

# Mobile speed cameras

18 OCTOBER 2018



NEW SOUTH WALES AUDITOR-GENERAL'S REPORT

PERFORMANCE AUDIT

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In accordance with section 38E of the *Public Finance and Audit Act 1983*, I present a report titled '**Mobile speed cameras**'.

A handwritten signature in black ink, appearing to read 'Margaret Crawford'.

**Margaret Crawford**

Auditor-General  
18 October 2018

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## **Section one**

Mobile speed cameras



# Executive summary

The primary goal of speed cameras is to reduce speeding and make the roads safer. Our 2011 performance audit on speed cameras found that, in general, speed cameras change driver behaviour and have a positive impact on road safety.

Transport for NSW published the NSW Speed Camera Strategy in June 2012 in response to our audit. According to the Strategy, the main purpose of mobile speed cameras is to reduce speeding across the road network by providing a general deterrence through anywhere, anytime enforcement and by creating a perceived risk of detection across the road network. Fixed and red-light speed cameras aim to reduce speeding at specific locations.

Roads and Maritime Services and Transport for NSW deploy mobile speed cameras (MSCs) in consultation with NSW Police. The cameras are operated by contractors authorised by Roads and Maritime Services. MSC locations are stretches of road that can be more than 20 kilometres long. MSC sites are specific places within these locations that meet the requirements for a MSC vehicle to be able to operate there.

This audit assessed whether the mobile speed camera program is effectively managed to maximise road safety benefits across the NSW road network.



## Conclusion

**The mobile speed camera program requires improvements to key aspects of its management to maximise road safety benefits. While camera locations have been selected based on crash history, the limited number of locations restricts network coverage. It also makes enforcement more predictable, reducing the ability to provide a general deterrence. Implementation of the program has been consistent with government decisions to limit its hours of operation and use multiple warning signs. These factors limit the ability of the mobile speed camera program to effectively deliver a broad general network deterrence from speeding.**

Many locations are needed to enable network-wide coverage and ensure MSC sessions are randomised and not predictable. However, there are insufficient locations available to operate MSCs that meet strict criteria for crash history, operator safety, signage and technical requirements. MSC performance would be improved if there were more locations.

A scheduling system is meant to randomise MSC location visits to ensure they are not predictable. However, a relatively small number of locations have been visited many times making their deployment more predictable in these places. The allocation of MSCs across the time of day, day of week and across regions is prioritised based on crash history but the frequency of location visits does not correspond with the crash risk for each location.

There is evidence of a reduction in fatal and serious crashes at the 30 best-performing MSC locations. However, there is limited evidence that the current MSC program in NSW has led to a behavioural change in drivers by creating a general network deterrence. While the overall reduction in serious injuries on roads has continued, fatalities have started to climb again. Compliance with speed limits has improved at the sites and locations that MSCs operate, but the results of overall network speed surveys vary, with recent improvements in some speed zones but not others.

There is no supporting justification for the number of hours of operation for the program. The rate of MSC enforcement (hours per capita) in NSW is less than Queensland and Victoria. The government decision to use multiple warning signs has made it harder to identify and maintain suitable MSC locations, and impeded their use for enforcement in both traffic directions and in school zones.



## 1. Key findings

### **MSC performance would be improved if more locations were used**

The Minister for Roads announced in June 2012 that MSCs would be operating at about 2,500 locations. There are currently 1,024 locations approved for use by MSCs, but only around 940 of these have suitable sites available for MSC use. Only 650 of these were used in the six months to December 2017. This means there is a current shortfall of over 1,500 locations in respect of the Minister's commitment. Identifying locations with suitable sites can be difficult because they need to meet strict criteria for crash history, operator safety, signage and technical requirements.

Many additional locations were assessed for crash risk, but there is little documentation to indicate whether they were assessed for suitable sites nor why they were deemed unsuitable for the MSC program. The limited number of approved locations impedes the program's ability to randomise visits and increases the likelihood that enforcement will become predictable. It also means that MSCs may not be providing network-wide coverage.

### **The MSC schedule is not random**

The MSC scheduling system is meant to randomise the schedule to ensure that deployment is not predictable. There is limited oversight of the way the system is scheduling MSC sessions with a relatively small number of MSC sites being visited a high number of times. For example, 60 locations were visited more than 500 times in the last five years, eight visited more than a thousand times and one visited 1,768 times.

The time of day, day of week and regional allocation of MSCs are based on crash history but the frequency of location visits does not correspond with the crash risk weighting for each location. We found that many higher risk locations are scheduled less often than lower risk locations.

### **There is no supporting justification to explain how hours of operation were determined**

The Centre for Road Safety (now part of Transport for NSW) produced a research paper on mobile speed cameras in 2011 which recommended an increase in hours to a similar rate to Queensland and Victoria, citing significant improvements in road safety from a program of that size. The MSC program was expanded from 930 hours per month of enforcement in 2012 to 7,000 hours in 2014. This was equivalent to 9.7 hours per 10,000 population which was smaller per capita than the scale of MSC programs in Queensland (14.9) and Victoria (16.8).

No analysis was undertaken to estimate the MSC hours required to achieve the program purpose of a general network deterrence to speeding, as outlined in the Speed Camera Strategy. Further, the hours required to effectively complement other enforcement activities was not assessed.

### **Signage requirements limit the effectiveness of the program**

A key aspect of providing an effective general network deterrence is creating a perception that speeding can be enforced anywhere at any time. Multiple warning signs have increased compliance at the sites and locations that MSCs currently operate but reduced the likelihood of achieving a general network deterrence - the main purpose of MSCs. This is because the use of signs reduces the perceived risk of detection, thereby limiting the ability of MSCs to moderate driver behaviour at other locations.

The additional signage requirements have further limited the effectiveness of MSCs by making it more difficult to enforce speed limits in both traffic directions, because of the need to set up multiple signs on both sides of the road. They have made it more difficult to operate in school zones because of the need to change the indicative speed sign, in line with the change in speed limit, during the MSC session.

