 | 7 | $\downarrow 58 \%$ |
| Moderate Injuries | 9 | 10 | $\uparrow 28 \%$ |
| Minor / Other Injuries | 30 | 10 | $\downarrow 62 \%$ |
| Total Casualties: | 58 | 27 | $\downarrow 46 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 40 | 19 | $\downarrow 45 \%$ |
| Adjacent Casualty Crashes | 32 | 13 | $\downarrow 53 \%$ |
| Right Through Casualty Crashes | 0 | 0 | 1 |
| Rear End Casualty Crashes | 2 |  | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## Darlinghurst - Oxford Street at Crown Street

- There is one camera at this intersection.
- The camera at the intersection of Oxford Street and Crown Street commenced issuing warning letters in September 2014.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 92 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 11 | 1 |
| Moderate Injuries | 17 | 0 |
| Minor / Other Injuries | 1 | 0 |
| Total Casualties: | 29 | 1 |
| Pedestrian Casualties | 15 | 1 |
| Casualty Crashes | 25 | 1 |
| Adjacent Casualty Crashes | 0 | 0 |
| Right Through Casualty Crashes | 0 | 0 |
| Rear End Casualty Crashes | 2 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 1 July 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 76 days after <br> installation $^{2}$ |
| Serious Injuries | 4 | 0 |
| Moderate Injuries | 4 | 0 |
| Minor / Other Injuries | 8 | 0 |
| Total Casualties: | 16 | 0 |
| Pedestrian Casualties | 2 | 0 |
| Casualty Crashes | 15 | 0 |
| Adjacent Casualty Crashes | 3 | 0 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 17 July 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 126 days after <br> installation $^{2}$ |
| Serious Injuries | 8 | 0 |
| Moderate Injuries | 1 | 2 |
| Minor / Other Injuries | 5 | 0 |
| Total Casualties: | 14 | 0 |
| Pedestrian Casualties | 0 | 2 |
| Casualty Crashes | 12 | 0 |
| Adjacent Casualty Crashes | 0 | 2 |
| Right Through Casualty Crashes | 11 | 0 |
| Rear End Casualty Crashes | 0 | 1 |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2014
2 Ending 31 December 2014


## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 187 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 2 | 0 | - |
| Moderate Injuries | 1 | 1 | $\downarrow 29 \%$ |
| Minor / Other Injuries | 10 | 1 | $\uparrow 42 \%$ |
| Total Casualties: | 13 | 4 | $\downarrow 43 \%$ |
| Pedestrian Casualties | 0 | 6 | $\downarrow 34 \%$ |
| Casualty Crashes | 12 | 0 | - |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 29 \%$ |
| Right Through Casualty Crashes | 8 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 0 | 4 | $\downarrow 29 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 3 years and 267 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 4 | 2 | $\downarrow 33 \%$ |
| Minor / Other Injuries | 6 | 2 | $\downarrow 55 \%$ |
| Total Casualties: | 13 | 4 | $\downarrow 59 \%$ |
| Pedestrian Casualties | 2 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 0 | 4 | $\downarrow 33 \%$ |
| Adjacent Casualty Crashes | 4 | 0 | - |
| Right Through Casualty Crashes | 2 | 2 | $\downarrow 67 \%$ |
| Rear End Casualty Crashes |  | 1 | $\uparrow 34 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 7 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 1 | 170 days after <br> installation $^{2}$ |
| Serious Injuries | 5 | 0 |
| Moderate Injuries | 2 | 0 |
| Minor / Other Injuries | 5 | 0 |
| Total Casualties: | 13 | 0 |
| Pedestrian Casualties | 2 | 0 |
| Casualty Crashes | 8 | 0 |
| Adjacent Casualty Crashes | 3 | 0 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 14 April 2014 2 Ending 31 December 2014

Infringements at enforced intersection



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 126 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 4 | 0 |
| Moderate Injuries | 5 | 0 |
| Minor / Other Injuries | 5 | 0 |
| Total Casualties: | 14 | 0 |
| Pedestrian Casualties | 5 | 0 |
| Casualty Crashes | 13 | 0 |
| Adjacent Casualty Crashes | 1 | 0 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes |  | 0 |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2014
2 Ending 31 December 2014



## 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
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 126 days after <br> installation $^{2}$ |
| Serious Injuries | 4 | 0 |
| Moderate Injuries | 4 | 0 |
| Minor / Other Injuries | 16 | 1 |
| Total Casualties: | 24 | 0 |
| Pedestrian Casualties | 3 | 1 |
| Casualty Crashes | 17 | 0 |
| Adjacent Casualty Crashes | 2 | 1 |
| Right Through Casualty Crashes | 9 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2014
2 Ending 31 December 2014


## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 81 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 5 | 2 | $\downarrow 53 \%$ |
| Moderate Injuries | 11 | 3 | $\downarrow$ 68\% |
| Minor / Other Injuries | 6 | 4 | $\downarrow 21 \%$ |
| Total Casualties: | 22 | 9 | $\downarrow$ 52\% |
| Pedestrian Casualties | 1 | 1 | $\uparrow 18 \%$ |
| Casualty Crashes | 15 | 8 | $\downarrow 37 \%$ |
| Adjacent Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 9 | 4 | $\downarrow$ 47\% |
| Rear End Casualty Crashes | 0 | 2 | Increase |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 1 year and 96 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 5 | 2 | $\uparrow 58 \%$ |
| Moderate Injuries | 13 | 2 | $\downarrow$ 39\% |
| Minor / Other Injuries | 13 | 5 | $\uparrow 52 \%$ |
| Total Casualties: | 31 | 9 | $\uparrow 15 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 24 | 8 | $\uparrow 32 \%$ |
| Adjacent Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 12 | 5 | $\uparrow 65 \%$ |
| Rear End Casualty Crashes | 4 | 1 | $\downarrow 1 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 June 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 257 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 1 | 2 | $\uparrow 170 \%$ |
| Minor / Other Injuries | 4 | 3 | $\uparrow 1 \%$ |
| Total Casualties: | 7 | 5 | $\downarrow$ 4\% |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 7 | 4 | $\downarrow 23 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 4 | $\uparrow 170 \%$ |
| Rear End Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 17 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 50 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 3 | 0 | - |
| Moderate Injuries | 11 | 5 | $\uparrow 101 \%$ |
| Minor / Other Injuries | 5 | 3 | $\downarrow 67 \%$ |
| Total Casualties: | 19 | 5 | $\uparrow 21 \%$ |
| Pedestrian Casualties | 2 | 13 | $\downarrow 17 \%$ |
| Casualty Crashes | 5 | 11 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 1 | 4 | $\downarrow 5 \%$ |
| Right Through Casualty Crashes | 1 | 1 | $\downarrow 3 \%$ |
| Rear End Casualty Crashes | $\downarrow 100 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 263 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 0 | 1 | Increase |
| Moderate Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 5 | 2 | $\uparrow 16 \%$ |
| Total Casualties: | 12 | 3 | $\downarrow 27 \%$ |
| Pedestrian Casualties | 2 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 11 | 2 | $\downarrow 47 \%$ |
| Adjacent Casualty Crashes | 4 | 1 | $\downarrow 27 \%$ |
| Right Through Casualty Crashes | 0 | 0 | - |
| Rear End Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 11 January 2013
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 137 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 11 | 0 |
| Moderate Injuries | 3 | 0 |
| Minor / Other Injuries | 9 | 0 |
| Total Casualties: | 23 | 0 |
| Pedestrian Casualties | 0 | 0 |
| Casualty Crashes | 17 | 0 |
| Adjacent Casualty Crashes | 3 | 0 |
| Right Through Casualty Crashes | 4 | 0 |
| Rear End Casualty Crashes | 4 | 0 |

## Infringements at enforced intersection


${ }^{1}$ Ending 91 days before the start of the warning letter period, 17 May 2014 2 Ending 31 December 2014


## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 308 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 5 | 0 | - |
| Moderate Injuries | 4 | 2 | $\uparrow 9 \%$ |
| Minor / Other Injuries | 5 | 5 | $\uparrow 239 \%$ |
| Total Casualties: | 14 | 1 | $\downarrow 46 \%$ |
| Pedestrian Casualties | 0 | 8 | $\uparrow 55 \%$ |
| Casualty Crashes | 11 | 1 | Increase |
| Adjacent Casualty Crashes | 3 | 1 | $\uparrow 48 \%$ |
| Right Through Casualty Crashes | 5 | 1 | $\downarrow 10 \%$ |
| Rear End Casualty Crashes | 2 | 2 | $\downarrow 46 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 November 2012
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 113 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 9 | 9 | $\uparrow 16 \%$ |
| Moderate Injuries | 5 | 5 | $\uparrow 16 \%$ |
| Minor / Other Injuries | 18 | 3 | $\downarrow 81 \%$ |
| Total Casualties: | 32 | 17 | $\downarrow 38 \%$ |
| Pedestrian Casualties | 21 | 1 | $\uparrow 16 \%$ |
| Casualty Crashes | 5 | 2 | $\downarrow 12 \%$ |
| Adjacent Casualty Crashes | 5 | 3 | $\downarrow 54 \%$ |
| Right Through Casualty Crashes | 4 | 3 | $\downarrow 30 \%$ |
| Rear End Casualty Crashes | $16 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 10 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 50 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 7 | $\uparrow 21 \%$ |
| Moderate Injuries | 10 | 4 | $\downarrow 52 \%$ |
| Minor / Other Injuries | 6 | 4 | $\downarrow 19 \%$ |
| Total Casualties: | 23 | 15 | $\downarrow 21 \%$ |
| Pedestrian Casualties | 2 | 1 | $\downarrow 40 \%$ |
| Casualty Crashes | 6 | 11 | $\downarrow 22 \%$ |
| Adjacent Casualty Crashes | 2 | 17 | $\downarrow 40 \%$ |
| Right Through Casualty Crashes | 2 | 5 | $\downarrow 40 \%$ |
| Rear End Casualty Crashes | $\uparrow 202 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 199 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 1 | $\uparrow 41 \%$ |
| Moderate Injuries | 4 | 5 | $\uparrow 76 \%$ |
| Minor / Other Injuries | 5 | 6 | $\uparrow 69 \%$ |
| Total Casualties: | 10 | 12 | $\uparrow 69 \%$ |
| Pedestrian Casualties | 9 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 0 | 10 | $\uparrow 57 \%$ |
| Adjacent Casualty Crashes | 4 | 2 | Increase |
| Right Through Casualty Crashes | 3 | 6 | $\downarrow 29 \%$ |
| Rear End Casualty Crashes | $\uparrow 182 \%$ |  |  |

${ }^{1}$ Ending 530 days before the start of the warning letter period, 1 January 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 187 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 1 | 0 | - |
| Moderate Injuries | 3 | 1 | $\uparrow 42 \%$ |
| Minor / Other Injuries | 3 | 1 | $\downarrow 53 \%$ |
| Total Casualties: | 7 | 3 | $\uparrow 42 \%$ |
| Pedestrian Casualties | 1 | 5 | $\uparrow 2 \%$ |
| Casualty Crashes | 5 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 0 | 4 | $\uparrow 14 \%$ |
| Right Through Casualty Crashes | 0 | 1 | Increase |
| Rear End Casualty Crashes | 2 | 3 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 308 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 3 | 0 | - |
| Moderate Injuries | 13 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 4 | 1 | $\downarrow 79 \%$ |
| Total Casualties: | 20 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 0 | 1 | $\downarrow 86 \%$ |
| Casualty Crashes | 13 | 1 | - |
| Adjacent Casualty Crashes | 9 | 1 | $\downarrow 79 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 70 \%$ |
| Rear End Casualty Crashes | 2 | 0 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 November 2012
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 187 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 0 | 1 | Increase |
| Moderate Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 4 | 1 | $\downarrow 64 \%$ |
| Total Casualties: | 7 | 2 | $\downarrow 59 \%$ |
| Pedestrian Casualties | 1 | 2 | $\uparrow 185 \%$ |
| Casualty Crashes | 6 | 2 | $\downarrow 53 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 185 <br> days after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 2 | $\uparrow 43 \%$ |
| Moderate Injuries | 2 | 3 | $\uparrow 114 \%$ |
| Minor / Other Injuries | 9 | 1 | $\downarrow 84 \%$ |
| Total Casualties: | 13 | 6 | $\downarrow 34 \%$ |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 10 | 3 | $\downarrow 57 \%$ |
| Adjacent Casualty Crashes | 0 | 2 | $\downarrow 29 \%$ |
| Right Through Casualty Crashes | 3 | 0 | - |
| Rear End Casualty Crashes | 0 | $\downarrow 100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 192 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 7 | 0 | - |
| Moderate Injuries | 16 | 2 | $\downarrow 6 \%$ |
| Minor / Other Injuries | 15 | 2 | $\downarrow 59 \%$ |
| Total Casualties: | 38 | 5 | $\uparrow 9 \%$ |
| Pedestrian Casualties | 15 | 9 | $\downarrow 22 \%$ |
| Casualty Crashes | 33 | 1 | $\downarrow 78 \%$ |
| Adjacent Casualty Crashes | 4 | 2 | $\downarrow 11 \%$ |
| Right Through Casualty Crashes | 2 | 1 | $\uparrow 64 \%$ |
| Rear End Casualty Crashes | 3 | 0 | $\downarrow 64 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 23 March 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 3 years and 288 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 2 | $\downarrow 12 \%$ |
| Moderate Injuries | 7 | 3 | $\downarrow 43 \%$ |
| Minor / Other Injuries | 2 | 4 | $\uparrow 164 \%$ |
| Total Casualties: | 12 | 9 | $\downarrow 1 \%$ |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 0 | 8 | $\uparrow 17 \%$ |
| Adjacent Casualty Crashes | 7 | 6 | - |
| Right Through Casualty Crashes | 2 | 1 | $\downarrow 13 \%$ |
| Rear End Casualty Crashes | 0 | $64 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 17 December 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 185 <br> days after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 0 | 3 | Increase |
| Moderate Injuries | 8 | 3 | $\downarrow 47 \%$ |
| Minor / Other Injuries | 6 | 4 | $\downarrow 5 \%$ |
| Total Casualties: | 14 | 10 | $\uparrow 2 \%$ |
| Pedestrian Casualties | 4 | 1 | $\downarrow 64 \%$ |
| Casualty Crashes | 2 | 10 | $\uparrow 19 \%$ |
| Adjacent Casualty Crashes | 2 | 2 | $\uparrow 43 \%$ |
| Right Through Casualty Crashes | 3 | 0 | $\uparrow 114 \%$ |
| Rear End Casualty Crashes | 10 | $\downarrow 100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 264 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 5 | 2 | $\downarrow$ 46\% |
| Moderate Injuries | 6 | 4 | $\downarrow 10 \%$ |
| Minor / Other Injuries | 2 | 3 | $\uparrow 101 \%$ |
| Total Casualties: | 13 | 9 | $\downarrow 7 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 10 | 7 | $\downarrow$ \% |
| Adjacent Casualty Crashes | 1 | 1 | $\uparrow 34 \%$ |
| Right Through Casualty Crashes | 6 | 5 | $\uparrow 12 \%$ |
| Rear End Casualty Crashes | 1 | 1 | $\uparrow 34 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 10 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 46 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 1 | 0 | - |
| Moderate Injuries | 6 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 4 | 1 | $\downarrow 26 \%$ |
| Total Casualties: | 11 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 1 | 1 | $\downarrow 60 \%$ |
| Casualty Crashes | 5 | 1 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 1 | 1 | $\downarrow 51 \%$ |
| Right Through Casualty Crashes | 1 | 0 | $\downarrow 11 \%$ |
| Rear End Casualty Crashes | $\downarrow 100 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 August 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 3 years and 187 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 4 | 5 | $\uparrow 78 \%$ |
| Minor / Other Injuries | 8 | 2 | $\downarrow 64 \%$ |
| Total Casualties: | 14 | 7 | $\downarrow 29 \%$ |
| Pedestrian Casualties | 2 | 1 | $\downarrow 29 \%$ |
| Casualty Crashes | 11 | 6 | $\downarrow 22 \%$ |
| Adjacent Casualty Crashes | 3 | 2 | $\uparrow 42 \%$ |
| Right Through Casualty Crashes | 4 | 1 | $\downarrow 5 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 64 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 March 2011
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 199 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 3 | $\uparrow 323 \%$ |
| Moderate Injuries | 9 | 2 | $\downarrow$ 69\% |
| Minor / Other Injuries | 5 | 4 | $\uparrow 13 \%$ |
| Total Casualties: | 15 | 9 | $\downarrow 15 \%$ |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 12 | 6 | $\downarrow$ 29\% |
| Adjacent Casualty Crashes | 5 | 1 | $\downarrow$ 72\% |
| Right Through Casualty Crashes | 3 | 3 | $\uparrow 41 \%$ |
| Rear End Casualty Crashes | 3 | 1 | $\downarrow 53 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 74 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 5 | 0 | - |
| Moderate Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 6 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 14 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 0 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 8 | 0 | - |
| Adjacent Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 19 July 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 3 years and 212 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 | Increase |
| Serious Injuries | 3 | 4 | $\uparrow 86 \%$ |
| Moderate Injuries | 9 | 2 | $\downarrow 69 \%$ |
| Minor / Other Injuries | 7 | 6 | $\uparrow 20 \%$ |
| Total Casualties: | 19 | 13 | $\downarrow 4 \%$ |
| Pedestrian Casualties | 13 | 1 | $\uparrow 40 \%$ |
| Casualty Crashes | 2 | 8 | $\downarrow 14 \%$ |
| Adjacent Casualty Crashes | 2 | 2 | $\uparrow 40 \%$ |
| Right Through Casualty Crashes | 5 | 3 | $\uparrow 40 \%$ |
| Rear End Casualty Crashes | $16 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 3 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 141 days after <br> installation $^{2}$ |
| Serious Injuries | 5 | 0 |
| Moderate Injuries | 5 | 0 |
| Minor / Other Injuries | 3 | 0 |
| Total Casualties: | 13 | 0 |
| Pedestrian Casualties | 0 | 0 |
| Casualty Crashes | 11 | 0 |
| Adjacent Casualty Crashes | 2 | 0 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes | 5 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 13 May 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation $^{1}$ | 4 years and 140 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 5 | 3 | $\downarrow 32 \%$ |
| Moderate Injuries | 18 | 6 | $\downarrow 62 \%$ |
| Minor / Other Injuries | 16 | 9 | $\downarrow 36 \%$ |
| Total Casualties: | 39 | 18 | $\downarrow 47 \%$ |
| Pedestrian Casualties | 2 | 1 | $\downarrow 43 \%$ |
| Casualty Crashes | 32 | 16 | $\downarrow 43 \%$ |
| Adjacent Casualty Crashes | 4 | 1 | $\uparrow 14 \%$ |
| Right Through Casualty Crashes | 13 | 6 | $\downarrow 14 \%$ |
| Rear End Casualty Crashes | $\downarrow 47 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 14 May 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 263 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 6 | 0 | - |
| Moderate Injuries | 17 | 4 | $\uparrow 94 \%$ |
| Minor / Other Injuries | 12 | 5 | $\downarrow 14 \%$ |
| Total Casualties: | 35 | 2 | $\downarrow 52 \%$ |
| Pedestrian Casualties | 0 | 11 | $\downarrow 9 \%$ |
| Casualty Crashes | 26 | 0 | - |
| Adjacent Casualty Crashes | 11 | 7 | $\downarrow 22 \%$ |
| Right Through Casualty Crashes | 1 | 4 | $\uparrow 6 \%$ |
| Rear End Casualty Crashes | 10 | 3 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 11 January 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 109 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 6 | $\downarrow 0 \%$ |
| Moderate Injuries | 8 | 2 | $\downarrow 71 \%$ |
| Minor / Other Injuries | 9 | 8 | $\uparrow 3 \%$ |
| Total Casualties: | 24 | 16 | $\downarrow 22 \%$ |
| Pedestrian Casualties | 2 | 1 | $\downarrow 42 \%$ |
| Casualty Crashes | 20 | 13 | $\downarrow 24 \%$ |
| Adjacent Casualty Crashes | 5 | 2 | $\downarrow 16 \%$ |
| Right Through Casualty Crashes | 11 | 8 | $\downarrow 53 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 15 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 14 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 78 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 4 | $\uparrow 19 \%$ |
| Moderate Injuries | 12 | 4 | $\downarrow 60 \%$ |
| Minor / Other Injuries | 9 | 5 | $\downarrow$ 34\% |
| Total Casualties: | 25 | 13 | $\downarrow 38 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 20 | 13 | $\downarrow$ 23\% |
| Adjacent Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 3 | 4 | $\uparrow 58 \%$ |
| Rear End Casualty Crashes | 6 | 6 | $\uparrow 19 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 245 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 6 | 0 | - |
| Moderate Injuries | 9 | 1 | $\downarrow 50 \%$ |
| Minor / Other Injuries | 9 | 6 | $\uparrow 100 \%$ |
| Total Casualties: | 24 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 2 | 7 | $\downarrow 13 \%$ |
| Casualty Crashes | 17 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 5 | 2 | $\downarrow 65 \%$ |
| Right Through Casualty Crashes | 5 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | 0 | $\uparrow 20 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 29 January 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 124 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 2 | 0 |
| Moderate Injuries | 3 | 0 |
| Minor / Other Injuries | 4 | 0 |
| Total Casualties: | 9 | 0 |
| Pedestrian Casualties | 1 | 0 |
| Casualty Crashes | 8 | 0 |
| Adjacent Casualty Crashes | 5 | 0 |
| Right Through Casualty Crashes | 0 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 May 2014 2 Ending 31 December 2014


Infringements at enforced intersection



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 199 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 1 | $\uparrow 41 \%$ |
| Moderate Injuries | 6 | 5 | $\uparrow 18 \%$ |
| Minor / Other Injuries | 6 | 6 | $\uparrow 41 \%$ |
| Total Casualties: | 13 | 12 | $\uparrow 30 \%$ |
| Pedestrian Casualties | 2 | 1 | $\downarrow 29 \%$ |
| Casualty Crashes | 2 | 8 | $\uparrow 3 \%$ |
| Adjacent Casualty Crashes | 3 | 2 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 3 | 2 | $\downarrow 6 \%$ |
| Rear End Casualty Crashes | $\downarrow 6 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 264 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 9 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 5 | 3 | $\downarrow 19 \%$ |
| Total Casualties: | 16 | 3 | $\downarrow 75 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 3 | 2 | $\downarrow 79 \%$ |
| Adjacent Casualty Crashes | 6 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 1 | 1 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 13 | $\uparrow 34 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 10 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 64 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 11 | 1 | Increase |
| Moderate Injuries | 12 | 4 | $\downarrow 56 \%$ |
| Minor / Other Injuries | 7 | 7 | $\downarrow 30 \%$ |
| Total Casualties: | 30 | 10 | $\uparrow 71 \%$ |
| Pedestrian Casualties | 1 | 22 | $\downarrow 12 \%$ |
| Casualty Crashes | 20 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 10 | 1 | $\downarrow 4 \%$ |
| Right Through Casualty Crashes | 2 | 7 | $\downarrow 40 \%$ |
| Rear End Casualty Crashes | 4 | $\downarrow 16 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 29 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 232 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 5 | $\uparrow 588 \%$ |
| Moderate Injuries | 4 | 2 | $\downarrow 31 \%$ |
| Minor / Other Injuries | 2 | 4 | $\uparrow 175 \%$ |
| Total Casualties: | 7 | 11 | $\uparrow 116 \%$ |
| Pedestrian Casualties | 7 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 2 | 0 | $\uparrow 77 \%$ |
| Adjacent Casualty Crashes | 0 | 5 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 1 | 3 | Increase |
| Rear End Casualty Crashes | $7313 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 11 February 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation | 4 years and 183 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 9 | 6 | $\downarrow 26 \%$ |
| Moderate Injuries | 11 | 8 | $\downarrow 19 \%$ |
| Minor / Other Injuries | 6 | 2 | $\downarrow 63 \%$ |
| Total Casualties: | 26 | 16 | $\downarrow 32 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 20 | 12 | $\downarrow 33 \%$ |
| Adjacent Casualty Crashes | 3 | 1 | $\downarrow 63 \%$ |
| Right Through Casualty Crashes | 7 | 2 | $\downarrow 38 \%$ |
| Rear End Casualty Crashes | 9 | $\downarrow 68 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 1 April 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 75 days after <br> installation $^{2}$ |
| Serious Injuries | 9 | 0 |
| Moderate Injuries | 9 | 0 |
| Minor / Other Injuries | 14 | 1 |
| Total Casualties: | 32 | 1 |
| Pedestrian Casualties | 0 | 2 |
| Casualty Crashes | 22 | 0 |
| Adjacent Casualty Crashes | 1 | 2 |
| Right Through Casualty Crashes | 16 | 0 |
| Rear End Casualty Crashes | 0 | 1 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 18 July 2014
2 Ending 31 December 2014


## 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.
- While the results to date indicate an increase casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 60 to 70 in May 2012.


## Casualties and casualty crashes at enforced intersection

|  | 5 years before <br> installation | 4 years and 113 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 5 | $\uparrow 190 \%$ |
| Moderate Injuries | 9 | 4 | $\downarrow 48 \%$ |
| Minor / Other Injuries | 5 | 17 | $\uparrow 294 \%$ |
| Total Casualties: | 16 | 26 | $\uparrow 89 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 1 | 23 | $\uparrow 91 \%$ |
| Adjacent Casualty Crashes | 3 | 1 | $\uparrow 16 \%$ |
| Right Through Casualty Crashes | 8 | 13 | $\downarrow 61 \%$ |
| Rear End Casualty Crashes | $\uparrow 89 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 10 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While results to date reveal a significant decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 177 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 3 | 0 | - |
| Moderate Injuries | 18 | 1 | $\downarrow 63 \%$ |
| Minor / Other Injuries | 11 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 32 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 3 | 1 | $\downarrow 97 \%$ |
| Casualty Crashes | 22 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 2 | 1 | $\downarrow 95 \%$ |
| Right Through Casualty Crashes | 11 | 1 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 4 | 0 | $\downarrow 90 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 7 April 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 290 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 | Increase |
| Serious Injuries | 2 | 3 | $\uparrow 98 \%$ |
| Moderate Injuries | 4 | 3 | $\downarrow 1 \%$ |
| Minor / Other Injuries | 8 | 1 | $\downarrow 84 \%$ |
| Total Casualties: | 14 | 8 | $\downarrow 25 \%$ |
| Pedestrian Casualties | 1 | 2 | $\uparrow 163 \%$ |
| Casualty Crashes | 2 | 12 | $\downarrow 12 \%$ |
| Adjacent Casualty Crashes | 1 | 1 | $\downarrow 34 \%$ |
| Right Through Casualty Crashes | 5 | 1 | $\uparrow 32 \%$ |
| Rear End Casualty Crashes |  | 1 | $\downarrow 74 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 December 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras
- 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 <br> installation $^{1}$ | 4 years and 135 <br> days after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 13 | 2 | $\downarrow 82 \%$ |
| Moderate Injuries | 4 | 1 | $\downarrow 71 \%$ |
| Minor / Other Injuries | 7 | 3 | $\downarrow 51 \%$ |
| Total Casualties: | 24 | 6 | $\downarrow 71 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 2 | 5 | $\downarrow 68 \%$ |
| Adjacent Casualty Crashes | 8 | 1 | $\downarrow 43 \%$ |
| Right Through Casualty Crashes | 2 | 1 | $\downarrow 57 \%$ |
| Rear End Casualty Crashes | $\downarrow$ | $\downarrow 3 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 19 May 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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 December 2010
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 16 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 2 | $\downarrow$ 38\% |
| Moderate Injuries | 8 | 6 | $\downarrow$ \% |
| Minor / Other Injuries | 8 | 3 | $\downarrow 54 \%$ |
| Total Casualties: | 20 | 11 | $\downarrow 32 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 12 | 9 | $\downarrow$ \% |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 6 | 5 | $\uparrow 3 \%$ |
| Rear End Casualty Crashes | 4 | 3 | $\downarrow$ \% |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 16 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 1 | 0 | - |
| Moderate Injuries | 5 | 2 | $\uparrow 147 \%$ |
| Minor / Other Injuries | 4 | 2 | $\downarrow 51 \%$ |
| Total Casualties: | 10 | 1 | $\downarrow 69 \%$ |
| Pedestrian Casualties | 1 | 5 | $\downarrow 38 \%$ |
| Casualty Crashes | 2 | 2 | $\uparrow 147 \%$ |
| Adjacent Casualty Crashes | 1 | 5 | $\downarrow 31 \%$ |
| Right Through Casualty Crashes | 5 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\downarrow 100 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 46 days <br> after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 10 | 2 | $\downarrow 11 \%$ |
| Moderate Injuries | 4 | 1 | $\uparrow 11 \%$ |
| Minor / Other Injuries | 7 | 1 | $\downarrow 37 \%$ |
| Total Casualties: | 21 | 4 | $\downarrow 15 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 13 | 4 | $\uparrow 37 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 3 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | 0 | $\uparrow 196 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 August 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 308 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 1 | $\downarrow 10 \%$ |
| Moderate Injuries | 5 | 2 | $\uparrow 9 \%$ |
| Minor / Other Injuries | 3 | 1 | $\downarrow 10 \%$ |
| Total Casualties: | 11 | 4 | $\downarrow 1 \%$ |
| Pedestrian Casualties | 1 | 1 | $\uparrow 171 \%$ |
| Casualty Crashes | 5 | 4 | $\uparrow 36 \%$ |
| Adjacent Casualty Crashes | 2 | 0 | $\uparrow 63 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 5 | - |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 November 2012
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 163 days after <br> installation $^{2}$ |
| Serious Injuries | 5 | 0 |
| Moderate Injuries | 8 | 0 |
| Minor / Other Injuries | 10 | 0 |
| Total Casualties: | 23 | 0 |
| Pedestrian Casualties | 0 | 0 |
| Casualty Crashes | 17 | 0 |
| Adjacent Casualty Crashes | 7 | 0 |
| Right Through Casualty Crashes | 0 | 0 |
| Rear End Casualty Crashes | 7 | 0 |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 21 April 2014
${ }^{2}$ Ending 31 December 2014


## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 251 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 3 | 0 | - |
| Moderate Injuries | 2 | 1 | $\downarrow 1 \%$ |
| Minor / Other Injuries | 4 | 1 | $\uparrow 48 \%$ |
| Total Casualties: | 9 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 3 | 2 | $\downarrow 34 \%$ |
| Casualty Crashes | 9 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 0 | 2 | $\downarrow 34 \%$ |
| Right Through Casualty Crashes | 2 | 1 | - |
| Rear End Casualty Crashes | 0 | 1 | $\uparrow 48 \%$ |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 23 January 2013
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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.


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## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 50 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 3 | $\uparrow 81 \%$ |
| Moderate Injuries | 4 | 2 | $\downarrow 40 \%$ |
| Minor / Other Injuries | 10 | 3 | $\downarrow 64 \%$ |
| Total Casualties: | 16 | 8 | $\downarrow 40 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 14 | 7 | $\downarrow 40 \%$ |
| Adjacent Casualty Crashes | 0 | 1 | $\uparrow 21 \%$ |
| Right Through Casualty Crashes | 9 | 3 | $\downarrow 60 \%$ |
| Rear End Casualty Crashes |  |  | 1 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 1 year and 96 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 2 | 1 | $\uparrow 98 \%$ |
| Minor / Other Injuries | 5 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 14 | 1 | $\downarrow 72 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 13 | 1 | $\downarrow 70 \%$ |
| Adjacent Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 5 | 1 | $\downarrow 21 \%$ |
| Rear End Casualty Crashes |  | 0 |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 June 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 16 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 6 | $\uparrow 6 \%$ |
| Moderate Injuries | 5 | 4 | $\downarrow 1 \%$ |
| Minor / Other Injuries | 5 | 5 | $\uparrow 24 \%$ |
| Total Casualties: | 17 | 15 | $\uparrow 9 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 15 | 13 | $\uparrow 7 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 8 | 7 | Increase |
| Rear End Casualty Crashes | 0 | $78 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010 2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 72 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 9 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 3 | 2 | $\downarrow 21 \%$ |
| Minor / Other Injuries | 12 | 8 | $\downarrow 21 \%$ |
| Total Casualties: | 24 | 10 | $\downarrow 50 \%$ |
| Pedestrian Casualties | 3 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 21 | 9 | $\downarrow$ 49\% |
| Adjacent Casualty Crashes | 5 | 2 | $\downarrow$ 52\% |
| Right Through Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 4 | 5 | $\uparrow 49 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 21 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



- 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras
- 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 ${ }^{1}$ | 4 years and 184 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 34 | 8 | $\downarrow 74 \%$ |
| Moderate Injuries | 5 | 4 | $\downarrow 11 \%$ |
| Minor / Other Injuries | 17 | 8 | $\downarrow$ 48\% |
| Total Casualties: | 56 | 20 | $\downarrow$ 60\% |
| Pedestrian Casualties | 2 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 37 | 13 | $\downarrow 61 \%$ |
| Adjacent Casualty Crashes | 26 | 5 | $\downarrow 79 \%$ |
| Right Through Casualty Crashes | 1 | 2 | $\uparrow 122 \%$ |
| Rear End Casualty Crashes | 5 | 2 | $\downarrow$ 56\% |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 31 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 321 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 2 | 0 |
| Moderate Injuries | 2 | 0 |
| Minor / Other Injuries | 0 | 2 |
| Total Casualties: | 4 | 2 |
| Pedestrian Casualties | 2 | 0 |
| Casualty Crashes | 4 | 2 |
| Adjacent Casualty Crashes | 1 | 2 |
| Right Through Casualty Crashes | 0 | 0 |
| Rear End Casualty Crashes | 1 | 0 |

## Infringements at enforced intersection


${ }^{1}$ Ending 91 days before the start of the warning letter period, 14 November 2013 2 Ending 31 December 2014


## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 223 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 1 | $\uparrow 211 \%$ |
| Moderate Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 16 | 1 | $\downarrow 81 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 11 | 1 | $\downarrow 72 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 1 | 0 | - |
| Rear End Casualty Crashes |  | $100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 20 February 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 190 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 10 | 3 | $\downarrow 67 \%$ |
| Moderate Injuries | 14 | 2 | $\downarrow 84 \%$ |
| Minor / Other Injuries | 10 | 14 | $\uparrow 55 \%$ |
| Total Casualties: | 34 | 19 | $\downarrow 38 \%$ |
| Pedestrian Casualties | 3 | 1 | $\downarrow 63 \%$ |
| Casualty Crashes | 25 | 10 | $\downarrow 56 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 14 | 7 | $\downarrow 45 \%$ |
| Rear End Casualty Crashes | 4 | 1 | $\downarrow 72 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 121 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 6 | 1 | $\downarrow 81 \%$ |
| Moderate Injuries | 6 | 6 | $\uparrow 15 \%$ |
| Minor / Other Injuries | 11 | 5 | $\downarrow 48 \%$ |
| Total Casualties: | 23 | 12 | $\downarrow 40 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 16 | 12 | $\downarrow 13 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 0 | 0 | - |
| Rear End Casualty Crashes | 16 | 8 |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 2 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 77 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 0 | 2 | Increase |
| Moderate Injuries | 5 | 2 | $\downarrow 53 \%$ |
| Minor / Other Injuries | 3 | 5 | $\uparrow 98 \%$ |
| Total Casualties: | 8 | 9 | $\uparrow 34 \%$ |
| Pedestrian Casualties | 1 | 5 | $\uparrow 494 \%$ |
| Casualty Crashes | 7 | 8 | $\uparrow 36 \%$ |
| Adjacent Casualty Crashes | 1 | 2 | $\uparrow 19 \%$ |
| Right Through Casualty Crashes | 2 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\uparrow 19 \%$ |  |  |

Infringements at enforced intersection


## Month-Year

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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.


## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 99 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 1 | 0 | - |
| Moderate Injuries | 6 | 3 | $\uparrow 251 \%$ |
| Minor / Other Injuries | 11 | 1 | $\downarrow 80 \%$ |
| Total Casualties: | 18 | 8 | $\downarrow 15 \%$ |
| Pedestrian Casualties | 1 | 12 | $\downarrow 22 \%$ |
| Casualty Crashes | 3 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 4 | 8 | $\downarrow 33 \%$ |
| Right Through Casualty Crashes | 6 | 5 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 14 | $\downarrow 46 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 24 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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


## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 95 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 0 | 0 | - |
| Moderate Injuries | 6 | 0 | - |
| Minor / Other Injuries | 1 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 7 | 1 | $\uparrow 297 \%$ |
| Pedestrian Casualties | 0 | 1 | $\downarrow 43 \%$ |
| Casualty Crashes | 6 | 0 | - |
| Adjacent Casualty Crashes | 3 | 0 | $\downarrow 34 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 3 | 0 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 June 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 32 days <br> after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 6 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 5 | 2 | $\uparrow 84 \%$ |
| Total Casualties: | 15 | 2 | $\downarrow 39 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 11 | 1 | $\downarrow 58 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 1 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $\uparrow$ | 0 | $\uparrow 130 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 August 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 193 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 6 | 4 | $\downarrow$ 6\% |
| Minor / Other Injuries | 8 | 1 | $\downarrow 82 \%$ |
| Total Casualties: | 17 | 5 | $\downarrow 58 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 10 | 4 | $\downarrow$ 43\% |
| Adjacent Casualty Crashes | 1 | 1 | $\uparrow 42 \%$ |
| Right Through Casualty Crashes | 3 | 1 | $\downarrow$ 53\% |
| Rear End Casualty Crashes | 4 | 1 | $\downarrow$ 65\% |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 22 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 204 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 5 | 0 | - |
| Moderate Injuries | 6 | 3 | $\downarrow 16 \%$ |
| Minor / Other Injuries | 3 | 3 | $\downarrow 30 \%$ |
| Total Casualties: | 14 | 2 | $\downarrow 6 \%$ |
| Pedestrian Casualties | 3 | 2 | $\downarrow 20 \%$ |
| Casualty Crashes | 12 | 7 | $\downarrow 6 \%$ |
| Adjacent Casualty Crashes | 0 | 2 | $\downarrow 18 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $1 n c r e a s e$ |
| Rear End Casualty Crashes | 5 | 1 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 11 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- A longer period of time is required to assess the effectiveness of the camera
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 126 days after <br> installation $^{2}$ |
| Serious Injuries | 2 | 0 |
| Moderate Injuries | 4 | 0 |
| Minor / Other Injuries | 2 | 1 |
| Total Casualties: | 8 | 0 |
| Pedestrian Casualties | 0 | 1 |
| Casualty Crashes | 6 | 0 |
| Adjacent Casualty Crashes | 1 | 1 |
| Right Through Casualty Crashes | 5 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2014 2 Ending 31 December 2014

Infringements at enforced intersection



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 50 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 5 | $\downarrow 14 \%$ |
| Moderate Injuries | 15 | 2 | $\downarrow$ 84\% |
| Minor / Other Injuries | 3 | 6 | $\uparrow 142 \%$ |
| Total Casualties: | 25 | 13 | $\downarrow 37 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 17 | 9 | $\downarrow 36 \%$ |
| Adjacent Casualty Crashes | 8 | 6 | $\downarrow 9 \%$ |
| Right Through Casualty Crashes | 8 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 0 | 2 | Increase |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 ${ }^{1}$ | 4 years and 154 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 9 | 2 | $\downarrow 75 \%$ |
| Moderate Injuries | 11 | 5 | $\downarrow$ 49\% |
| Minor / Other Injuries | 7 | 7 | $\uparrow 13 \%$ |
| Total Casualties: | 27 | 14 | $\downarrow$ 41\% |
| Pedestrian Casualties | 3 | 2 | $\downarrow 25 \%$ |
| Casualty Crashes | 22 | 13 | $\downarrow$ 33\% |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 8 | 3 | $\downarrow$ 58\% |
| Rear End Casualty Crashes | 5 | 6 | $\uparrow 36 \%$ |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 April 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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.



B112

## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 91 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 13 | 3 | $\downarrow 73 \%$ |
| Minor / Other Injuries | 5 | 6 | $\uparrow 41 \%$ |
| Total Casualties: | 20 | 9 | $\downarrow 47 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 12 | 0 | $\downarrow 12 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 5 | 6 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 4 | 0 | $\uparrow 41 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 2 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 185 <br> days after installation | Percentage $_{\text {change }^{3}}$ |
| Serious Injuries | 5 | 0 | - |
| Moderate Injuries | 10 | 2 | $\downarrow 56 \%$ |
| Minor / Other Injuries | 12 | 2 | $\downarrow 78 \%$ |
| Total Casualties: | 27 | 6 | $\downarrow 45 \%$ |
| Pedestrian Casualties | 0 | 10 | $\downarrow 59 \%$ |
| Casualty Crashes | 24 | 0 | - |
| Adjacent Casualty Crashes | 0 | 10 | $\downarrow 54 \%$ |
| Right Through Casualty Crashes | 3 | 0 | - |
| Rear End Casualty Crashes | 14 | 5 | $\downarrow 60 \%$ |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 March 2010
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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.



B114

## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 77 days <br> after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 4 | 0 | - |
| Moderate Injuries | 4 | 1 | $\downarrow 70 \%$ |
| Minor / Other Injuries | 10 | 5 | $\uparrow 48 \%$ |
| Total Casualties: | 18 | 5 | $\downarrow 41 \%$ |
| Pedestrian Casualties | 2 | 11 | $\downarrow 27 \%$ |
| Casualty Crashes | 16 | 1 | $\downarrow 41 \%$ |
| Adjacent Casualty Crashes | 8 | 4 | $\downarrow 33 \%$ |
| Right Through Casualty Crashes | 2 | 2 | $\downarrow 41 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow$ | $\uparrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 94 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 6 | 1 | $\downarrow 80 \%$ |
| Moderate Injuries | 15 | 7 | $\downarrow$ 45\% |
| Minor / Other Injuries | 13 | 6 | $\downarrow$ 46\% |
| Total Casualties: | 34 | 14 | $\downarrow 52 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 23 | 14 | $\downarrow$ 29\% |
| Adjacent Casualty Crashes | 7 | 3 | $\downarrow 50 \%$ |
| Right Through Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 3 | 2 | $\downarrow 22 \%$ |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 29 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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.


## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 187 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 1 | $\uparrow 42 \%$ |
| Moderate Injuries | 4 | 1 | $\downarrow$ 64\% |
| Minor / Other Injuries | 7 | 1 | $\downarrow 80 \%$ |
| Total Casualties: | 12 | 3 | $\downarrow$ 64\% |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 10 | 3 | $\downarrow$ 57\% |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 3 | 1 | $\downarrow 53 \%$ |
| Rear End Casualty Crashes | 3 | 1 | $\downarrow 53 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 347 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 6 | 1 |
| Moderate Injuries | 2 | 0 |
| Minor / Other Injuries | 3 | 0 |
| Total Casualties: | 11 | 1 |
| Pedestrian Casualties | 0 | 0 |
| Casualty Crashes | 9 | 1 |
| Adjacent Casualty Crashes | 2 | 1 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes | 1 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 19 October 2013 ${ }^{2}$ Ending 31 December 2014

Infringements at enforced intersection



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 185 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 13 | 8 | $\downarrow 32 \%$ |
| Moderate Injuries | 14 | 8 | $\downarrow 37 \%$ |
| Minor / Other Injuries | 7 | 4 | $\downarrow 37 \%$ |
| Total Casualties: | 34 | 20 | $\downarrow 35 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 24 | 13 | $\downarrow 40 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 3 | 6 | $\downarrow 56 \%$ |
| Rear End Casualty Crashes | 2 | $\downarrow 26 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 1 year and 32 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 1 | $\uparrow 15 \%$ |
| Moderate Injuries | 19 | 3 | $\downarrow 27 \%$ |
| Minor / Other Injuries | 2 | 3 | $\uparrow 590 \%$ |
| Total Casualties: | 25 | 7 | $\uparrow 29 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 6 | 7 | $\uparrow 89 \%$ |
| Adjacent Casualty Crashes | 1 | 1 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 4 | 3 | $\uparrow 360 \%$ |
| Rear End Casualty Crashes |  | $17245 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 30 August 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 year and 126 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 4 | 0 | - |
| Moderate Injuries | 10 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 2 | 1 | $\downarrow 63 \%$ |
| Total Casualties: | 16 | 3 | $\uparrow 458 \%$ |
| Pedestrian Casualties | 0 | 4 | $\downarrow 7 \%$ |
| Casualty Crashes | 11 | 0 | - |
| Adjacent Casualty Crashes | 2 | 4 | $\uparrow 35 \%$ |
| Right Through Casualty Crashes | 6 | 0 | 1 |
| Rear End Casualty Crashes | 2 | $\downarrow 58 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 May 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 50 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 4 | 0 | - |
| Moderate Injuries | 4 | 3 | $\downarrow 9 \%$ |
| Minor / Other Injuries | 4 | 4 | $\uparrow 21 \%$ |
| Total Casualties: | 12 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 0 | 7 | $\downarrow 30 \%$ |
| Casualty Crashes | 10 | 0 | - |
| Adjacent Casualty Crashes | 3 | 2 | $\downarrow 52 \%$ |
| Right Through Casualty Crashes | 5 | 2 | $\downarrow 19 \%$ |
| Rear End Casualty Crashes | 1 | 0 | $\downarrow 52 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 50 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 2 | $\uparrow 21 \%$ |
| Moderate Injuries | 12 | 2 | $\downarrow$ 80\% |
| Minor / Other Injuries | 5 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 19 | 4 | $\downarrow 75 \%$ |
| Pedestrian Casualties | 1 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 12 | 4 | $\downarrow$ 60\% |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 7 | 3 | $\downarrow$ 48\% |
| Rear End Casualty Crashes | 3 | 0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 12 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



- 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 268 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 6 | $\uparrow 15 \%$ |
| Moderate Injuries | 7 | 5 | $\downarrow 4 \%$ |
| Minor / Other Injuries | 8 | 1 | $\downarrow 83 \%$ |
| Total Casualties: | 22 | 12 | $\downarrow 27 \%$ |
| Pedestrian Casualties | 14 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 1 | 9 | $\downarrow 14 \%$ |
| Adjacent Casualty Crashes | 4 | 4 | $\uparrow 34 \%$ |
| Right Through Casualty Crashes | 5 | 2 | $\uparrow 34 \%$ |
| Rear End Casualty Crashes | $146 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 6 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 ${ }^{1}$ | 1 year and 17 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 2 | $\uparrow$ 219\% |
| Moderate Injuries | 6 | 1 | $\downarrow$ 20\% |
| Minor / Other Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 17 | 3 | $\downarrow 16 \%$ |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 13 | 3 | $\uparrow 10 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 5 | 1 | $\downarrow$ 4\% |

## Infringements at enforced intersection


${ }^{1}$ Ending 91 days before the start of the warning letter period, 14 September 2013
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the cameras.
- 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 <br> installation $^{1}$ | 4 years and 176 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Serious Injuries | 5 | 3 | $\downarrow 33 \%$ |
| Moderate Injuries | 16 | 5 | $\downarrow 65 \%$ |
| Minor / Other Injuries | 12 | 9 | $\downarrow 16 \%$ |
| Total Casualties: | 35 | 17 | $\downarrow 46 \%$ |
| Pedestrian Casualties | 22 | 1 | $\uparrow 12 \%$ |
| Casualty Crashes | 2 | 15 | $\downarrow 24 \%$ |
| Adjacent Casualty Crashes | 14 | 6 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 7 | $\downarrow 52 \%$ |
| Rear End Casualty Crashes | $\uparrow 290 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 8 April 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 1 year and 96 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 6 | 2 | $\uparrow 32 \%$ |
| Moderate Injuries | 4 | 3 | $\uparrow 197 \%$ |
| Minor / Other Injuries | 9 | 1 | $\downarrow 56 \%$ |
| Total Casualties: | 19 | 6 | $\uparrow 25 \%$ |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 11 | 5 | $\uparrow 80 \%$ |
| Adjacent Casualty Crashes | 6 | 2 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 0 | 2 | $\uparrow 98 \%$ |
| Rear End Casualty Crashes | 4 | Increase |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 June 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 65 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Serious Injuries | 15 | 3 | $\downarrow 76 \%$ |
| Moderate Injuries | 9 | 4 | $\downarrow$ 47\% |
| Minor / Other Injuries | 14 | 12 | $\uparrow 3 \%$ |
| Total Casualties: | 39 | 19 | $\downarrow$ 42\% |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 27 | 15 | $\downarrow 34 \%$ |
| Adjacent Casualty Crashes | 11 | 1 | $\downarrow$ 89\% |
| Right Through Casualty Crashes | 1 | 3 | $\uparrow$ 259\% |
| Rear End Casualty Crashes | 11 | 7 | $\downarrow 24 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 July 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 4 years and 184 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 11 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 7 | 4 | $\downarrow 60 \%$ |
| Minor / Other Injuries | 19 | 8 | $\uparrow 27 \%$ |
| Total Casualties: | 38 | 11 | $\downarrow 36 \%$ |
| Pedestrian Casualties | 0 | 23 | $\downarrow 33 \%$ |
| Casualty Crashes | 31 | 0 | $\downarrow 6$ |
| Adjacent Casualty Crashes | 6 | 4 | $\downarrow 23 \%$ |
| Right Through Casualty Crashes | 10 | 5 | $\downarrow 7 \%$ |
| Rear End Casualty Crashes | 6 | $\downarrow 56 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 31 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 92 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 8 | 1 |
| Moderate Injuries | 10 | 0 |
| Minor / Other Injuries | 11 | 0 |
| Total Casualties: | 29 | 1 |
| Pedestrian Casualties | 9 | 1 |
| Casualty Crashes | 24 | 1 |
| Adjacent Casualty Crashes | 2 | 0 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes | 2 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 1 July 2014
${ }^{2}$ Ending 31 December 2014


## Infringements at enforced intersection




## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 4 years and 16 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| Serious Injuries | 0 | 0 | - |
| Moderate Injuries | 6 | 1 | Increase |
| Minor / Other Injuries | 7 | 5 | $\uparrow 3 \%$ |
| Total Casualties: | 13 | 4 | $\downarrow 29 \%$ |
| Pedestrian Casualties | 0 | 10 | $\downarrow 5 \%$ |
| Casualty Crashes | 12 | 0 | - |
| Adjacent Casualty Crashes | 1 | 1 | $\downarrow 7 \%$ |
| Right Through Casualty Crashes | 7 | 0 | $\downarrow n c r e a s e$ |
| Rear End Casualty Crashes | $\downarrow 100 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## Ultimo - Wattle Street at William Henry Stree

- 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 204 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 1 | 0 | - |
| Moderate Injuries | 5 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 15 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 21 | 4 | $\downarrow 63 \%$ |
| Pedestrian Casualties | 0 | 4 | $\downarrow 73 \%$ |
| Casualty Crashes | 13 | 0 | - |
| Adjacent Casualty Crashes | 6 | 1 | $\downarrow 78 \%$ |
| Right Through Casualty Crashes | 3 | 0 | $\downarrow 77 \%$ |
| Rear End Casualty Crashes | 1 | 1 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 11 March 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 3 years and 263 <br> days after installation | Percentage <br> change $^{3}$ |
| Serious Injuries | 5 | 0 | - |
| Moderate Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 11 | 1 | $\downarrow 81 \%$ |
| Total Casualties: | 23 | 3 | $\downarrow 63 \%$ |
| Pedestrian Casualties | 0 | 4 | $\downarrow 77 \%$ |
| Casualty Crashes | 12 | 1 | $\mid n c r e a s e$ |
| Adjacent Casualty Crashes | 0 | 0 | $\downarrow 55 \%$ |
| Right Through Casualty Crashes | 10 | 1 | - |
| Rear End Casualty Crashes | 1 | 1 | $\downarrow 87 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 11 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera.
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation | 92 days after <br> installation $^{2}$ |
| :--- | :---: | :---: |
| Fatalities | 0 | 0 |
| Serious Injuries | 1 | 0 |
| Moderate Injuries | 3 | 0 |
| Minor / Other Injuries | 1 | 1 |
| Total Casualties: | 5 | 1 |
| Pedestrian Casualties | 1 | 0 |
| Casualty Crashes | 5 | 1 |
| Adjacent Casualty Crashes | 0 | 0 |
| Right Through Casualty Crashes | 2 | 0 |
| Rear End Casualty Crashes | 0 | 1 |