There are also additional costs associated with the signs, including the time for their set up and removal, and additional site maintenance costs. Deploying signs also puts operators at risk of injury. Transport for NSW has not evaluated the use of signs to gauge their impact on the effectiveness of the MSC program since their implementation in 2012.

### **Most requirements of the Speed Camera Strategy have been met**

Transport for NSW developed a Speed Camera Strategy in 2012. Since then, a range of commitments have been met. These include increasing the size of the MSC program, increasing the number of signs used in MSC sessions and publishing performance information on the success of the program annually. That said, the Speed Camera Strategy has not been formally reviewed and updated since it was first established in 2012 to incorporate the outcomes of annual reviews of speed cameras, changes in technology and research into best practice.

### **There is limited evidence the MSC program has created a general network deterrence**

While the overall reduction in speed related serious injuries on roads has continued, fatalities have started to climb again. Compliance with speed limits has improved at the limited number of sites and locations that MSCs operate but the results of overall network speed surveys vary, with recent improvements in some speed zones but not others.

Given that MSCs are one component of a range of speed enforcement activities, including police patrols and fixed cameras, the results for speed surveys and crash data are only partially attributable to MSCs. Crash data is also influenced by a range of other factors including improvements in vehicle safety and road design.

The use of the MSC compliance data (i.e. the proportion of vehicles that pass a MSC that are not fined) is not an effective measure of the network-wide success of MSCs as it only demonstrates improved compliance at a limited number of locations. Transport for NSW advise that this measure is supplemented with data on reduction in road trauma, speed related crashes and speeding. However, compliance data is the only measure currently directly attributable to MSCs.

### **There is limited oversight of compliance with operating procedures and infringement culling**

There is limited resourcing to check whether MSC sessions are delivered in accordance with operational procedures and contract requirements. There is currently one inspector state-wide to gauge compliance. Roads and Maritime Services advises it plans to improve resourcing and enhance the way it collects and processes compliance information.

Infringement data that does not meet the strict evidentiary requirements (e.g. obscured number plates) is separated out by the MSC contractor prior to confirmed infringements being sent to Revenue NSW for processing. Roads and Maritime Services does not analyse a sample of these rejected infringements to ensure they are being 'culled' appropriately.



## 2. Recommendations

**By October 2019, Transport for NSW and Roads and Maritime Services should:**

1. Review the Speed Camera Strategy to ensure MSCs provide an effective general deterrence and complement other speed enforcement activities, including by:
  - undertaking and publishing a review of research on better practice for MSCs in other jurisdictions
  - reviewing the number of hours MSCs are deployed
  - revisiting the performance indicators for the success of the program, to ensure they provide information on whether it is providing a general network deterrence
  - continuing to develop public information campaigns to support the MSC program
  - reviewing signage requirements for MSCs to ensure they support the purpose of MSCs and align with better practice.
2. Enhance management of MSCs by:
  - assessing additional locations and sites for inclusion in the MSC program, using a broader range of selection criteria, and making sure these assessments are adequately documented
  - ensuring the MSC scheduling system allocates location visits in accordance with their crash risk weighting and the deployment strategy
  - improving surveillance of contractor compliance with MSC operational procedures
  - reviewing oversight of the culling of infringement notices.





# 1. Introduction

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## 1.1 Background

The National Road Safety Strategy recommends best practice enforcement using a combination of on-road policing and speed camera technologies to improve compliance and speed enforcement across the whole road network.

The primary goal of speed cameras is to reduce speeding and thereby make the roads safer. Our 2011 performance audit on speed cameras found that, in general, speed cameras change driver behaviour and have a positive impact on road safety.

There are four types of speed cameras used in NSW to encourage drivers to comply with the speed limit. According to the Speed Camera Strategy, the main purpose of each is:

- mobile speed cameras - general network deterrence
- red-light speed cameras - location specific to address high-risk intersections
- fixed speed cameras - location specific to address black spot/high-risk
- point to point (i.e. average speed) cameras - route enforcement for heavy vehicles only.

Our 2011 audit focused on fixed speed cameras and red-light speed cameras. It was too soon to gauge the effectiveness of MSCs as they were only reintroduced in the previous year. At that time, there was a low rate of MSC enforcement in NSW compared with other jurisdictions and a major expansion of the program was planned.

### **Speeding on our roads has a significant impact on the community**

In 2017 there were 392 fatalities and over 17,600 casualties recorded on NSW roads. Managing vehicle speeds across the NSW road network is important as speed is a factor in over 40 per cent of fatal crashes. Recent crash data indicates that, while injury rates continue to decline, the number of fatal crashes involving speed increased by 19 per cent in the 12 months to April 2018 compared to previous years.

The cost of speeding is not only a human one; it is estimated that speed-related crashes cost the community around \$1.7 billion each year in NSW. Community costs include emergency services, hospital and health care and loss of productivity in the workplace. A Premier's priority is to reduce road fatalities by at least 30 per cent from 2011 levels by 2021.

NSW speed survey data for the last eight years shows a general trend of more light vehicles complying with the speed limit across all speed zones. However, the latest results also highlighted increased speeding in 40km/h, 50km/h and 100km/h zones. Speed surveys also identify that 28 per cent of drivers are exceeding the speed limit by up to 10 km/h and over five per cent of drivers are exceeding the speed limit by more than 10 km/h.

The National Survey of Community Satisfaction with Policing 2016–17 indicates that the proportion of respondents in NSW who consider speeding and dangerous driving to be a 'major problem' and 'somewhat of a problem' in their community has increased from around 60 per cent in 2012–13 to over 70 per cent in 2016–17.

## Expansion of the mobile speed camera program

The MSC program was reintroduced in NSW in July 2010. The program was to involve an initial six vehicles deployed across the State, with deployment of vehicles for 12,200 hours per month by July 2011. It was expected that 2,000–3,000 sites around NSW would be required to achieve the highest road safety outcomes from the MSC program.