Infringements at enforced intersection

${ }^{1}$ Ending 91 days before the start of the warning letter period, 1 July 2014
2 Ending 31 December 2014


## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 1 year and 96 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 1 | 1 | $\uparrow 296 \%$ |
| Minor / Other Injuries | 6 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 9 | 1 | $\downarrow 56 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 0 | 1 | $\downarrow 34 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | - |
| Right Through Casualty Crashes | 5 | 1 | $\downarrow 21 \%$ |
| Rear End Casualty Crashes | 0 | 0 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 June 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 70 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 2 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 2 | 1 | $\uparrow 110 \%$ |
| Total Casualties: | 12 | 1 | $\downarrow 65 \%$ |
| Pedestrian Casualties | 1 | 1 | $\uparrow 320 \%$ |
| Casualty Crashes | 2 | 1 | $\downarrow 40 \%$ |
| Adjacent Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 2 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes |  | $100 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 23 July 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 4 years and 46 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 1 | $\downarrow 83 \%$ |
| Moderate Injuries | 12 | 5 | $\downarrow 50 \%$ |
| Minor / Other Injuries | 12 | 6 | $\downarrow 39 \%$ |
| Total Casualties: | 31 | 12 | $\downarrow 53 \%$ |
| Pedestrian Casualties | 23 | 1 | $\uparrow 21 \%$ |
| Casualty Crashes | 0 | 10 | $\downarrow 47 \%$ |
| Adjacent Casualty Crashes | 7 | 0 | - |
| Right Through Casualty Crashes | 11 | 8 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | $12 \%$ |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 16 August 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 95 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 5 | 3 | $\downarrow 30 \%$ |
| Minor / Other Injuries | 6 | 4 | $\downarrow 22 \%$ |
| Total Casualties: | 14 | 7 | $\downarrow 41 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 12 | 5 | $\downarrow 51 \%$ |
| Adjacent Casualty Crashes | 4 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 5 | 4 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 1 | $\downarrow 6 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 June 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 127 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Serious Injuries | 5 | 1 | $\downarrow 77 \%$ |
| Moderate Injuries | 2 | 2 | $\uparrow 15 \%$ |
| Minor / Other Injuries | 2 | 3 | $\uparrow 72 \%$ |
| Total Casualties: | 10 | 6 | $\downarrow 31 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 1 | 1 | $\downarrow 36 \%$ |
| Adjacent Casualty Crashes | 2 | 0 | $\uparrow 15 \%$ |
| Right Through Casualty Crashes | 2 | 4 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes |  | $130 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 27 May 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 4 years and 16 days <br> after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 1 | 2 | $\uparrow 147 \%$ |
| Moderate Injuries | 11 | 2 | $\downarrow 78 \%$ |
| Minor / Other Injuries | 8 | 1 | $\downarrow 85 \%$ |
| Total Casualties: | 20 | 5 | $\downarrow 69 \%$ |
| Pedestrian Casualties | 0 | 1 | Increase |
| Casualty Crashes | 16 | 4 | $\downarrow 69 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 2 | 2 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 10 | $\downarrow 75 \%$ |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 September 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation | 1 year and 277 days <br> after installation $^{2}$ | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 5 | 4 | $\uparrow 128 \%$ |
| Moderate Injuries | 5 | 4 | $\uparrow 128 \%$ |
| Minor / Other Injuries | 15 | 3 | $\downarrow 43 \%$ |
| Total Casualties: | 25 | 11 | $\uparrow 25 \%$ |
| Pedestrian Casualties | 2 | 3 | $\uparrow 327 \%$ |
| Casualty Crashes | 13 | 10 | $\uparrow 119 \%$ |
| Adjacent Casualty Crashes | 4 | 1 | $\downarrow 29 \%$ |
| Right Through Casualty Crashes | 2 | 4 | $\uparrow 185 \%$ |
| Rear End Casualty Crashes | 4 | 1 | $\uparrow 42 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 28 December 2012
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight increase in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 218 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 3 | 1 | $\downarrow 54 \%$ |
| Moderate Injuries | 1 | 3 | $\uparrow 317 \%$ |
| Minor / Other Injuries | 3 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 7 | 4 | $\downarrow$ 21\% |
| Pedestrian Casualties | 3 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 5 | 4 | $\uparrow 11 \%$ |
| Adjacent Casualty Crashes | 0 | 0 | - |
| Right Through Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 0 | 2 | Increase |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 February 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 3 years and 256 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 1 | Increase |
| Serious Injuries | 4 | 1 | $\downarrow$ 66\% |
| Moderate Injuries | 8 | 1 | $\downarrow$ 83\% |
| Minor / Other Injuries | 8 | 1 | $\downarrow$ 83\% |
| Total Casualties: | 20 | 4 | $\downarrow 73 \%$ |
| Pedestrian Casualties | 2 | 1 | $\downarrow$ 32\% |
| Casualty Crashes | 10 | 4 | $\downarrow$ 46\% |
| Adjacent Casualty Crashes | 3 | 1 | $\downarrow$ 55\% |
| Right Through Casualty Crashes | 5 | 1 | $\downarrow 73 \%$ |
| Rear End Casualty Crashes | 1 | 0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 18 January 2011
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 3 years and 200 <br> days after installation | Percentage <br> change $^{3}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 4 | 7 | $\uparrow 147 \%$ |
| Moderate Injuries | 7 | 3 | $\downarrow 40 \%$ |
| Minor / Other Injuries | 7 | 4 | $\downarrow 19 \%$ |
| Total Casualties: | 18 | 14 | $\uparrow 10 \%$ |
| Pedestrian Casualties | 3 | 1 | $\downarrow 53 \%$ |
| Casualty Crashes | 3 | 12 | $\downarrow 1 \%$ |
| Adjacent Casualty Crashes | 9 | 4 | $\uparrow 88 \%$ |
| Right Through Casualty Crashes | 0 | 2 | $\downarrow 22 \%$ |
| Rear End Casualty Crashes | Increase |  |  |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 15 March 2011
${ }^{2}$ Ending 31 December 2014
${ }^{3}$ 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



## 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.
- While the results available so far suggest a slight decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 <br> installation $^{1}$ | 1 year and 74 days <br> after installation | Percentage $_{\text {change }^{3}}$ |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Moderate Injuries | 1 | 0 | $\downarrow 100 \%$ |
| Minor / Other Injuries | 1 | 0 | $\downarrow 100 \%$ |
| Total Casualties: | 9 | 0 | $\downarrow 100 \%$ |
| Pedestrian Casualties | 0 | 0 | - |
| Casualty Crashes | 8 | 0 | $\downarrow 100 \%$ |
| Adjacent Casualty Crashes | 5 | 0 | $\downarrow 100 \%$ |
| Right Through Casualty Crashes | 0 | 0 | $\downarrow 100 \%$ |
| Rear End Casualty Crashes | 3 | 0 | - |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 19 July 2013
2 Ending 31 December 2014
${ }^{3}$ 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



## 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.
- A longer period of time is required to assess the effectiveness of the camera
- The infringement graphs show the number of warning letters and infringements issued at this intersection 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 <br> installation |  |
| :--- | :---: | :---: |
| Fatalities | 0 | 159 days after <br> installation $^{2}$ |
| Serious Injuries | 6 | 0 |
| Moderate Injuries | 8 | 0 |
| Minor / Other Injuries | 7 | 0 |
| Total Casualties: | 21 | 0 |
| Pedestrian Casualties | 0 | 0 |
| Casualty Crashes | 15 | 0 |
| Adjacent Casualty Crashes | 9 | 0 |
| Right Through Casualty Crashes | 4 | 0 |
| Rear End Casualty Crashes | 0 | 0 |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 25 April 2014
${ }^{2}$ Ending 31 December 2014


Infringements at enforced intersection



## 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.
- While the results to date indicate a decrease in casualty crashes, a more comprehensive analysis over a longer time period is required before making any conclusions about the effectiveness of the camera.
- 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 ${ }^{1}$ | 4 years and 184 days after installation ${ }^{2}$ | Percentage change ${ }^{3}$ |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Serious Injuries | 7 | 4 | $\downarrow$ 37\% |
| Moderate Injuries | 14 | 6 | $\downarrow 52 \%$ |
| Minor / Other Injuries | 24 | 7 | $\downarrow$ 68\% |
| Total Casualties: | 45 | 17 | $\downarrow 58 \%$ |
| Pedestrian Casualties | 3 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | 34 | 14 | $\downarrow$ 54\% |
| Adjacent Casualty Crashes | 5 | 3 | $\downarrow$ 33\% |
| Right Through Casualty Crashes | 9 | 4 | $\downarrow 51 \%$ |
| Rear End Casualty Crashes | 7 | 3 | $\downarrow 52 \%$ |

${ }^{1}$ Ending 91 days before the start of the warning letter period, 31 March 2010
2 Ending 31 December 2014
${ }^{3}$ 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



## B. 2 Red-light 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 red-light speed camera locations with the highest number of infringements detected in 2014, detailed in the table below. High infringing fixed speed cameras are detailed separately in Appendix C. As the red-light speed camera program has not been in operation for five years, it is too early to assess the effectiveness of these cameras.

All of the 10 red-light speed camera locations are on main roads with high traffic volumes. Where cameras have been operating for longer than two years, the infringement data indicates that infringements have mostly decreased when comparing 2014 infringements to 2013.This trend is to be expected, as the fixed speed camera program has shown that high infringement rates decrease over time.

Across the red-light speed camera program, around 60 per cent of infringements at red-light speed camera locations are attributed to running a red light. 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 red-light infringements and four having a higher proportion of speeding infringements.

Compliance data 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.

Road signs at all enforced intersections were improved in late 2012. 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.

While the cameras at the 10 highest infringing locations will not be considered for removal, CRS will review these locations to identify, and where appropriate address, any road safety issues contributing to the high number of infringements.

Table B1: Red-light speed camera locations with the most infringements

| Location | Number of cameras | Total infringements issued 2013 | Total infringements issued 2014 | \% comprising red light and speed infringements of 2014 total | Compliance rate in 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Haymarket - George Street at Pitt Street / Quay Street (June,2013) | 2 | 6,981 | 10,511 | 94.7\% red-light $5.3 \%$ speed | 99.92\% |
| Ultimo - Wattle Street at William Henry Street (June,2011) | 1 | 2,989 | 9,573 | 17.3\% red-light <br> 82.7\% speed | 99.90\% |
| Darlinghurst - Craigend Street at McLachlan Avenue <br> (August,2010) | 1 | 7,263 | 8,487 | 28.0\% red-light 72.0\% speed | 99.95\% |
| North Ryde - Cox's Road at Lane Cove Road (school zone) (April,2013) | 3 | 3,967 | 8,103 | 27.2\% red-light <br> 72.8\% speed | 99.96\% |
| Bankstown - Stacey Street at Hume Highway (April,2013) | 1 | 5,626 | 7,436 | 95.2\% red-light <br> 4.8\% speed | 99.91\% |
| Thornleigh - Pennant Hills Road at Parkes Street (December,2010) | 1 | 5,058 | 6,481 | 88.9\% red-light <br> $11.1 \%$ speed | 99.95\% |
| Granville - Woodville Road at M4 westbound on-ramp <br> (September,2010) | 1 | 6,833 | 5,556 | 89.8\% red-light 10.2\% speed | 99.91\% |
| Dee Why - Pittwater Road at Harbord Road (June,2011) | 1 | 4,305 | 5,544 | 79.7\% red-light 20.3\% speed | 99.92\% |
| Haberfield - Parramatta Road at Sloane Street (June,2011) | 1 | 7,847 | 5,310 | 7.0\% red-light 93.0\% speed | 99.94\% |
| Lansdowne / Villawood - Henry Lawson Drive / Woodville Road at Hume Highway (August,2010) | 2 | 6,826 | 5,014 | 70.0\% red-light 30.0\% speed | 99.94\% |

# C. Appendix B: Analysis of the NSW fixed speed camera program 

## C. 1 Overview of fixed speed camera locations

|  | Location |
| :---: | :---: |
| 1 | Ashfield |
| 2 | Auburn |
| 3 | Bankstown |
| 4 | Bar Point |
| 5 | Ben Lomond |
| 6 | Berkshire Park |
| 7 | Berry |
| 8 | Beverly Hills |
| 9 | Bexley North |
| 10 | Blandford |
| 11 | Bomaderry |
| 12 | Bonnyrigg |
| 13 | Bonnyrigg |
| 14 | Bonville |
| 15 | Brogo |
| 16 | Bulli |
| 17 | Burringbar |
| 18 | Burwood Heights |
| 19 | Camellia |
| 20 | Canterbury |
| 21 | Caringbah |
| 22 | Carlingford |
| 23 | Castle Hill |
| 24 | Charmhaven |
| 25 | Concord West |
| 26 | Condell Park |
| 27 | Corrimal |
| 28 | East Gardens/ Maroubra |
| 29 | Edgecliff |
| 30 | Ewingsdale |
| 31 | Fairfield East |
| 32 | Foxground |
| 33 | Gateshead |
| 34 | Greystanes |
| 35 | Guildford |
| 36 | Gwynneville |
| 37 | Gwynneville |
| 38 | Hartley |
| 39 | Hungry Head |
| 40 | Hurstville |
| 41 | Kingswood |
| 42 | Kogarah |
| 43 | Korora |
| 44 | Kurrajong |
| 45 | Lane Cove |
| 46 | Lansvale |
| 47 | Lindfield |
| 48 | Liverpool |
| 49 | Lochinvar |
| 50 | Maroubra |
| 51 | Mayfield West |
| 52 | Merrylands |
| 53 | Miranda |
| 54 | Moore Park |
| 55 | Mosman |
| 56 | Narrabeen |
| 57 | New Italy |
| 58 | Nords Wharf |
| 59 | North Curl Curl |
| 60 | North Macksville |
| 61 | North Narrabeen |
| 62 | North Parramatta |
| 63 | North Parramatta / Oatlands |
| 64 | North Wollongong |
| 65 | Old Guildford |
| 66 | Ourimbah |
| 67 | Ourimbah |
| 68 | Padstow |
| 69 | Peakhurst |

Road
Hume Highway, between Murrell Street and Queen Street Parramatta Road, between Harbord Street and Duck Stree Hume Highway, between Rookwood Road and Stacey Street M1 Pacific Motorway, between Jolls Bridge and Mt White Exit Ramp New England Highway, between Ross Road and Ben Lomond Road Richmond Road, between Llandilo Road and Sanctuary Drive Princes Highway, between Kangaroo Valley Road and Victoria Street King Georges Road, between Stoney Creek Road and Edgbaston Road Bexley Road, between Kingsland Road North and Miller Avenue New England Highway, between Hayles Street and Mills Street Bolong Road, between Beinda Street and Coomea Street Elizabeth Drive, between Brown Road and Humphries Road Cabramatta Road, between Katinka Street and Tarlington Parade Pine Creek Way, between Bonville Creek and Bonville Station Road Princes Highway, between Pioneer Close and Brogo River Princes Highway, between Grevillea Park Road and Black Diamond Place Tweed Valley Way, between Blakeneys Road and Cooradilla Road Hume Highway, between Kelso Street and Appian Way James Ruse Drive, between Victoria Road and Grand Avenue North Canterbury Road, between Gould Street and Jeffrey Street Captain Cook Drive, between Cawarra Road and Gannons Road Pennant Hills Road, between Evans Road and Coleman Avenue Old Northern Road, between Telfer Road and Brisbane Road Pacific Highway, between Wallarah Creek and Lowana Avenue Concord Road, between Nirranda Street and Mepunga Street Edgar Street, between Augusta Street and Upper Railway Parade Northern Distributor (Memorial Drive), between Towradgi Road and Railway Bunnerong Road, between Fitzgerald Avenue and Smith Street New South Head Road, between Waratah Street and New Beach Road Pacific Highway, between St Helena Road and Ewingsdale Road. Fairfield Street, between Scott Street and Mandarin Street Princes Highway, between Foxground Road and Broughton Creek Pacific Highway, between Sydney Street and Macquarie Avenue Greystanes Road, between Merrylands Road and Old Prospect Road Woodville Road, between Kenelda Avenue and Osgood Street M1 Princes Motorway, between Northern Distributor Overpass and Gipps M1 Princes Motorway, University Avenue Overpass and Mount Ousley Road Great Western Highway, between Mid Hartley Road and Blackmans Creek Pacific Highway, between Boundary Road and Ballards Road Forest Road, between Lily Street and Cronulla Street Parker Street, between Copeland Street and Gascoigne Street Princes Highway, between Gray Street and President Avenue Pacific Highway, between Bruxner Park Road and Korora Basin Road Bells Line of Road, between Queen Street and Bellbird Avenue Centennial Avenue, between Gentle Street and Figtree Street Hume Highway, between Henry Lawson Drive and Knight Street Pacific Highway, between Eton Road and Gladstone Parade Bigge Street, between Elizabeth Drive and Campbell Street New England Highway, between Robert Road and Station Lane Malabar Road, between Mons Avenue and Duncan Street Pacific Highway, between Werribee Street and Tourle Street Merrylands Road, between Chetwynd Road and Davies Street Kingsway, between Sylva Avenue and University Road Cleveland Street, between Anzac Parade and South Dowling Street Macpherson Street, between Ourimbah Road and Montague Road Pittwater Road, between Ocean Street and Devitt Street Pacific Highway, between New Italy Road and Turners Road Pacific Highway, between Nords Wharf Road and Flowers Drive Harbord Road, between Abbott Road and Brighton Street Pacific Highway, between Lawrence Wilmont Drive and Watt Creek Pittwater Road, between Garden Street and Namona Street Pennant Hills Road, between Castle Street and Bellevue Street Pennant Hills Road, between Masons Drive and Suttor Avenue Princes Highway, between Ajax Avenue and Exeter Avenue Woodville Road, between Orchardleigh Street and Middleton Road M1 Pacific Motorway, between Dogtrap Road Overpass and Ourimbah Pacific Highway, between Yates Road and Dog Trap Road Gibson Avenue, between Turvey Street and Bryant Street, Padstow Henry Lawson Drive, between Belmont Road and Ogilvy Street

|  | Location | Road |
| :--- | :--- | :--- |
| 70 | Penshurst | Forest Road, between Penshurst Street and St Georges Street |
| 71 | Picnic Point | Henry Lawson Drive, between Carinya Road and The River Road |
| 72 | Queanbeyan | Lanyon Drive, between Tompsitt Drive and Hoover Road |
| 73 | Randwick | Avoca Street, between Howard Street and Barker Road |
| 74 | Rankin Park | McCaffrey Drive, between Duval Street and Orara Street |
| 75 | Rosebery/Alexandria | Botany Road, between Gardeners Road and Gillespie Street |
| 76 | Rydalmere | Victoria Road, between Park Road and John Road |
| 77 | Ryde | Blaxland Road, between Reservoir Lane and North Road |
| 78 | Ryde | Victoria Road, between Margaret Street and Cressy Road |
| 79 | South Windsor | George Street, between Rickaby Street and Yarrawonga Street |
| 80 | Strathfield | The Boulevarde, between Torrington Parade and Russell Street |
| 81 | Tenterfield | New England Highway, between Duncan Street and George Street |
| 82 | Terrigal | Terrigal Drive, between Brunswick Road and Bellbird Avenue |
| 83 | Toongabbie | Fitzwilliam Road, between Reynolds Street and Binalong Road |
| 84 | Valla Beach | Pacific Highway, between Valla Beach Road and Oyster Creek |
| 85 | Valley Heights | Great Western Highway, between The Valley Road and Sun Valley Road |
| 86 | Wahroonga | Pacific Highway, between Gilda Avenue and Woodville Avenue |
| 87 | Wardell | Pacific Highway, between Riverside Drive and Carlisle Street |
| 88 | Warrawong | Northcliffe Drive, between Griffin Street and Kully Street |
| 89 | West Pennant Hills | Castle Hill Road, between Pennant Hills Road and Coonara Avenue |
| 90 | Wollongbar | Bruxner Highway, between Convernys Lane and McLeans Ridges Road |
| 91 | Wollongong | Princes Highway, between Mount Keira Road and Highway Avenue |
| 92 | Woodburn | Pacific Highway, between Wagner Street and Norman Street |
| 93 | Wyoming | Henry Parry Drive, between Glennie Street and Dwyer Street |
| 94 | Yagoona | Hume Highway, between Smith Street and Brennan Avenue |
|  |  |  |

## High risk locations

|  | Location | Road |
| :--- | :--- | :--- |
| 95 | Bardwell Park/Arncliffe | M5 Motorway |
| 96 | Darlinghurst | Eastern Distributor |
| 97 | Lane Cove | Lane Cove Tunnel |
| 98 | Sydney | Sydney Harbour Tunnel |
| 99 | Woolloomooloo/East Sydney | Cross City Tunnel |

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

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Changene ${ }^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 7 May 2007, 3 calendar months before installation
${ }^{2}$ 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 : Retained based on 2013 comprehensive review

- When comparing the pre installation period to the most recent five year period, there has been a $13 \%$ increase in casualty crashes and a $35 \%$ increase in casualties at this fixed speed camera location The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 | Increase <br> Change $^{2}$ |
| Total Injuries | 79 | 19 | $\downarrow 76 \%$ |
| Serious |  | 7 |  |
| Moderate | 79 | 8 |  |
| Minor/Other | 57 |  | 19 |
| Uncategorised | $\$ 10.96 \mathrm{M}$ | $\$ 9.85 \mathrm{M}$ | $\downarrow 10 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 15 February 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $67 \%$ decrease in casualty crashes and a $75 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

School zone: Bankstown North Public School, La Salle Catholic School
This location is 670 m 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 <br> installation | Calendar years <br> 2010 2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 65 | 67 | $\uparrow 3 \%$ |
| Serious | 4 | 12 |  |
| Moderate | 12 | 37 |  |
| Minor/Other | 41 |  |  |
| Uncategorised | 52 | $\$ 6.79 \mathrm{M}$ | $\downarrow 16 \%$ |
| Casualty Crashes | $\$ 8.05 \mathrm{M}$ |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 4 April 2007, 3 calendar months before installation.
2 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 : Retained based on 2013 comprehensive review

- When comparing the pre installation period to the most recent five year period, there has been a $23 \%$ decrease in casualty crashes and a $3 \%$ increase in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 16 | 12 | $\downarrow 25 \%$ |
| Serious | 0 | 0 |  |
| Moderate | 0 | 7 |  |
| Minor/Other | 0 | 5 |  |
| Uncategorised | 16 |  |  |
| Casualty Crashes | 15 | 11 | $\downarrow 27 \%$ |
| Casualty Cost: | \$9.31M | \$0.72M | $\downarrow$ 92\% |

${ }^{1}$ Ending 10 January 2006, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $27 \%$ decrease in casualty crashes and a $29 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 0 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 8 |  |  |
| Casualty Crashes | 5 | 0 | $\downarrow 100 \%$ |
| Casualty Cost: | \$15.29M | \$0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 4 June 2003, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a 100\% decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 4 years before } \\ \text { installation }\end{array}$ |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| Cotal Injuries | 18 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 30 March 2000, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been an $8 \%$ decrease in casualty crashes and a $12 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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 fount that the speed camera continues to provide safety benefits and it was recommended that the speed camera be retained.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 8 | 4 | $\downarrow 50 \%$ |
| Serious |  | 2 |  |
| Moderate |  | 2 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 8 |  |  |
| Casualty Crashes | 5 | 4 | $\downarrow 20 \%$ |
| Casualty Cost: | \$1.11M | \$0.70M | $\downarrow 37 \%$ |

${ }^{1}$ Ending 28 January 2003, 3 calendar months before installation.
2 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: Review following road works

- When comparing the pre installation period to the most recent five year period, there has been a $20 \%$ decrease in casualty crashes and a 50\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 monitored once works are complete and a final decision will be made about the need for ongoing enforcement.




## Beverly Hills - King Georges Road, between Stoney Creek Road and Edgbaston Road

School zone: Beverly Hills Girls High School
This location is 1040 m 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

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 9 April 2007, 3 calendar months before installation
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $38 \%$ decrease in casualty crashes and a $39 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 is 1000 m in length, and is enforced with one camera
The camera commenced operating on 29 May 2006.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 40 | 14 | $\downarrow 65 \%$ |
| Serious | 3 | 6 |  |
| Moderate | 3 | 5 |  |
| Minor/Other | 0 | 3 |  |
| Uncategorised | 34 |  |  |
| Casualty Crashes | 28 | 12 | $\downarrow 57 \%$ |
| Casualty Cost: | \$12.86M | \$2.23M | $\downarrow$ 83\% |

${ }^{1}$ Ending 1 March 2006, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $57 \%$ decrease in casualty crashes and a $66 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| Total Injuries | 3 | 0 | - |
| Serious |  | 0 | $\downarrow 100 \%$ |
| Moderate | 3 | 0 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 3 | 0 | $\downarrow 100 \%$ |
| Casualty Crashes | $\$ 0.42 \mathrm{M}$ | $\$ 0$ | $\downarrow 100 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 10 January 2002, 3 calendar months before installation
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a 100\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 9 | 15 | $\uparrow 67 \%$ |
| Serious |  | 2 |  |
| Moderate |  | 4 |  |
| Minor/Other |  | 9 |  |
| Uncategorised | 9 |  |  |
| Casualty Crashes | 7 | 13 | $\uparrow 86 \%$ |
| Casualty Cost: | \$8.34M | \$1.36M | $\downarrow$ 84\% |

${ }^{1}$ Ending 31 December 2002, 3 calendar months before installation.
2 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: Review

- When comparing the pre installation period to the most recent five year period, there has been an $86 \%$ increase in casualty crashes and a 50\% increase in casualties at this fixed speed camera location. The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 has been identified for review. It is noted that an increase in traffic volumes may be occurring at this location in conjunction with the nearby construction work on the Foxground and Berry bypass. Any changes to conditions will be taken into consideration in the review of the speed camera at this location.




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

School zone: Bonnyrigg High School, Our Lady of Mt Carmel Primary School
This location is 1000 m (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 <br> installation | Calendar years <br> 2010-2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 49 | 16 | $\downarrow 67 \%$ |
| Serious | 6 | 6 |  |
| Moderate | 12 | 6 |  |
| Minor/Other | 5 | 26 | 15 |
| Uncategorised | 24 | $\$ 2.35 \mathrm{M}$ | $\downarrow 63 \%$ |
| Casualty Crashes | $\$ 6.38 \mathrm{M}$ |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 17 July 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $38 \%$ decrease in casualty crashes and a $67 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 4 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 2 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 18 | 24 | $\uparrow 700 \%$ |

${ }^{1}$ Ending 7 April 2000, 3 calendar months before installation.
2 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: Retained following 2015 preliminary review

- When comparing the pre installation period to the most recent five year period, there has been a $13 \%$ increase in casualty crashes and a 4\% decrease in casualties at this fixed speed camera location. The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 camera commencing speed enforcement of both directions of traffic where it previously enforced on
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 due to the increase in casualty crashes. There has, however, been a reduction in casualties, including a reduction in fatalities from 2 in the four years prior to the camera being installed to zero in the last five years. Based on this information it was decided to retain the camera.




## Bonville - Pine Creek Way, between Bonville Creek and Bonville Station Road

This location is 1000 m in length, and is enforced with one camera
The camera commenced operating on 16 December 2005.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 11 | 1 | $\downarrow$ 91\% |
| Serious | 4 | 1 |  |
| Moderate | 1 | 0 |  |
| Minor/Other | 0 | 0 |  |
| Uncategorised | 6 |  |  |
| Casualty Crashes | 5 | 1 | $\downarrow$ 80\% |
| Casualty Cost: | \$9.15M | \$0.29M | $\downarrow$ 97\% |

${ }^{1}$ Ending 16 September 2005, 3 calendar months before installation.
2 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: Remove

- When comparing the pre installation period to the most recent five year period, there has been an $80 \%$ decrease in casualty crashes and a $92 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 has been identified for removal. This camera is located on a section of road that was formerly the Pacific Highway, that has been bypassed, has a recent crash history that shows few casualties, a low level of speeding infringements and has had community representations requesting its removal.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| Total Injuries | 3 | 0 | - |
| Serious |  | 0 | $\downarrow 100 \%$ |
| Moderate | 3 | 0 |  |
| Minor/Other | 2 | 0 | $\downarrow 100 \%$ |
| Uncategorised | $\$ 0.42 \mathrm{M}$ | $\$ 0$ | $\downarrow 100 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  | 0 |

${ }^{1}$ Ending 2 February 2003, 3 calendar months before installation.
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: Review

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a 100\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 has been identified for review. It has been identified that there is a low road safety risk at this location based on the casualty crash data and there is a low level of speeding infringements




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| Total Injuries | 29 | 15 | $\downarrow 100 \%$ |
| Serious |  | 4 | $\downarrow 48 \%$ |
| Moderate | 29 | 6 |  |
| Minor/Other | 26 | 5 | 12 |
| Uncategorised | $\$ 11.11 \mathrm{M}$ | $\$ 1.83 \mathrm{M}$ | $\downarrow 84 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 4 September 2001, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $54 \%$ decrease in casualty crashes and a $50 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 3 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 3 | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| Total Injuries | 4 | 2 | $\downarrow 100 \%$ |
| Serious |  | 1 | $\downarrow 70 \%$ |
| Moderate | 4 | 1 |  |
| Minor/Other | 4 | 2 | $\downarrow 70 \%$ |
| Uncategorised | $\$ 21.83 \mathrm{M}$ | $\$ 0.35 \mathrm{M}$ | $\downarrow 99 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 2 January 1999, 3 calendar months before installation.
2 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: Review

- When comparing the pre installation period to the most recent five year period, there has been a $70 \%$ decrease in casualty crashes and an $83 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 has been identified for review. This camera is located on a section of road that was formerly the Pacific Highway, that has been bypassed. While there are 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




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation 1 | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 50 | 28 | $\downarrow 44 \%$ |
| Serious |  | 3 |  |
| Moderate | 50 | 8 |  |
| Minor/Other | 37 | 21 | $\downarrow 43 \%$ |
| Uncategorised | $\$ 6.94 \mathrm{M}$ | $\$ 2.37 \mathrm{M}$ | $\downarrow 66 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 5 September 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $43 \%$ decrease in casualty crashes and a $44 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 56 | 27 | $\downarrow$ 52\% |
| Serious |  | 13 |  |
| Moderate |  | 4 |  |
| Minor/Other |  | 10 |  |
| Uncategorised | 56 |  |  |
| Casualty Crashes | 36 | 20 | $\downarrow$ 44\% |
| Casualty Cost: | \$14.86M | \$4.63M | $\downarrow 69 \%$ |

${ }^{1}$ Ending 6 September 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a 44\% decrease in casualty crashes and a $53 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 91 | 35 | $\downarrow 62 \%$ |
| Serious |  | 4 |  |
| Moderate |  | 18 |  |
| Minor/Other |  | 13 |  |
| Uncategorised | 91 |  |  |
| Casualty Crashes | 74 | 28 | $\downarrow$ 62\% |
| Casualty Cost: | \$19.71M | \$3.02M | $\downarrow$ 85\% |

${ }^{1}$ Ending 19 January 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $62 \%$ decrease in casualty crashes and a $62 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 22 | 9 | $\downarrow 59 \%$ |
| Serious |  | 5 |  |
| Moderate |  | 1 |  |
| Minor/Other |  | 3 |  |
| Uncategorised | 22 |  |  |
| Casualty Crashes | 15 | 7 | $\downarrow 53 \%$ |
| Casualty Cost: | \$10.14M | \$1.70M | $\downarrow$ 83\% |

${ }^{1}$ Ending 12 January 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $53 \%$ decrease in casualty crashes and a $61 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation 1 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 55 | 27 | $\downarrow 51 \%$ |
| Serious |  | 9 |  |
| Moderate | 55 | 10 |  |
| Minor/Other | 42 | 22 | $\downarrow 48 \%$ |
| Uncategorised | $\$ 7.63 \mathrm{M}$ | $\$ 3.70 \mathrm{M}$ | $\downarrow 51 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 16 May 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $48 \%$ decrease in casualty crashes and a $51 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




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

School zone: St Bernadette's Primary School
This location is 430 m 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 <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 8 | 6 | - |
| Serious | 1 | 2 |  |
| Moderate | 0 | 3 |  |
| Minor/Other | 2 | 1 |  |
| Uncategorised | 5 | 7 | 5 |
| Casualty Crashes | $\$ 1.11 \mathrm{M}$ | $\$ 0.82 \mathrm{M}$ | $\downarrow 26 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 18 February 2007, 3 calendar months before installation
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $29 \%$ decrease in casualty crashes and a $25 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 21 | 19 | - |
| Serious | 4 | 4 |  |
| Moderate | 4 | 8 |  |
| Minor/Other | 1 | 7 |  |
| Uncategorised | 12 | 17 | $\$ 2.07 \mathrm{M}$ |
| Casualty Crashes | $\$ 3.13 \mathrm{M}$ | $\downarrow 34 \%$ |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 10 January 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $29 \%$ decrease in casualty crashes and a 10\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 4 years before <br> installation 1 | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 22 | 25 | $\downarrow 9 \%$ |

${ }^{1}$ Ending 24 April 2000, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $1 \%$ decrease in casualty crashes and a 9\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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



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

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 24 July 2007, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $69 \%$ decrease in casualty crashes and a $73 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

This location is 1000 m 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 <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| Total Injuries | 29 | 1 | $0 \%$ |
| Serious |  | 24 | $\downarrow 17 \%$ |
| Moderate | 29 | 41 |  |
| Minor/Other | 19 | 9 | 18 |
| Uncategorised | $\$ 11.11 \mathrm{M}$ | $\$ 11.08 \mathrm{M}$ | $0 \%$ |
| Casualty Crashes |  |  | $\downarrow 5 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 11 April 2002, 3 calendar months before installation.
2 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 : Retained based on 2012 comprehensive safety review

- When comparing the pre installation period to the most recent five year period, there has been a $5 \%$ decrease in casualty crashes and a 17\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 speedrelated and it is unlikely that the speed camera would have reduced these crashes.