In June 2012, the Roads Minister announced the NSW Speed Camera Strategy, including an expansion of the use of MSCs. The establishment of a strategy was one of the recommendations from our 2011 audit. The new MSC program was to include:

- about 45 MSC vehicles using about 2,500 locations
- 7,000 hours of enforcement per month by July 2013
- doubling the number of warning signs, with motorists getting up to 250 metres advanced warning
- changes to the MSC vehicles including more identifiable markings.

## About mobile speed cameras

As stated in the NSW Speed Camera Strategy, the main purpose of MSCs is to provide a general network deterrence. It also states the actual deployment of MSCs will be based on findings from evaluations conducted of well-established mobile speed cameras programs in jurisdictions such as Victoria and Queensland. In these jurisdictions deployment is determined based on prioritising locations on crash history and risk including times of previous crashes, and increasing the general deterrence of speeding through anywhere, anytime enforcement i.e. creating a perceived risk of detection across the road network.

To create a perception that speeding can be enforced anywhere at any time MSCs should:

- expose a significant number of road users to enforcement and cover a significant amount of the road network
- operate at various times and locations over a broad geographical area
- be unpredictable regarding the exact location of deployment
- be supported by well publicised information campaigns
- focus on times and locations of higher crash risk and/or high violation.

Roads and Maritime Services and Transport for NSW schedule the deployment of up to 45 MSCs in consultation with NSW Police. MSCs are operated by third-party contractors who are authorised by Roads and Maritime Services. The contractors are responsible for driving the MSC vehicle to the scheduled enforcement location, setting up the vehicle, signage and camera in accordance with operating procedures and ensuring that the camera is secured and operating correctly.

As with a fixed speed camera, the enforcement of speeding is an automated process conducted by the camera. A vehicle's speed is detected using an approved speed measurement device such as a radar. If a vehicle is detected speeding, a digital image of the vehicle is recorded from which details regarding the speeding vehicle can be extracted. This image is then used to generate an infringement.

The certification of speed measuring devices is managed by Roads and Maritime Services to ensure the accuracy and reliability of MSCs. Revenue NSW is responsible for processing and issuing infringements. Revenue raised from MSCs is placed in the Community Road Safety Fund used to fund road safety programs in NSW including road safety engineering works and education programs.

## Exhibit 1: MSC vehicle in operation



Source: Roads and Maritime Services 2018.

### About the audit

This audit assessed whether the mobile speed camera program is effectively managed to maximise road safety benefits across the NSW road network. In making this assessment, we answered the following questions:

- Are mobile speed camera locations and hours of operation well selected and scheduled, and regularly reviewed?
- Are mobile speed camera contracts well managed?

We also examined whether the mobile speed camera program is delivering on the commitments within the Speed Camera Strategy. The scope included research and practice on the best approach to mobile speed camera enforcement.

We did not examine the effectiveness of other speed enforcement activities such as fixed speed cameras and police patrols.



## 2. Selecting and scheduling MSC locations and hours of operation

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### 2.1 The Speed Camera Strategy details the commitments of the mobile speed camera program

One of the key recommendations from our 2011 audit, 'Improving Road Safety: Speed Cameras' was to develop an overarching strategy for speed cameras incorporating all camera types, which:

- includes criteria to determine the appropriate camera type for each road with a high safety risk
- prioritises potential sites based on death or serious injury
- defines how the effectiveness of each camera type will be assessed, including the analysis timeframe, and key performance indicators on vehicle speed, infringements, and crash severity
- includes its new focus on reducing speeding across the road network, as well as at specific locations.

Transport for NSW responded to this audit recommendation and developed the NSW Speed Camera Strategy in 2012. The strategy aims to outline the current speeding problem, community attitudes to speeding and speed enforcement and clearly articulate the benefits of a comprehensive strategy for speed cameras in NSW. It contains a range of commitments designed to reduce speeding and improve road safety across the network.

#### **Most commitments in the Speed Camera Strategy have been met**

We found that Transport for NSW and Roads and Maritime Services have met most commitments in the Speed Camera Strategy. For example, the strategy required an increase in MSC operations, although the strategy made no commitment regarding total number of hours of operation. The use of mobile speed cameras was increased from 6 vehicles and around 900 hours per month in 2010 to 45 vehicles and 7,000 hours per month in 2014.

The strategy required that a range of speed cameras are used across the road network to enforce vehicle speeds. Fixed cameras, red-light speed cameras and MSCs are used to enforce light and heavy vehicle speeds. Average speed (point-point) cameras are being used to enforce heavy vehicle speeds only.

As required by the strategy, Transport for NSW publishes a review of speed camera operations annually. The overall goal of MSCs, in the strategy, is the 'reduction in road trauma, speed-related crashes and speeding across the whole road network'.

The latest report published in April 2018 covered the performance of the program in 2016. The following table shows the criteria that Transport for NSW has developed for measuring the effectiveness of MSCs and the results for 2016.

## Exhibit 2: Criteria for measuring the effectiveness of MSCs and the results for 2016

Criteria	Results and comment
Annual speed surveys: Reduction in vehicles exceeding speed limit across the road network/ random sample of locations.	Comparing changes in vehicle speeds prior to the increase in MSC hours of operation in 2014, there was a reduction in vehicles speeding over 10 km/h and minor changes in average vehicle speeds and vehicles speeding less than 10 km/h.
Compliance data: Increase in compliance rates/Reduction in infringement rates.	The compliance rate (i.e. the proportion of vehicles passing a MSC that are not fined) increased to 99.92 per cent, i.e. fewer than one in 1,000 are fined.
Crash data: Reduction in crashes and casualties across NSW.	Compared to 2014, there was an increase in speed related fatalities (127 to 159) and a decrease in serious injuries (1,623 to 1,428).

Note: Speed surveys for the Transport for NSW annual speed survey program are conducted at 175 NSW locations, including a range of roads with a range of speed limits, to gather current information about the speeding behaviour of both light vehicle drivers and heavy vehicle drivers.