## East Gardens/ Maroubra - Bunnerong Road, between Fitzgerald Avenue and Smith Street

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 20 March 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $50 \%$ decrease in casualty crashes and a $56 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 is 1000 m in length, and is enforced with one camera.
The camera commenced operating on 7 December 2001.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 43 | 44 | $\uparrow 2 \%$ |
| Serious |  | 12 |  |
| Moderate |  | 18 |  |
| Minor/Other |  | 14 |  |
| Uncategorised | 43 |  |  |
| Casualty Crashes | 37 | 36 | $\downarrow$ \% |
| Casualty Cost: | \$5.96M | \$5.42M | $\downarrow$ ¢\% |

${ }^{1}$ Ending 7 September 2001, 3 calendar months before installation.
2 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 : Retained based on 2012 comprehensive safety review

- When comparing the pre installation period to the most recent five year period, there has been a $3 \%$ decrease in casualty crashes and a $2 \%$ increase in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 23 | 1 | $\downarrow 96 \%$ |
| Serious | 2 | 0 |  |
| Moderate | 0 | 1 |  |
| Minor/Other | 3 | 0 |  |
| Uncategorised | 18 |  |  |
| Casualty Crashes | 14 | 1 | $\downarrow 93 \%$ |
| Casualty Cost: | \$10.35M | \$0.06M | $\downarrow 99 \%$ |

${ }^{1}$ Ending 22 June 2006, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $93 \%$ decrease in casualty crashes and a $96 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation 1 | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 22 | 28 | $\uparrow 27 \%$ |
| Serious |  | 5 |  |
| Moderate | 22 | 10 |  |
| Minor/Other | 16 | 13 |  |
| Uncategorised | $\$ 10.14 \mathrm{M}$ | $\$ 2.84 \mathrm{M}$ | $\downarrow 72 \%$ |
| Casualty Crashes |  |  | $\uparrow 6 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 4 April 2002, 3 calendar months before installation.
2 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 : Retained based on 2013 comprehensive review

- When comparing the pre installation period to the most recent five year period, there has been a 6\% increase in casualty crashes and a $22 \%$ increase in casualties at this fixed speed camera location. The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 11 | 7 | $\downarrow 36 \%$ |
| Serious |  | 5 |  |
| Moderate |  | 2 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 11 |  |  |
| Casualty Crashes | 8 | 5 | $\downarrow 38 \%$ |
| Casualty Cost: | \$8.62M | \$1.58M | $\downarrow$ 82\% |

${ }^{1}$ Ending 9 February 2003, 3 calendar months before installation.
2 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: Review following road works

- When comparing the pre installation period to the most recent five year period, there has been a $38 \%$ decrease in casualty crashes and a 42\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 monitored once works are complete and a final decision will be made about the need for ongoing enforcement.




## 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 820 m (patch to patch) in length, and is enforced with one camera.
The camera commenced operating on 30 May 2000.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 4 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{\text {Change }}{ }^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 1 March 2000, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $60 \%$ decrease in casualty crashes and a $60 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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



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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 15 | 12 | - |
| Serious |  | 3 |  |
| Moderate |  | 2 |  |
| Minor/Other | 15 | 9 |  |
| Uncategorised | 13 | $\$ 2.08 \mathrm{M}$ | $\$ 1.41 \mathrm{M}$ |
| Casualty Crashes |  |  | $\downarrow 32 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 30 August 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $31 \%$ decrease in casualty crashes and a $20 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




## Guildford - Woodville Road, between Kenelda Avenue and Osgood Street

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 16 February 2007, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $21 \%$ decrease in casualty crashes and a $35 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| Cotal Injuries | 7 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 7 May 2003, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $33 \%$ decrease in casualty crashes and a $63 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.



Gwynneville - M1 Princes Motorway, between Northern Distributor Overpass and Gipps Road Overpass (northbound)
This location is 1000 m in length, and is enforced with one camera
The camera commenced operating on 7 August 2003.

Casualties and Casualty Crashes

|  | 5 years before <br> installation 1 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 32 | 5 | $\downarrow 84 \%$ |
| Serious |  | 2 |  |
| Moderate | 32 | 2 |  |
| Minor/Other | 15 | 4 | $\downarrow 73 \%$ |
| Uncategorised | $\$ 4.44 \mathrm{M}$ | $\$ 0.76 \mathrm{M}$ | $\downarrow 83 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 7 May 2003, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $73 \%$ decrease in casualty crashes and an $84 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 4 years before <br> installation 1 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 1 | Increase |
| Total Injuries | 4 | 7 | $\uparrow 40 \%$ |
| Serious |  | 2 |  |
| Moderate | 4 | 2 |  |
| Minor/Other |  | 3 | 3 |
| Uncategorised | $\$ 0.55 \mathrm{M}$ | $\$ 7.97 \mathrm{M}$ | $\uparrow 1050 \%$ |
| Casualty Crashes |  |  | $\downarrow 20 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 6 September 2000, 3 calendar months before installation.
2 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: Review following road works

- When comparing the pre installation period to the most recent five year period, there has been a $20 \%$ decrease in casualty crashes and a $60 \%$ increase in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 recommended for review in the 2014 annual speed camera review. This location will be reviewed following the current road works which are due to be completed in 2016 at this location




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 2 | 10 | $\uparrow 400 \%$ |
| Serious |  | 4 |  |
| Moderate |  | 6 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 2 |  |  |
| Casualty Crashes | 2 | 5 | $\uparrow 150 \%$ |
| Casualty Cost: | \$7.37M | \$1.53M | $\downarrow 79 \%$ |

${ }^{1}$ Ending 25 August 2002, 3 calendar months before installation
2 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 : Retained based on 2012 comprehensive safety review

- When comparing the pre installation period to the most recent five year period, there has been a $150 \%$ increase in casualty crashes and a $233 \%$ increase in casualties at this fixed speed camera location.The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 is bypassed as part of the Pacific Highway upgrade.




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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 17 July 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $22 \%$ decrease in casualty crashes and a $33 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.



## Kingswood - Parker Street, between Copeland Street and Gascoigne Street

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{\text {Change }^{2}}$ |  |  |  |$]$

Ending 28 October 2008, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $29 \%$ decrease in casualty crashes and a $57 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.



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 990 m (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 installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 69 | 47 | $\downarrow 32 \%$ |
| Serious |  | 8 |  |
| Moderate |  | 22 |  |
| Minor/Other |  | 17 |  |
| Uncategorised | 69 |  |  |
| Casualty Crashes | 54 | 36 | $\downarrow 33 \%$ |
| Casualty Cost: | \$16.66M | \$4.67M | $\downarrow 72 \%$ |

${ }^{1}$ Ending 15 April 2003, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $33 \%$ decrease in casualty crashes and a $33 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.



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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 6 | 2 | $\downarrow 67 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 2 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 6 |  |  |
| Casualty Crashes | 7 | 1 | $\downarrow$ 86\% |
| Casualty Cost: | \$7.92M | \$0.12M | $\downarrow 98 \%$ |

${ }^{1}$ Ending 20 November 2002, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been an $86 \%$ decrease in casualty crashes and a $71 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 $100 \mathrm{~km} / \mathrm{h}$ to $80 \mathrm{~km} / \mathrm{h}$. Roadworks and camera maintenance may influence the number of infringements issued.




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

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

Casualties and Casualty Crashes

|  | 4 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 6 | 3 | $\downarrow$ 60\% |
| Serious |  | 2 |  |
| Moderate |  | 0 |  |
| Minor/Other |  | 1 |  |
| Uncategorised | 6 |  |  |
| Casualty Crashes | 4 | 1 | $\downarrow$ 80\% |
| Casualty Cost: | \$0.83M | \$0.64M | $\downarrow 38 \%$ |

${ }^{1}$ Ending 22 February 2000, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been an $80 \%$ decrease in casualty crashes and a $60 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 21 | 13 | $\downarrow 38 \%$ |
| Serious |  | 4 |  |
| Moderate |  | 5 |  |
| Minor/Other |  | 4 |  |
| Uncategorised | 21 |  |  |
| Casualty Crashes | 21 | 13 | $\downarrow 38 \%$ |
| Casualty Cost: | \$10.00M | \$1.71M | $\downarrow$ 83\% |

${ }^{1}$ Ending 10 September 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $38 \%$ decrease in casualty crashes and a $41 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 2 | 1 | Percentage <br> Change $^{2}$ |
| Total Injuries | 69 | 33 | $\downarrow 50 \%$ |
| Serious |  | 4 |  |
| Moderate |  | 9 |  |
| Minor/Other | 69 | 20 |  |
| Uncategorised | 53 | $\$ 26$ | $\downarrow 51 \%$ |
| Casualty Crashes | $\$ 23.75 \mathrm{M}$ | $\$ 9.99 \mathrm{M}$ | $\downarrow 58 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 5 September 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $51 \%$ decrease in casualty crashes and a $52 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

School zone: Lindfield Primary School
This location is 480 m (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 <br> installation | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 9 | 6 | $\downarrow 33 \%$ |

${ }^{1}$ Ending 9 April 2007, 3 calendar months before installation
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $38 \%$ decrease in casualty crashes and a $33 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 14 August 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $57 \%$ decrease in casualty crashes and a $62 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 4 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 9 February 2000, 3 calendar months before installation
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $47 \%$ decrease in casualty crashes and a $47 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

School zone: St Mary and St Joseph's Primary, Maroubra Bay
This location is 680 m (patch to patch) in length, and is enforced by 2 cameras.
Both cameras commenced operating on 20 June 2007.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 20 March 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes and an $8 \%$ decrease in casualties at this fixed speed camera location. The change in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 52 | 38 | $\downarrow 27 \%$ |
| Serious |  | 7 |  |
| Moderate |  | 13 |  |
| Minor/Other |  | 18 |  |
| Uncategorised | 52 |  |  |
| Casualty Crashes | 38 | 27 | $\downarrow 29 \%$ |
| Casualty Cost: | \$7.21M | \$3.90M | $\downarrow$ 46\% |

${ }^{1}$ Ending 23 September 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $29 \%$ decrease in casualty crashes and a $27 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

School zone: St Margaret Mary's Primary School
This location is 220 m (patch to patch) in length, and is enforced with one camera.
The camera commenced operating on 16 May 2007.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 16 February 2007, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $40 \%$ decrease in casualty crashes and a $47 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## 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 <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{\text {Change }}$ |  |  |  |

Ending 7 August 2007, 3 calendar months before installation
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

- When comparing the pre installation period to the most recent five year period, there has been a $75 \%$ decrease in casualty crashes and an $81 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

School zone: Sydney Boys High School, Sydney Girls High School
This location is 380 m (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 installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 14 | 4 | $\downarrow 71 \%$ |
| Serious | 3 | 1 |  |
| Moderate | 1 | 1 |  |
| Minor/Other | 5 | 2 |  |
| Uncategorised | 5 |  |  |
| Casualty Crashes | 10 | 4 | $\downarrow$ 60\% |
| Casualty Cost: | \$1.93M | \$0.47M | $\downarrow 76 \%$ |

${ }^{1}$ Ending 14 August 2007, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $60 \%$ decrease in casualty crashes and a $71 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




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

School zone: Middle Harbour Primary School
This location is 320 m (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 <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 6 | 1 | - |
| Serious |  | 0 |  |
| Moderate |  | 0 |  |
| Minor/Other | 6 | 1 | $\downarrow 3 \%$ |
| Uncategorised | 4 | $\$ 0.83 \mathrm{M}$ | $\$ 0.06 \mathrm{M}$ |
| Casualty Crashes |  |  | $\downarrow 93 \%$ |
| Casualty Cost: |  |  |  |

Ending 15 April 2003, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $75 \%$ decrease in casualty crashes and an $83 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Narrabeen - Pittwater Road, between Ocean Street and Devitt Street

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 31 July 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $30 \%$ decrease in casualty crashes and a $43 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## New Italy - Pacific Highway, between New Italy Road and Turners Road

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| Total Injuries | 3 | 0 | - |
| Serious |  | 1 | $\downarrow 67 \%$ |
| Moderate | 3 | 0 |  |
| Minor/Other | 2 | 1 | $\downarrow 50 \%$ |
| Uncategorised | $\$ 0.42 \mathrm{M}$ | $\$ 0.29 \mathrm{M}$ | $\downarrow 30 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 25 April 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $50 \%$ decrease in casualty crashes and a $67 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| Cotal Injuries | 2 | 0 | - |
| Change ${ }^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 27 November 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a 100\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

School zone: Freshwater Senior High School, Manly Selective Campus
This location is 1060 m (patch to patch) in length, and is enforced with one camera.
The camera commenced operating on 31 October 2007.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 31 July 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $20 \%$ decrease in casualty crashes and a $28 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.



## North Macksville - Pacific Highway, between Lawrence Wilmont Drive and Watt Creek

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 3 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 12 | 0 | $\downarrow 100 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 0 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 12 |  |  |
| Casualty Crashes | 6 | 0 | $\downarrow 100 \%$ |
| Casualty Cost: | \$22.94M | \$0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 3 December 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a 100\% decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

School zone: Narrabeen North Public School, Narrabeen Sports High
This location is 590 m (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 installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 11 | 10 | $\downarrow 9 \%$ |
| Serious | 1 | 3 |  |
| Moderate | 4 | 6 |  |
| Minor/Other | 0 | 1 |  |
| Uncategorised | 6 |  |  |
| Casualty Crashes | 8 | 9 | $\uparrow 13 \%$ |
| Casualty Cost: | \$1.36M | \$1.29M | $\downarrow 5 \%$ |

${ }^{1}$ Ending 28 October 2008, 3 calendar months before installation.
2 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: Review

- When comparing the pre installation period to the most recent five year period, there has been a $13 \%$ increase in casualty crashes and a $9 \%$ decrease in casualties at this fixed speed camera location. The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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 has been identified for review due to the increase in casualty crashes at this location.




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

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 17 | 11 | - |
| Serious |  | 6 |  |
| Moderate |  | 2 |  |
| Minor/Other | 17 | $35 \%$ |  |
| Uncategorised | 13 | 9 | $\downarrow 31 \%$ |
| Casualty Crashes | $\$ 2.36 \mathrm{M}$ | $\$ 2.05 \mathrm{M}$ | $\downarrow 13 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 30 August 2001, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $31 \%$ decrease in casualty crashes and a 35\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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



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

## Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Change $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 10 January 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $43 \%$ decrease in casualty crashes and a $56 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




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

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

Casualties and Casualty Crashes

|  | 4 years before <br> installation 1 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 50 | 31 | $\downarrow 50 \%$ |
| Serious |  | 5 |  |
| Moderate | 50 | 8 | 18 |
| Minor/Other | 31 | 26 | $\downarrow 33 \%$ |
| Uncategorised | $\$ 6.94 \mathrm{M}$ | $\$ 3.02 \mathrm{M}$ | $\downarrow 65 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 13 March 2000, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $33 \%$ decrease in casualty crashes and a 50\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

School zone: Old Guildford Public School
This location is 370 m in length, and is enforced by 2 cameras
Both cameras commenced operating on 30 January 2009.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{\text {Change }^{2}}$ |  |  |  |$]$

Ending 30 October 2008, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $47 \%$ decrease in casualty crashes and a $54 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Ourimbah - Pacific Highway, between Yates Road and Dog Trap Road

School zone: Ourimbah Primary School
This location is 360 m (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

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

Ending 15 April 2003, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes and no change in casualties at this fixed speed camera location. The change in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 8 | 3 | $\downarrow 63 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 3 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 8 |  |  |
| Casualty Crashes | 8 | 2 | $\downarrow 75 \%$ |
| Casualty Cost: | \$8.20M | \$0.18M | $\downarrow 98 \%$ |

${ }^{1}$ Ending 6 September 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $75 \%$ decrease in casualty crashes and a $67 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

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

Casualties and Casualty Crashes

|  | 4 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 14 | 10 | $\downarrow$ 43\% |
| Serious |  | 4 |  |
| Moderate |  | 5 |  |
| Minor/Other |  | 1 |  |
| Uncategorised | 14 |  |  |
| Casualty Crashes | 12 | 10 | $\downarrow 33 \%$ |
| Casualty Cost: | \$9.03M | \$1.53M | $\downarrow$ 86\% |

${ }^{1}$ Ending 3 April 2000, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $33 \%$ decrease in casualty crashes and a 47\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




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

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 24 | 12 | $\downarrow 50 \%$ |
| Serious |  | 3 |  |
| Moderate |  | 4 |  |
| Minor/Other |  | 5 |  |
| Uncategorised | 24 |  |  |
| Casualty Crashes | 17 | 11 | $\downarrow 35 \%$ |
| Casualty Cost: | \$3.33M | \$1.41M | $\downarrow 58 \%$ |

${ }^{1}$ Ending 29 October 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $35 \%$ decrease in casualty crashes and a $50 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




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

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 17 July 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $29 \%$ decrease in casualty crashes and a $24 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.



## Picnic Point - Henry Lawson Drive, between Carinya Road and The River Road

This location is 1000 m in length, and is enforced with one camera.
The camera commenced operating on 16 May 2001.

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 6 | 4 | - |
| Serious |  | 0 | $\downarrow 33 \%$ |

${ }^{1}$ Ending 16 February 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $60 \%$ decrease in casualty crashes and a 33\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Queanbeyan - Lanyon Drive, between Tompsitt Drive and Hoover Road

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 1 | 2 | $\uparrow 100 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 0 |  |
| Minor/Other |  | 2 |  |
| Uncategorised | 1 |  |  |
| Casualty Crashes | 2 | 2 | 0\% |
| Casualty Cost: | \$7.23M | \$0.12M | $\downarrow 98 \%$ |

${ }^{1}$ Ending 2 February 2003, 3 calendar months before installation
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: Review

- When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes and no change in casualties at this fixed speed camera location. The change in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 has been identified for review. It has been identified that there is a low road safety risk at this location based on the casualty crash data and there is a low level of speeding infringements




## Randwick - Avoca Street, between Howard Street and Barker Road

School zone: Randwick Boys High School, Randwick Girls High School
This location is 560 m (patch to patch) in length, and is enforced with one camera.
The camera commenced operating on 29 June 2007.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 29 March 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been an $8 \%$ decrease in casualty crashes and a $4 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.



## Rankin Park - McCaffrey Drive, between Duval Street and Orara Street

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 8 | 14 | $\uparrow 75 \%$ |
| Serious |  | 5 |  |
| Moderate |  | 4 |  |
| Minor/Other |  | 5 |  |
| Uncategorised | 8 |  |  |
| Casualty Crashes | 3 | 9 | $\uparrow$ 200\% |
| Casualty Cost: | \$1.11M | \$2.00M | $\uparrow 80 \%$ |

${ }^{1}$ Ending 29 January 2003, 3 calendar months before installation.
${ }^{2}$ 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 : Retained based on 2013 comprehensive review

- When comparing the pre installation period to the most recent five year period, there has been a $200 \%$ increase in casualty crashes and a 75\% increase in casualties at this fixed speed camera location. The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Rosebery/Alexandria - Botany Road, between Gardeners Road and Gillespie Street

School zone: Gardeners Road Public School
This location is 360 m (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 <br> installation | Calendar years <br> 2010 - 2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 15 | 14 | $\downarrow 7 \%$ |
| Serious | 3 | 5 |  |
| Moderate | 0 | 6 |  |
| Minor/Other | 1 |  | 13 |
| Uncategorised | 15 | $\$ 2.00 \mathrm{M}$ | $\downarrow 19 \%$ |
| Casualty Crashes | $\$ 2.46 \mathrm{M}$ |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 13 March 2007, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $13 \%$ decrease in casualty crashes and a $7 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 $60 \mathrm{~km} / \mathrm{h}$ to $50 \mathrm{~km} / \mathrm{h}$. Roadworks and camera maintenance may influence the number of infringements issued




## Rydalmere - Victoria Road, between Park Road and John Road

School zone: Rydalmere Public School
This location is 440 m (patch to patch) in length, and is enforced by 2 cameras.
Both cameras commenced operating on 28 January 2009.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 28 October 2008, 3 calendar months before installation
2 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: Review

- When comparing the pre installation period to the most recent five year period, there has been a $67 \%$ increase in casualty crashes and a $67 \%$ increase in casualties at this fixed speed camera location. The increase in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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 has been identified for review due to the increase in casualties and casualty crashes at this location. It should be noted that there were a large number of non-casualty crashes in the five year before installation period, which are now excluded from the analysis. This indicates that while there are a low number of casualties at this location, there is an identified crash risk, which will be considered in the review of the speed cameras at this location.




## Ryde - Victoria Road, between Margaret Street and Cressy Road

School zone: Holy Cross College Ryde, St Charles School Ryde
This location is 570 m (patch to patch) in length, and is enforced by 2 cameras.
Both cameras commenced operating on 14 November 2007.

Casualties and Casualty Crashes

|  | $\begin{array}{c}\text { 5 years before } \\ \text { installation }\end{array}$ | $\begin{array}{c}\text { Calendar years } \\ \text { 2010 } \\ \text { Count }\end{array}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Percentage $^{2}$ |  |  |  |$]$

${ }^{1}$ Ending 14 August 2007, 3 calendar months before installation.
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

- When comparing the pre installation period to the most recent five year period, there has been a $73 \%$ decrease in casualty crashes and a $79 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.



Ryde - Blaxland Road, between Reservoir Lane and North Road
This location is 1000 m in length, and is enforced with one camera.
The camera commenced operating on 24 June 2002.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 31 | 21 | $\downarrow 32 \%$ |
| Serious |  | 8 |  |
| Moderate |  | 9 |  |
| Minor/Other |  | 4 |  |
| Uncategorised | 31 |  |  |
| Casualty Crashes | 25 | 17 | $\downarrow 32 \%$ |
| Casualty Cost: | \$11.39M | \$3.11M | $\downarrow 73 \%$ |

${ }^{1}$ Ending 24 March 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $32 \%$ decrease in casualty crashes and a 34\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## South Windsor - George Street, between Rickaby Street and Yarrawonga Street

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

Casualties and Casualty Crashes

|  | 5 years before <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 23 | 13 | - |
| Serious |  | 5 |  |
| Moderate |  | 5 |  |
| Minor/Other | 23 | 3 |  |
| Uncategorised | 15 | 13 | $\downarrow 13 \%$ |
| Casualty Crashes | $\$ 3.19 \mathrm{M}$ | $\$ 1.94 \mathrm{M}$ | $\downarrow 39 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 30 August 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $13 \%$ decrease in casualty crashes and a 43\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## 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 1010 m (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 installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 38 | 32 | $\downarrow 16 \%$ |
| Serious | 6 | 4 |  |
| Moderate | 12 | 15 |  |
| Minor/Other | 6 | 13 |  |
| Uncategorised | 14 |  |  |
| Casualty Crashes | 28 | 23 | $\downarrow 18 \%$ |
| Casualty Cost: | \$4.77M | \$2.84M | $\downarrow 40 \%$ |

Ending 4 November 2008, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been an $18 \%$ decrease in casualty crashes and a $16 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Tenterfield - New England Highway, between Duncan Street and George Street

This location is 1000 m in length, and is enforced by 2 cameras.
Both cameras commenced operating on 3 October 2002.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 9 | 0 | $\downarrow 100 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 0 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 9 |  |  |
| Casualty Crashes | 6 | 0 | $\downarrow 100 \%$ |
| Casualty Cost: | \$15.43M | \$0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 3 July 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a $100 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Terrigal - Terrigal Drive, between Brunswick Road and Bellbird Avenue

This location is 585 m in length, and is enforced with one camera.
The camera commenced operating on 27 February 2003

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 1 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 39 | 5 | $\downarrow$ 87\% |
| Serious |  | 1 |  |
| Moderate |  | 3 |  |
| Minor/Other |  | 1 |  |
| Uncategorised | 39 |  |  |
| Casualty Crashes | 32 | 5 | $\downarrow$ 84\% |
| Casualty Cost: | \$12.50M | \$0.53M | $\downarrow 96 \%$ |

${ }^{1}$ Ending 27 November 2002, 3 calendar months before installation.
2 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: Review following road works

- When comparing the pre installation period to the most recent five year period, there has been an $84 \%$ decrease in casualty crashes and an $88 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 for the works. The location will be monitored once works are complete and a final decision will be made about the need for ongoing enforcement




## Toongabbie - Fitzwilliam Road, between Reynolds Street and Binalong Road

## School zone: Toongabbie Public School

This location is 590 m (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 installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 8 | 8 | 0\% |
| Serious | 2 | 2 |  |
| Moderate | 1 | 3 |  |
| Minor/Other | 3 | 3 |  |
| Uncategorised | 2 |  |  |
| Casualty Crashes | 7 | 7 | 0\% |
| Casualty Cost: | \$1.10M | \$0.94M | $\downarrow 14 \%$ |

Ending 16 February 2007, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been no change in casualty crashes and no change in casualties at this fixed speed camera location. The change in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




## Valla Beach - Pacific Highway, between Valla Beach Road and Oyster Creek

This location is 1000 m in length, and is enforced by 2 cameras.
Both cameras commenced operating on 5 February 2002.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 6 | 4 | $\downarrow 33 \%$ |
| Serious |  | 3 |  |
| Moderate |  | 1 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 6 |  |  |
| Casualty Crashes | 5 | 2 | $\downarrow 60 \%$ |
| Casualty Cost: | \$0.83M | \$0.94M | $\uparrow 12 \%$ |

${ }^{1}$ Ending 5 November 2001, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $60 \%$ decrease in casualty crashes and a 33\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 $100 \mathrm{~km} / \mathrm{h}$ to $80 \mathrm{~km} / \mathrm{h}$. 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.




## Valley Heights - Great Western Highway, between The Valley Road and Sun Valley Road

This location is 1000 m in length, and is enforced with one camera.
The camera commenced operating on 29 April 2002.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 22 | 8 | $\downarrow 64 \%$ |
| Serious |  | 5 |  |
| Moderate |  | 1 |  |
| Minor/Other |  | 2 |  |
| Uncategorised | 22 |  |  |
| Casualty Crashes | 14 | 8 | $\downarrow 43 \%$ |
| Casualty Cost: | \$17.23M | \$1.64M | $\downarrow 90 \%$ |

${ }^{1}$ Ending 29 January 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $43 \%$ decrease in casualty crashes and a 67\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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



## Wahroonga - Pacific Highway, between Gilda Avenue and Woodville Avenue

School zone: Warrawee Public School, Knox Grammar, Abbotsleigh Senior Campus
This location is 1960 m (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 <br> installation | Calendar years <br> 2010-2014 <br> Percentage <br> Change $^{2}$ |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 66 | 41 | $\downarrow 38 \%$ |
| Serious | 10 | 7 |  |
| Moderate | 21 | 20 | 14 |
| Minor/Other | 20 |  |  |
| Uncategorised | 15 | 36 | $\$ 4.08 \mathrm{M}$ |
| Casualty Crashes | $\$ 7.45 \mathrm{M}$ |  | $\downarrow 45 \%$ |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 28 October 2008, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $25 \%$ decrease in casualty crashes and a $38 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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.




## Wardell - Pacific Highway, between Riverside Drive and Carlisle Street

This location is 1000 m in length, and is enforced with one camera
The camera commenced operating on 24 February 2003.

Casualties and Casualty Crashes

|  | 5 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| Total Injuries | 14 | 0 | - |
| Serious |  | 2 | $\downarrow 86 \%$ |
| Moderate | 14 | 0 |  |
| Minor/Other | 7 | 2 | $\downarrow 71 \%$ |
| Uncategorised | $\$ 1.94 \mathrm{M}$ | $\$ 0.58 \mathrm{M}$ | $\downarrow 70 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 24 November 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $71 \%$ decrease in casualty crashes and an $86 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 $100 \mathrm{~km} / \mathrm{h}$ to $80 \mathrm{~km} / \mathrm{h}$. Roadworks and camera maintenance may influence the number of infringements issued




## Warrawong - Northcliffe Drive, between Griffin Street and Kully Street

This location is 1000 m in length, and is enforced with one camera
The camera commenced operating on 1 May 2003.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 0 | 0 | - |
| Total Injuries | 15 | 6 | $\downarrow$ 60\% |
| Serious |  | 4 |  |
| Moderate |  | 2 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 15 |  |  |
| Casualty Crashes | 11 | 5 | $\downarrow 55 \%$ |
| Casualty Cost: | \$2.08M | \$1.29M | $\downarrow 38 \%$ |

${ }^{1}$ Ending 1 February 2003, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $55 \%$ decrease in casualty crashes and a $60 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## West Pennant Hills - Castle Hill Road, between Pennant Hills Road and Coonara Avenue

This location is 1000 m in length, and is enforced with one camera
The camera commenced operating on 18 July 2002.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 17 | 14 | $\downarrow 18 \%$ |
| Serious |  | 4 |  |
| Moderate |  | 4 |  |
| Minor/Other |  | 6 |  |
| Uncategorised | 17 |  |  |
| Casualty Crashes | 17 | 10 | $\downarrow$ 41\% |
| Casualty Cost: | \$16.54M | \$1.77M | $\downarrow$ 89\% |

${ }^{1}$ Ending 18 April 2002, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $41 \%$ decrease in casualty crashes and a $26 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Wollongbar - Bruxner Highway, between Convernys Lane and McLeans Ridges Road

This location is 1000 m in length, and is enforced with one camera
The camera commenced operating on 24 February 2003.

Casualties and Casualty Crashes

|  | 5 years before <br> installation |  |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 1 | Calendar years <br> 2010 2014 <br> Corcentage <br> Change $^{2}$ |  |
| Total Injuries | 7 | 1 | $0 \%$ |
| Serious |  | 2 | $\downarrow 71 \%$ |
| Moderate | 7 | 0 |  |
| Minor/Other | 7 | 2 |  |
| Uncategorised | $\$ 8.06 \mathrm{M}$ | $\$ 7.21 \mathrm{M}$ | $\downarrow 11 \%$ |
| Casualty Crashes |  |  |  |
| Casualty Cost: |  |  |  |

${ }^{1}$ Ending 24 November 2002, 3 calendar months before installation
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $57 \%$ decrease in casualty crashes and a $63 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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 $100 \mathrm{~km} / \mathrm{h}$ to $80 \mathrm{~km} / \mathrm{h}$. 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




## 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 620 m (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 <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 19 | 15 | - |
| Serious |  | 7 |  |
| Moderate |  | 6 |  |
| Minor/Other | 19 | $21 \%$ |  |

Ending 15 April 2003, 3 calendar months before installation.
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

- When comparing the pre installation period to the most recent five year period, there has been a $13 \%$ decrease in casualty crashes and a $21 \%$ decrease in casualties at this fixed speed camera location. The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Woodburn - Pacific Highway, between Wagner Street and Norman Street

This location is 1000 m in length, and is enforced with one camera.
The camera commenced operating on 20 March 2001.

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 8 | 0 | $\downarrow 100 \%$ |
| Serious |  | 0 |  |
| Moderate |  | 0 |  |
| Minor/Other |  | 0 |  |
| Uncategorised | 8 |  |  |
| Casualty Crashes | 5 | 0 | $\downarrow 100 \%$ |
| Casualty Cost: | \$15.29M | \$0 | $\downarrow 100 \%$ |

${ }^{1}$ Ending 20 December 2000, 3 calendar months before installation.
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $100 \%$ decrease in casualty crashes and a 100\% decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes.
- 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 $60 \mathrm{~km} / \mathrm{h}$ to $50 \mathrm{~km} / \mathrm{h}$. 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.




## Wyoming - Henry Parry Drive, between Glennie Street and Dwyer Street

School zone: Our Lady of the Rosary Primary School
This location is 230 m (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 <br> installation | Calendar years <br> 2010 <br> Count |  |
| :--- | :---: | :---: | :---: |
| Fatalities | 0 | 0 | Percentage <br> Change $^{2}$ |
| Total Injuries | 12 | 2 | - |
| Serious |  | 0 |  |
| Moderate |  | 2 | 0 |
| Minor/Other | 12 | 2 | $\downarrow 75 \%$ |
| Uncategorised | 8 | $\$ 0.12 \mathrm{M}$ | $\downarrow 93 \%$ |
| Casualty Crashes | $\$ 1.66 \mathrm{M}$ |  |  |
| Casualty Cost: |  |  | 2 |

Ending 15 April 2003, 3 calendar months before installation.
${ }^{2}$ 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

- When comparing the pre installation period to the most recent five year period, there has been a $75 \%$ decrease in casualty crashes and an $83 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is not statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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.




## Yagoona - Hume Highway, between Smith Street and Brennan Avenue

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

Casualties and Casualty Crashes

|  | 5 years before installation ${ }^{1}$ | Calendar years 2010-2014 |  |
| :---: | :---: | :---: | :---: |
| Fatalities | 2 | 0 | $\downarrow 100 \%$ |
| Total Injuries | 74 | 36 | $\downarrow$ 51\% |
| Serious |  | 4 |  |
| Moderate |  | 17 |  |
| Minor/Other |  | 15 |  |
| Uncategorised | 74 |  |  |
| Casualty Crashes | 42 | 26 | $\downarrow 38 \%$ |
| Casualty Cost: | \$24.45M | \$3.08M | $\downarrow$ 87\% |

${ }^{1}$ Ending 7 September 2001, 3 calendar months before installation
2 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

- When comparing the pre installation period to the most recent five year period, there has been a $38 \%$ decrease in casualty crashes and a $53 \%$ decrease in casualties at this fixed speed camera location.The decrease in casualty crashes is statistically signficant, however does not account for the prevailing statewide trend in casualty crashes
- 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




## 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



- In the eastbound direction, there were 3 casualty crashes in the provisional 2014 data. This resulted in 2 serious injuries, 1 moderate injury, and 1 minor injury.
- In the westbound direction, there was 1 casualty crash in the provisional 2014 data. This resulted in 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 1645 m in length, and the two cameras commenced operating on:

- Camera 1 (southbound) 6 June 2000
- Camera 2 (northbound) 30 November 2000


## Camera 1 Southbound



- In the southbound direction, there were 2 casualty crashes in the provisional 2014 data. This resulted in 1 serious injury, and 1 moderate injury.
- In the northbound direction, there was 1 casualty crash in the provisional 2014 data. This resulted in 1 moderate 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 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) 3610 m
- Camera 2 (westbound) 3615m

The cameras commenced operating on 25 March 2007.