Source: Transport for NSW 2018.

Given that MSCs are one component of a range of speed enforcement activities, including police patrols and fixed cameras, the above results for speeding and crash data are only partially attributable to MSCs. Crash data is also influenced by a range of other factors including improvements in vehicle safety and road design.

Compliance data is not an effective measure of the network-wide success of MSCs as it only demonstrates improved compliance at a limited number of locations. Transport for NSW should consider a range of other performance indicators to measure the success of MSCs including the number of active locations and sites, the prioritisation of MSC sessions and should look to other jurisdictions for best practice measures of the effectiveness of the MSC program.

Other commitments in the strategy that have been met include:

- developing a webpage for the community to suggest a location for a speed camera. Members of the public also have the opportunity to sign up for notifications of new speed camera locations
- deploying additional warning signage for MSC vehicles. Operating procedures require a third sign to be positioned approximately 250 metres before the MSC vehicle to warn drivers of the presence of a mobile camera
- NSW Police nominating locations for MSC deployment. We saw evidence of over 300 instances of MSCs used at NSW Police request to support police operations.

### Some commitments in the Speed Camera Strategy have not been met

MSC locations are selected based on crash history and each location is given a crash risk weighting based on the number of fatal, serious and minor crashes that have occurred. However, we found that the frequency of location visits is not prioritised in accordance with crash risk.

Transport for NSW has published the list of approved MSC locations online. A list of 1,024 approved locations is available online, although not all locations are being used and some do not have suitable sites for MSC deployment.

The Speed Camera Strategy requires that extensive reviews of speed camera research be available on Transport for NSW and Roads and Maritime Services websites. However, these reviews were removed from the website in 2014. Transport for NSW has indicated they will make these reports available on their website.

Although general information is available on the Transport for NSW website on speed camera calibration and testing, certification and testing documentation for speed cameras is not readily available in accordance with the strategy. Transport for NSW advises that the details of the certificates for each camera is provided to road users who have been infringed for speeding or red-light offences, through the Revenue NSW website.

Public education campaigns to support speed enforcement in NSW have been developed, such as the 'Don't Rush' campaign, but only one campaign specific to MSCs was run in 2012 (the 'Helping Hands' campaign). Research shows that public information campaigns highlighting the risks of getting caught, and the safety benefits they offer, support the general deterrence to speeding.

The Speed Camera Strategy has not been formally reviewed and updated to incorporate the outcomes of its annual reviews of speed cameras, changes in technology or research into best practice since it was first established in 2012. While each published annual review of speed cameras contains a review of camera performance and a summary of changes to camera locations, there is no indication of how it informs the overall strategy.

## 2.2 MSC location selection and prioritisation

### Criteria have been established for assessing MSC locations and sites

Transport for NSW identifies potential locations through analysis of crash data. Once a location has been identified, it can be assessed to determine if there are suitable sites within the location for MSCs to operate. Sites must meet strict criteria including complying with safe work procedures and requirements regarding the positioning of the vehicle, the operation of the cameras and signage.

The Speed Camera Strategy outlines the criteria used for locating and scheduling mobile cameras. These include:

- frequency and severity of crashes
- risk of road trauma or previous fatal crash
- police and/or community nominated
- location is difficult to enforce by Police using conventional methods.

MSC locations are reviewed, but not on a regular basis. The locations and their crash risk weighting have only been reviewed three times since 2010, with the latest update in early 2018. The improvements during each review included updating of crash data and ensuring road changes are captured in the mapping of locations. To date, over 2,100 locations have been assessed for crash risk.

Roads and Maritime Services has developed procedures for selecting sites in locations identified by Transport for NSW. All MSCs must:

- be safe for the operator, public (motorist and pedestrians) and the MSC vehicle
- enable sufficient clearance between the MSC vehicle and through traffic
- enable sufficient clearance when parked behind a guard rail or roped barrier
- not hinder traffic turning right into cross streets or driveways
- not target vehicles descending unsuitable gradients unless the site has a significant crash problem
- not be located at the end of overtaking lanes near the squeeze point
- have a minimum 100 metres straight section of road in front of the intended parking position of the speed camera vehicle
- be located at least 100 metres after a change (up or down) in speed limit
- not use the surrounding area to disguise or conceal the MSC vehicle
- not be within 1 km of a fixed speed camera or red-light speed camera
- generally not be operating during peak traffic periods.

Roads and Maritime Services and contractors review sites at approved locations to ensure they still meet the requirements of the site selection procedures.

## There is a shortage of suitable locations and sites

The Minister for Roads announced in June 2012 that MSCs would be operating at about 2,500 locations. However, there are currently only 1,024 locations approved for use, with 640 locations available in 2016 and a further 384 locations approved in early 2017. Of the 1,024 MSC approved locations only around 940 have suitable sites available, and only 650 were used in the six months to December 2017. This means there is a current shortfall of over 1,500 locations in respect of the Minister's commitment. Currently, there are 2,585 sites available for enforcement within the limited number of locations.

Even though 2,100 locations have been assessed for crash risk, many have not been included in the program. For example, of the 60 locations assessed as being the highest risk in 2016, 38 have not been included in the program. These include many locations which are unsuitable for use by MSCs because they are on motorways or built up areas where safe vehicle parking and signage placement is not possible.

Reviews of locations that were found to have no suitable sites have not been documented so we cannot be sure that all locations that have been assessed for crash risk have also been assessed to determine if they have suitable sites. Further, if they have been assessed, we do not know the reasons why they did not have suitable sites. This is particularly important because of the current shortfall in suitable locations. Transport for NSW report they have since established a dedicated database to capture this information and will need to create a procedure for recording locations that are unsuitable for enforcement.