## Camera 1 Eastbound



- In the eastbound direction, there were 4 casualty crashes in the provisional 2014 data. This resulted in 1 serious injury, 1 moderate injury, and 2 minor injuries.
- In the westbound direction, there was 1 casualty crash in the provisional 2014 data. This resulted in 1 serious 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



## 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



- In the northbound direction, there was 1 casualty crash in the provisional 2014 data. This resulted in 1 serious injury.
- In the southbound direction, there was 1 casualty crash in the provisional 2014 data. This resulted in 1 serious 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 Southbound




## 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.

Camera 1 Eastbound


- In the eastbound direction, there were no casualty crashes in the provisional 2014 data.
- In the westbound direction, there were no casualty crashes in the provisional 2014 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 2 Westbound



## C. 2 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 2014, detailed in the table below. Cameras in high-risk locations are excluded.

Most of the 10 speed camera locations are on main roads with high traffic volumes. All of these locations were recommended to be retained in the annual review. These positive results are best reflected in the crash data for the Princes Highway, Kogarah, which shows a statistically significant reduction in casualty crashes of 33 per cent when comparing the pre installation period to the most recent five year period.
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.

Table C1: Fixed speed camera locations with the most infringements

| Location | Number of cameras | Total infringements issued 2013 | Total infringements issued 2014 | Compliance rate in 2014 |
| :---: | :---: | :---: | :---: | :---: |
| Moore Park - Cleveland Street, between Anzac Parade and South Dowling Street (November 2007) | 2 | 18,550 | 20,916 | 99.64\% |
| Rosebery/Alexandria - Botany Road, between Gardeners Road and Gillespie Street (June 2007) | 2 | 15,733 | 14,495 | 99.83\% |
| Ewingsdale - Pacific Highway, between St Helena Road and Ewingsdale Road. (September 2006) | 1 | 12,792 | 12,703 | 99.75\% |
| Wahroonga - Pacific Highway, between Gilda Avenue and Woodville Avenue (January 2009) | 2 | 16,159 | 11,824 | 99.94\% |
| Kogarah - Princes Highway, between Gray Street and President Avenue (July 2003) | 2 | 6,348 | 8,870 | 99.96\% |
| Woodburn - Pacific Highway, between Wagner Street and Norman Street (March 2001) | 1 | 8,306 | 7,858 | 99.65\% |
| Old Guildford - Woodville Road, between Orchardleigh Street and Middleton Road (January 2009) | 2 | 6,423 | 7,179 | 99.96\% |
| Ryde - Victoria Road, between Margaret Street and Cressy Road (November 2007) | 2 | 6,564 | 6,665 | 99.94\% |
| Lindfield - Pacific Highway, between Eton Road and Gladstone Parade (July 2007) | 2 | 7,831 | 6,068 | 99.96\% |
| East Gardens/ Maroubra Bunnerong Road, between Fitzgerald Avenue and Smith Street (June 2007) | 2 | 5,566 | 5,587 | 99.94\% |

## D. Appendix D: NSW fixed speed cameras operating in warning mode

Following the results of the 2011 audit of speed cameras, the 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. Cameras at seven of these locations remain in warning mode following reviews by the Centre for Road Safety and safety concerns expressed by the community. These seven locations are not included in the fixed speed camera analysis; however, a report on crash and infringement results for 2014 has been included below in Table D1.
The 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 $30 \mathrm{~km} / \mathrm{h}$ over the speed limit receive a court attendance notice and face significant penalties.

The results show that there are significant decreases 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.

Table D1: Performance at fixed speed camera locations operating in warning mode (2014)

| Location | No. of cameras | Casualty crashes and casualties 2014 |  |  |  |  | Warning letters and infringements issued under '3 strikes' program |  |  |  | Court attendance notices issued |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 发 |  |  |  |  |  |  |  |  |  |  |  |
| Spit Road, Beauty Point <br> (June 2012) | 2 | 0 | 3 | 0 | 0 | 3 | 1329 | 131 | 49 | 1509 | 0 | 3 | 3 |
| Bangalow Road, Clunes (August 2011) | 1 | 0 | 0 | 0 | 0 | 0 | 7049 | 722 | 249 | 8020 | 190 | 9 | 199 |
| Eastern Arterial Road, Gordon (June 2012) | 1 | 0 | 2 | 0 | 0 | 2 | 581 | 48 | 15 | 644 | 0 | 0 | 0 |
| President Avenue, Gymea - school zone (August 2011) | 1 | 0 | 0 | 1 | 0 | 1 | 1212 | 107 | 26 | 1345 | 2 | 0 | 2 |
| Carlingford Road, North Epping - school zone (June 2012) | 1 | 0 | 0 | 0 | 0 | 0 | 2886 | 385 | 235 | 3506 | 1 | 3 | 4 |
| Eastern Valley Way, North Willoughby (July 2012) | 1 | 0 | 1 | 2 | 0 | 3 | 1818 | 163 | 71 | 2052 | 3 | 0 | 3 |
| Pacific Highway, Urunga <br> (January 2012) | 1 | 0 | 1 | 2 | 1 | 1 | 4168 | 156 | 31 | 4355 | 29 | 5 | 34 |

## E. Appendix E: Analysis of the NSW point-to-point speed enforcement program

## E. 1 Overview of point-to-point speed enforcement lengths

|  | Road | Section | Approximate <br> Length (km) |
| :--- | :--- | :--- | :--- |
| 1 | Federal Highway | Between Goulburn and Collector | 20 |
| 2 | Golden Highway | Between Sandy Hollow to Merriwa | 28 |
| 3 | Great Western Highway | Between Meadow Flat and Raglan | 26 |
| 4 | Gwydir Highway | Between Glen Innes and Inverell | 57 |
| 5 | Hume Highway | Between Coolac and Yass | 72 |
| 6 | Hume Highway | Between Gundagai and Coolac | 16 |
| 7 | Mitchell Highway | Between Molong and Cundumbul | 28 |
| 8 | Monaro Highway | Between Bredbo and Cooma | 28 |
| 9 | Mount Ousley Road | Between Bulli and Gwynneville | 15 |
| 10 | New England Highway | Between Muswellbrook and Aberdeen | 7 |
| 11 | New England Highway | Between Muswellbrook and Singleton | 36 |
| 12 | Newell Highway | Between Eumungerie and Gilgandra | 30 |
| 13 | Newell Highway | Between Forbes and West Wyalong | 94 |
| 14 | Newell Highway | Between Peak Hill and Tomingley | 10 |
| 15 | Oxley Highway | Between Gunedah and Tamworth | 60 |
| 16 | Pacific Highway | Between Ballina and Wardell | 16 |
| 17 | Pacific Highway | Between Harwood and New Italy | 35 |
| 18 | Pacific Highway | Between Kew and Port Macquarie | 15 |
| 19 | Pacific Highway | Between Nabiac and Taree | 17 |
| 20 | Pacific Highway | Between Port Macquarie and Kempsey | 36 |
| 21 | Pacific Highway | Between Tyndale and Harwood | 21 |
| 22 | Pacific Highway | Between Urunga and Valla | 13 |
| 23 | Pacific Highway | Between Woodburn and Wardell | 18 |
| 24 | Picton Road | Between Wilton and Cataract | 17 |

## E. 2 Installation of point-to-point enforcement lengths

There are 25 lengths that are part of the point-to-point enforcement program, and 24 of these lengths were installed and operational by the end of 2014:

- two lengths were installed in 2010
- 13 lengths were installed in 2011
- five lengths were installed in 2012
- one length was installed in 2013
- three lengths were installed in 2014

The remaining point-to-point length was installed and operational in early 2015.

## E. 3 Analysis

There were 21 lengths that have enforced for the entire 2014 review period. While heavy vehicle speed compliance within these lengths is positive, many point-to-point speed enforcement lengths have been operational for three years or less, and it is too early to assess the effectiveness of individual enforcement lengths.

Only one point-to-point length, Great Western Highway between Meadow Flat and Raglan, has enforced for more than four years. This length commenced in warning mode in May 2010.
Eight point-to-point lengths have enforced for at least three years:

- Federal Highway between Goulburn and Collector
- Great Western Highway between Meadow Flat and Raglan (has enforced for more than four years)
- Hume Highway between Coolac and Yass
- Hume Highway between Gundagai and Coolac
- Monaro Highway between Bredbo and Cooma
- Pacific Highway between Harwood and New Italy
- Pacific Highway between Nabiac and Taree
- Pacific Highway between Woodburn and Wardell

The pre installation and current post installation period data, detailed in Table E1 below, shows that crashes and casualties have reduced at these locations.

The infringement data for these lengths are detailed in Figure E1 below. The low number of infringements issued within each of these lengths shows that there has been a high level of compliance with the speed limit. The graph also shows there has been a reduction in speeding behaviour at these lengths over time.

A total of 1,581 speeding infringements were issued resulting in total fines of $\$ 688,758$ at point-to-point lengths in 2014.


Figure E1: Point-to-point speed infringements at selected locations

It is important to note that roadworks and camera maintenance may influence the number of infringements issued. For example, Figure E1 above depicts a spike in infringements at the enforcement length on the Pacific Highway between Harwood and New Italy in May 2013. This can be attributed to a reduction in speed limit due to road works that occurred in April 2013.

Table E1: Heavy vehicle crashes and infringements at point-to-point speed enforcement locations

| Road | Section and warning letter start | Before installation heavy vehicle casualty crashes and casualties ( 5 years before installation) ${ }^{1}$ |  |  |  |  | After installation heavy vehicle casualty crashes and casualties (up to 31 December 2014) |  |  |  |  | Infringements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fatalities | Serious injuries | Moderate injuries | Minor I other injuries | Casualty crashes | Fatalities | Serious injuries | Moderate injuries | Minor I other injuries | Casualty crashes | 2011 | 2012 | 2013 | 2014 |
| Federal Highway | Between Goulburn and Collector (30 May 2011) | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 2 | 2 | 62 | 120 | 121 | 114 |
| Golden Highway | Between Sandy Hollow to Merriwa (1 Mar 2012) | 0 | 2 | 2 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | - | 7 | 10 | 2 |
| Great Western Highway | Between Meadow Flat and Raglan (31 May 2010) | 2 | 2 | 6 | 3 | 10 | 4 | 5 | 1 | 0 | 5 | 13 | 12 | 3 | 0 |
| Gwydir Highway | Between Glen Innes and Inverell <br> (25 Oct 2011) | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | - | 4 | 1 | 2 |
| Hume Highway | Between Coolac and Yass (26 Aug 2011) | 2 | 3 | 1 | 18 | 17 | 0 | 6 | 1 | 14 | 14 | 19 | 255 | 130 | 122 |
| Hume Highway | Between Gundagai and Coolac <br> (26 Aug 2011) | 1 | 6 | 0 | 1 | 7 | 1 | 0 | 0 | 4 | 3 | 26 | 264 | 214 | 134 |
| Mitchell Highway | Between Molong and Cundumbul (5 Aug 2011) | 0 | 5 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 1 | - | - | 3 | 20 |
| Monaro Highway | Between Bredbo and Cooma (17 Sep 2011) | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | - | 5 | 9 | 3 |
| Mount Ousley Road | Between Bulli and Gwynneville <br> (28 Jan 2014) | 0 | 14 | 7 | 7 | 20 | 0 | 2 | 1 | 0 | 3 | - | - | - | 401 |
| New England Highway | Between <br> Muswellbrook and Aberdeen (16 Dec 2011) | 0 | 4 | 1 | 1 | 4 | 0 | 1 | 0 | 0 | 1 | - | 1 | 2 | 2 |


| Road | Section and warning letter start | Before installation heavy vehicle casualty crashes and casualties ( 5 years before installation) ${ }^{1}$ |  |  |  |  | After installation heavy vehicle casualty crashes and casualties (up to 31 December 2014) |  |  |  |  | Infringements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fatalities | Serious injuries | Moderate injuries | Minor I other injuries | Casualty crashes | Fatalities | Serious injuries | Moderate injuries | Minor I other injuries | Casualty crashes | 2011 | 2012 | 2013 | 2014 |
| New <br> England Highway | Between <br> Muswellbrook and Singleton (20 Dec 2011) | 2 | 2 | 4 | 1 | 7 | 1 | 3 | 3 | 0 | 7 | - | 3 | 3 | 2 |
| Newell Highway | Between Eumungerie and Gilgandra (22 Dec 2011) | 2 | 2 | 4 | 4 | 6 | 0 | 2 | 1 | 1 | 3 | - | 72 | 28 | 22 |
| Newell Highway | Between Forbes and West Wyalong (22 Mar 2013) | 0 | 6 | 0 | 7 | 10 | 1 | 1 | 2 | 0 | 3 | - | - | 21 | 18 |
| Newell Highway | Between Peak Hill and Tomingley (22 Dec 2011) | 2 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | - | 21 | 28 | 22 |
| Oxley Highway | Between Gunedah and Tamworth (30 Nov 2011) | 1 | 1 | 1 | 1 | 4 | 1 | 0 | 0 | 0 | 1 | - | 4 | 8 | 9 |
| Pacific Highway | Between Ballina and Wardell <br> (5 Feb 2014) | 0 | 5 | 3 | 6 | 8 | 0 | 0 | 0 | 0 | 0 | - | - | - | 8 |
| Pacific Highway | Between Harwood and New Italy <br> (31 Mar 2010) | 4 | 11 | 0 | 8 | 17 | 4 | 11 | 3 | 9 | 17 | 110 | 11 | 136 | 1 |
| Pacific Highway | Between Kew and Port Macquarie <br> (17 Aug 2012) | 1 | 9 | 4 | 5 | 14 | 3 | 0 | 3 | 0 | 4 | - | - | 199 | 402 |
| Pacific Highway | Between Nabiac and <br> Taree (5 Aug 2011) | 1 | 4 | 5 | 0 | 7 | 1 | 3 | 2 | 1 | 7 | 22 | 45 | 169 | 148 |
| Pacific Highway | Between Port Macquarie and Kempsey (14 Dec 2011) | 0 | 8 | 5 | 2 | 10 | 0 | 3 | 4 | 3 | 6 | - | 1 | 0 | 0 |
| Pacific Highway | Between Tyndale and Harwood <br> (5 Feb 2014) | 0 | 4 | 4 | 2 | 7 | 1 | 2 | 0 | 1 | 2 | - | - | - | 3 |


| Road | Section and warning letter start | Before installation heavy vehicle casualty crashes and casualties ( 5 years before installation) ${ }^{1}$ |  |  |  |  | After installation heavy vehicle casualty crashes and casualties (up to 31 December 2014) |  |  |  |  | Infringements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fatalities | Serious injuries | Moderate injuries | Minor I other injuries | Casualty crashes | Fatalities | Serious injuries | Moderate injuries | Minor I other injuries | Casualty crashes | 2011 | 2012 | 2013 | 2014 |
| Pacific Highway | Between Urunga and Valla (29 Sep 2012) | 4 | 7 | 2 | 8 | 10 | 0 | 0 | 2 | 5 | 2 | - | - | 79 | 73 |
| Pacific Highway | Between Woodburn and Wardell <br> (28 Jun 2011) | 4 | 10 | 1 | 7 | 16 | 3 | 5 | 3 | 3 | 9 | 29 | 49 | 62 | 38 |
| Picton Road | Between Wilton and Cataract <br> (17 Oct 2012) | 8 | 3 | 3 | 2 | 7 | 0 | 0 | 0 | 2 | 2 | - | - | 5 | 1 |

${ }^{1}$ Ending 91 days before the start of the warning letter period.


[^0]:    ${ }^{1}$ Of the 107 fixed speed camera locations, seven locations operate in warning mode and five locations are 'high risk' that are located in tunnels. These locations were not included in the fixed speed camera analysis.

[^1]:    ${ }^{2}$ Of the 107 fixed speed camera locations, seven locations operate in warning mode and five locations are 'high risk' locations (typically located in tunnels). These locations were not included in the fixed speed camera analysis.

[^2]:    ${ }^{3}$ More information about how crash data is processed in NSW is available online at www.roadsafety.transport.nsw.gov.au.

[^3]:    ${ }^{4}$ Austroads (2009). Guide to Road Safety Part 8: Treatment of Crash Locations. Publication No. AGRS08/09.
    ${ }^{5}$ Budd, L., Scully, J. \& Newstead, S.. (2011). Evaluation of the Crash Effects of Victoria's Fixed Digital Speed and Red-light Cameras, Report No. 307, Monash University Accident Research Centre., Publicly available from: http://www.monash.edu.au/miri/research/reports/muarc307.pdf.

[^4]:    ${ }^{6}$ Przyborowski, J., Wilenski, H., 1940. Homogeneity of results in testing samples from Poisson series. Biometrika 31, 313-323.

[^5]:    ${ }^{7}$ Budd, L., Scully, J. \& Newstead, S.. (2011). Evaluation of the Crash Effects of Victoria's Fixed Digital Speed and Red-light Cameras, Report No. 307, Monash University Accident Research Centre., Publicly available from: http://www.monash.edu.au/miri/research/reports/muarc307.pdf.

[^6]:    ${ }^{8}$ Soole, D. W., Fleiter, J. and Watson, B. (2011) Point-to-point speed enforcement: A technological overview, review of the empirical evidence and recommendations for better practice, Draft final report for Austroads Steering Committee, Austroads, Sydney, Australia.
    ${ }^{9}$ Soole, D. W., Fleiter, J. and Watson, B. (2012). Point-to-point speed enforcement. Austroads Research Report, AP-R415-12.

[^7]:    ${ }^{1}$ NSW Centre for Road Safety (2011). NSW Mobile Speed Camera Review. NSW Centre for Road Safety.