Locations with suitable sites need to meet strict criteria for operator safety and meet the technical requirements of the speed camera device. Other things that influence site availability include changes in road environment, road engineering projects and the installation of police enforcement bays. Some of the locations have been retired because no suitable sites have been identified; not because there is no longer a safety benefit. For example, in 2016 there were 87 MSC locations identified where enforcement is no longer possible under current program policies, because there is not sufficient space to park the enforcement vehicle and place the required warning signs.

Transport for NSW acknowledges that the MSC program would benefit from expanding beyond the currently approved locations. The limited number of approved locations with suitable sites limits the ability to randomise MSC deployment and increases the likelihood that enforcement will become predictable. This is likely to limit the general deterrence effect of MSCs.

An expansion of the criteria for the selection of locations may be necessary to achieve the target of around 2,500 active locations. Currently the key driver of camera location selection and prioritisation is crash history. Transport for NSW report that informal requests for enforcement from Police are used in the selection of camera locations, however data which identifies areas where speeding is a problem, such as infringement data, are not used to direct the mobile speed camera program. Transport for NSW should include research and relevant data to inform the selection of locations.

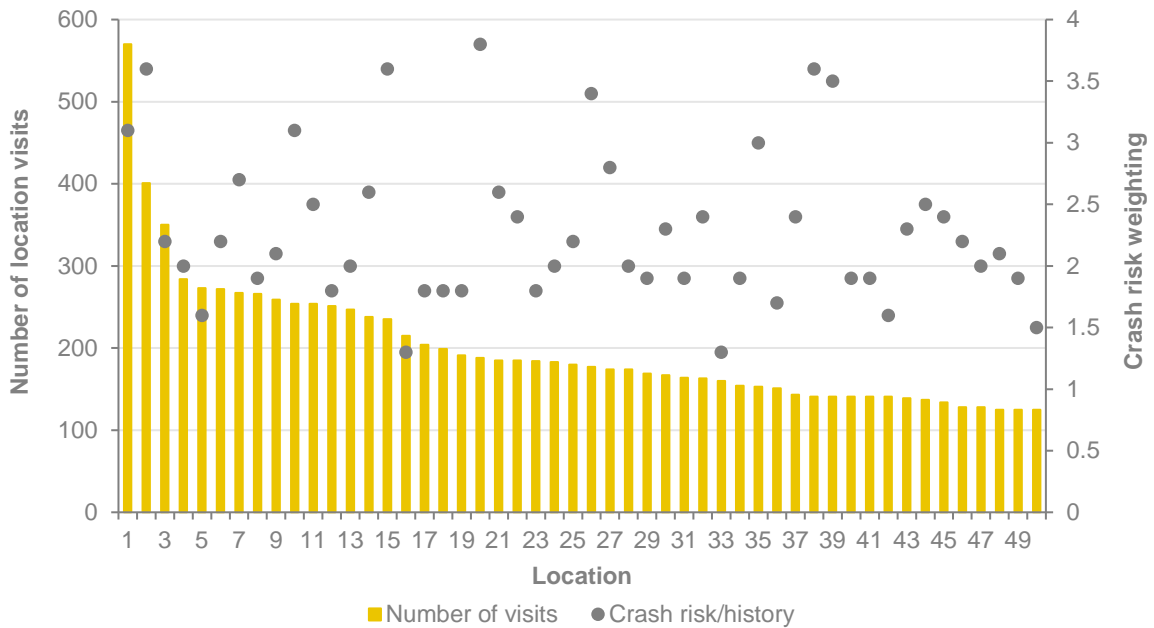
Transport for NSW advises that there is currently no source of network-wide speeding data to prioritise locations for enforcement. However, Queensland, Victoria and Western Australia consider high risk speeding behaviour in their MSC location selection. By broadening its location selection criteria, including considering areas with known (or suspected) high-risk speeding, the significant shortage of suitable MSC locations could be addressed.

### MSC locations are selected in accordance with crash risk but they are not well prioritised

Transport for NSW and Roads and Maritime Services have established a process to schedule MSCs which is intended to use crash data to prioritise camera locations and sites. Approved MSC locations and their crash risk weightings are entered into the MSC scheduling system by Transport for NSW. The scheduling system uses an algorithm designed to randomise the camera schedule to ensure that camera deployment is not predictable.

We found that the MSC scheduling system is not prioritising locations well. Many higher risk locations are being visited less often than lower risk locations. For example, Exhibit 3 shows a comparison of the number of location visits with the relative crash risk weighting for the top 50 most visited locations in the Sydney metropolitan area in 2017. It demonstrates a lack of relationship between the number of location visits and the crash risk for each location.

**Exhibit 3: Top 50 location visits in Sydney metro compared to their crash risk weighting**



Source: Audit Office of NSW, based on Roads and Maritime Services and Transport for NSW data 2017.

### The MSC schedule is not random

Sixty locations across NSW were visited by MSCs more than 500 times in the last five years, eight visited more than a thousand times and one visited 1,768 times. The current lack of suitable locations and sites is likely to have contributed to this.

A 2011 report from the Victorian Auditor General's Office stated that regularly allocating a MSC to a single location effectively removes it from the mobile camera program, reduces the potential for greater geographic spread of cameras, and undermines the program's potential to create a higher level of general, network-wide deterrence.

An evaluation of Queensland's mobile speed camera program by the Monash University Accident Research Centre in 2003 found that higher levels of randomness in the selection of speed camera sites for operation were associated with greater crash reductions. Further, Transport for NSW states, in its MSC location selection process, that general deterrence of speeding will be addressed by having a large number of enforcement locations spread across a broad geographic area.



### MSC signage requirements have increased

MSCs in NSW use marked vehicles with signs placed both before and after the vehicle. A commitment made under the Speed Camera Strategy was to enhance warning signage for MSC vehicles to ensure motorists see and recognise the enforcement activity.

Prior to the release of the Strategy in June 2012, speed camera signage was being positioned 50 metres before and after the MSC vehicle on the same side of the road. The signage was double sided and enforcement was undertaken in both directions. Following the release of the Strategy, a government decision was made that MSCs should operate with an additional sign to be positioned approximately 250 metres before the MSC vehicle to warn drivers of the presence of a mobile camera.

#### Exhibit 4: Warning sign displaying speed limit



Source: Roads and Maritime Services 2018.

### Additional signage limits the effectiveness of the program

The Speed Camera Strategy media release stated that the purpose of the additional signage was to provide more advance warning. The signage is designed to make drivers aware that enforcement activities are in progress. It is not clear what value this level of signage offers to achieve this goal. Other options such as using a well-marked vehicle and placing one sign before and after the vehicle would have been sufficient to achieve this outcome.

The government decision to implement additional signage has had the impact of making it more difficult to enforce speeds in both traffic directions. MSCs can monitor up to four lanes in both directions, however speed enforcement has only been occurring in one traffic direction since the additional signs were implemented in 2012. This is because signs would have to be placed on both sides of the road to enforce in both directions.

Speed surveys indicate that fewer than 50 per cent of drivers comply with the 40 km per hour speed limit in school zones. The decision to use an indicative speed sign as part of the MSC signage has also made it more difficult to deploy MSCs in school zones because of the need to change the sign, in line with the change in speed limit during school zone hours, during the session.

A key aspect of providing an effective general network deterrence is creating a perceived risk of detection. However, the use of multiple warning signs provides drivers with general reassurance that they will receive an obvious warning to slow down before potentially being caught speeding. This limits the opportunity to moderate driver behaviour through causing drivers to be worried they could be caught anywhere, anytime. The low level of actual risk of detection is demonstrated by the high levels of compliance at MSC sites compared to light vehicle speed compliance across the road network. General speed surveys indicate 28 per cent of drivers travel at up to 10km/hr over the limit and over five per cent, or one in 20 drivers, at more than 10km over. However less than 0.1 per cent, or one in 1,000 drivers, that pass a MSC in NSW is fined.

It is worth noting that a further commitment under the Strategy was that the actual deployment of MSCs was to be based on findings from evaluations conducted of well-established MSC programs in jurisdictions such as Victoria and Queensland. In contrast with New South Wales, Queensland and Victoria deploy covert and unconcealed MSC vehicles, with limited or no signage. The number of infringements issued by MSCs in these jurisdictions is many times higher.

Research indicates the best way to maximise road safety outcomes is to maintain an element of randomness in camera deployments and to increase the use of covert deployment. Queensland uses covert cameras for up to 30 per cent of their overall program. The use of covert cameras is also widespread in Victoria. The National Road Safety Strategy also provides research supporting the use of covert cameras.

A Roads and Traffic Authority internal memorandum in June 2010 cited World Health Organisation research supporting the use of covert MSCs. It also cited OECD research supporting the use of MSCs without advanced warning signage, which was proven to have a strong deterrent effect. The memorandum also flagged safety concerns for operators in the deployment of signage.

### **Deployment of signage is costly and limits the number of sites that MSCs can be used**

There is a range of costs associated with implementing MSC signage requirements. Roads and Maritime Services advise that around 30 minutes is spent deploying and collecting signage for each two or three-hour camera session. Deploying signs puts the operators at risk of injury and signs routinely get stolen and damaged, which can disrupt a MSC session.

Signage requirements also limit the availability of suitable sites and mean more resources need to be devoted to assessing new sites and retiring others. Parked cars and other obstacles can further limit the use of many sites. Additional site maintenance, such as mowing, is required to ensure signs are visible.

## 2.3 MSC hours of operation

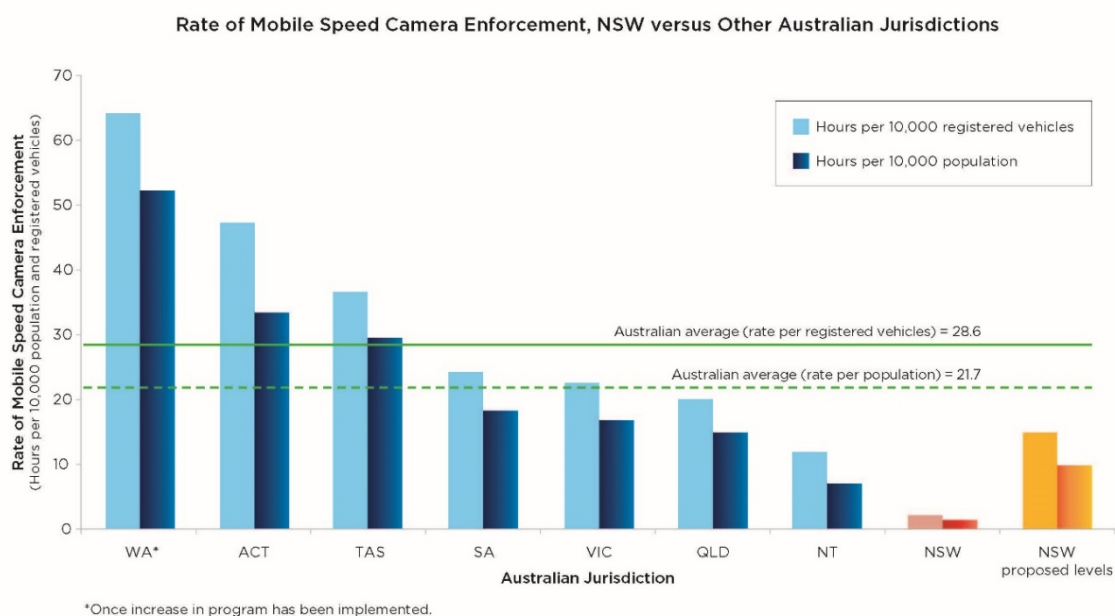
### There is no supporting justification to explain how hours of operation were determined

The Centre for Road Safety (now part of Transport for NSW) produced a research paper on mobile speed cameras in 2011 which recommended an increase in hours to a similar rate to Queensland and Victoria, citing significant improvements in road safety from a program of that size.

The MSC program was expanded from 930 hours per month of enforcement in 2012 to 7,000 hours in 2014. The Minister's announcement in 2012 stated that the proposed 7,000 hours of enforcement was equivalent to 9.7 hours of enforcement per 10,000 population which was smaller per capita than the scale of mobile speed camera programs in both Victoria (16.8 hours of enforcement per 10,000 population) and Queensland (14.9 hours of enforcement per 10,000 population).

Exhibit 5 displays a comparison of the rate of MSC enforcement in 2012, the proposed levels for NSW (i.e. 7,000 hours) and the rates of enforcement in other Australian jurisdictions at that time.

### Exhibit 5: Comparison of MSC enforcements rates in NSW and other jurisdictions



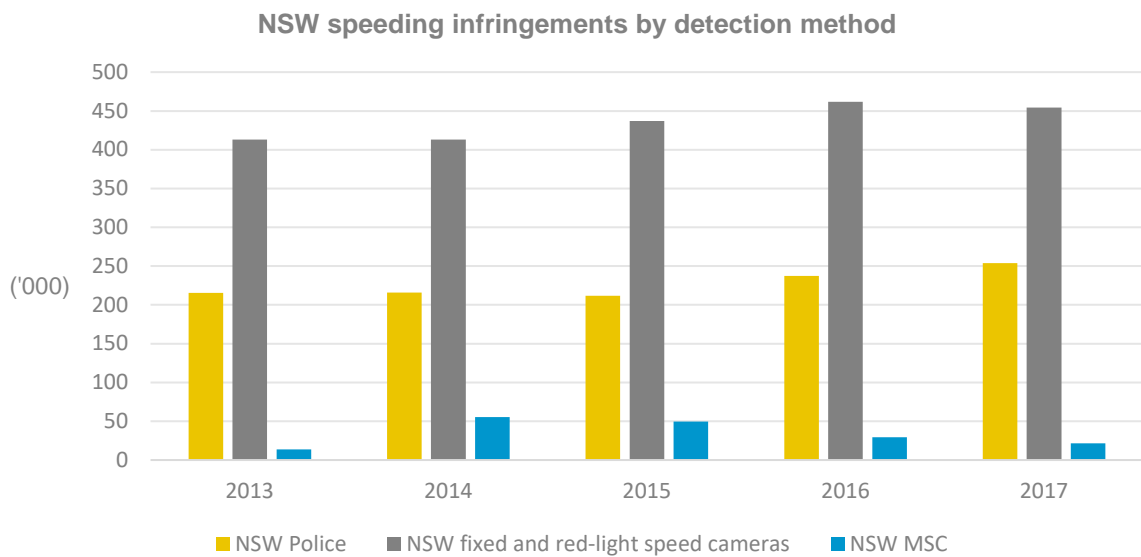
Note: Transport for NSW advises that at the time this was the planned program size for WA, however we understand that this wasn't implemented.  
Source: Transport for NSW 2012.

There is no evidence to indicate that analysis was undertaken to estimate the rate of enforcement required to achieve the program purpose of a general network deterrence to speeding, as outlined in the strategy, and effectively complement other enforcement activities.

It should be noted that differences in speed camera strategies in other jurisdictions mean that they are not directly comparable. However, NSW has around half the mobile camera units compared with Queensland and Victoria. This is despite it having a similar length of public road network as Queensland and a larger network than Victoria, with a greater number of vehicles.

The relatively small scale of the NSW MSC program is reflected in the number of infringements issued. Exhibit 6 compares the number of speeding infringements issued by NSW Police to those issued by MSCs and fixed speed and red-light speed cameras.

## Exhibit 6: NSW speeding infringements by detection method

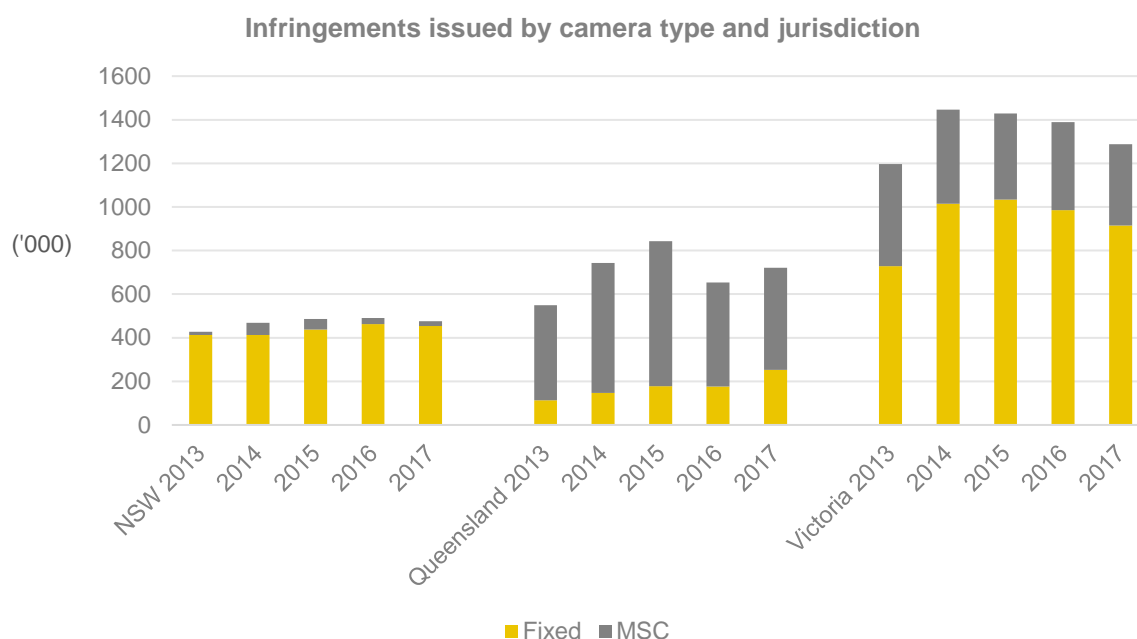


Source: Revenue NSW 2018.

The number of infringements issued by MSCs has declined from a high of 55,473 in 2014 to 21,346 in 2017. This means that speed compliance has improved at a limited number of MSC locations across the road network. For 2017, 12 times as many infringements were issued by NSW Police and 20 times as many by fixed speed cameras.

The relatively small scale of the MSC program, and the use of brightly marked vehicles and additional signage compared to other jurisdictions is also reflected in the number of infringements issued. Exhibit 7 compares the number of infringements issued by MSCs and fixed and red-light speed cameras in NSW, Queensland and Victoria.

## Exhibit 7: Infringements issued by camera type and jurisdiction



Source: Revenue NSW, Queensland Roads, Victorian Cameras Save Lives website.

In 2017 Victorian MSCs issued 17 times as many infringements as NSW MSCs and Queensland MSCs issued 22 times as many. It is important to note that we do not have speeding infringement data for police patrol intercepts in Victoria or Queensland. Unlike NSW, MSCs in Queensland are managed by Queensland Police and integrated with police patrols.

### MSC hours of operation align with crash risk

Transport for NSW developed a MSC deployment strategy, based on crash history, which prioritises MSC deployment across hours of the day and days of the week. The allocation of MSC hours across seven regions is also based on crash history and estimated costs of crashes to the community.

The deployment strategy, which forms part of each contract, was reviewed during the term of the previous contracts, which expired in March 2018. The Sydney region was split into two regions and some minor adjustments were made to regions based on crash risk.

## Exhibit 8: MSC operating hours by region per month

	Hunter	Northern	South Western	Southern	Sydney	Sydney (Northern)	Sydney (Southern)	Western
Previous contract	1,100	1,300	600	900	2,300	--	--	800
New contract	1,150	1,200	600	950	--	1,000	1,300	800

Source: Transport for NSW 2018.

The deployment strategy and clauses within the new contract allow for variations in the hours of operation of MSCs during the new five-year contract term if decisions are made to change the deployment strategy. The total hours per region cannot be easily varied.

### MSC total hours of operation are in accordance with contracts

The program operates at 7,000 hours of enforcement per month, which was announced with the Speed Camera Strategy in June 2012. Contracts were awarded to two vendors in 2013 to cover the six MSC regions. The contracts required around 2,400 hours per month for one contractor in two districts and 4,600 hours from another contractor in the remaining four districts.

Analysis of data on MSC sessions indicates that hours of operation were generally in accordance with the requirements for both contractors.

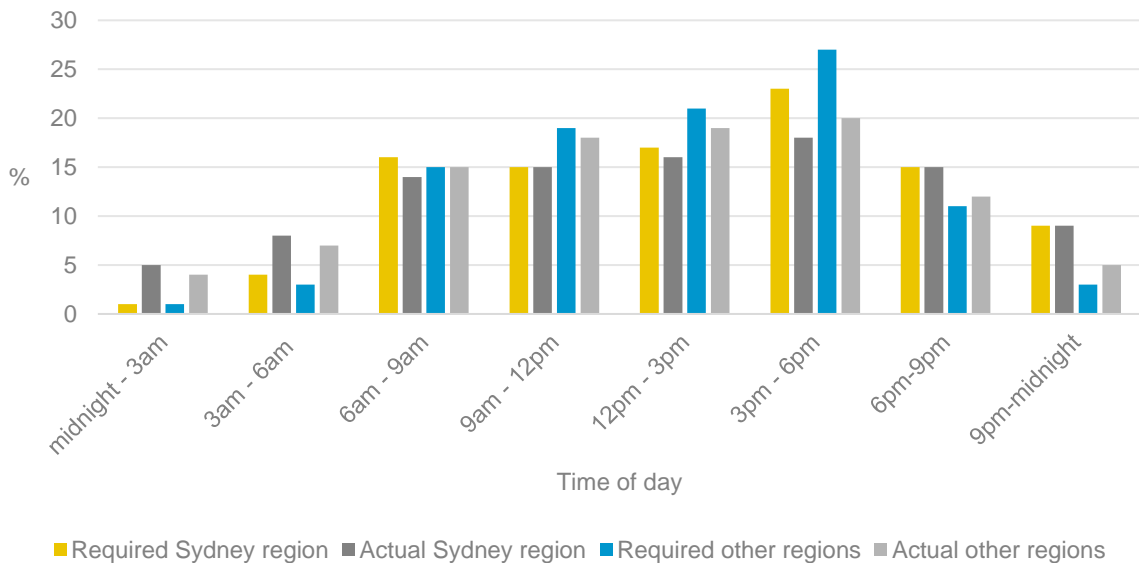
### MSC hours of operation align with the deployment strategy

MSCs have been operating in accordance with the deployment strategy. The only obvious variation from the deployment strategy was the breakdown of hours across the time of day where quiet times between midnight and 6am were over-serviced at the expense of some busier times.

The deployment strategy sets out the operating hours for Sydney and other regions in the proportions displayed in Exhibit 8. We found that the actual operating hours broadly align with these goals.

The strategy also requires daily deployments to operate in accordance with the proportion of total hours outlined in the table below. What we found was that the quieter times between midnight and 6am were over-serviced and busiest times between 12pm and 6pm were under-serviced. For example, between midnight and 3am the required proportion was one per cent of total hours but the actual was over four per cent.

**Exhibit 9: Percentage of MSC operations by time of day – comparison of required to actual**



Source: Roads and Maritime Services 2018 and Audit Office of NSW analysis.

We also expected MSC deployment to be broadly in line with the allocation of hours across days of the week in accordance with the following table.

**Exhibit 10: Proposed enforcement for days of the week**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
All regions	13%	13%	13%	14%	17%	17%	15%

Source: Roads and Maritime Services 2018.

We found that actual enforcement hours were broadly in line with these percentages, with greater levels occurring on Thursday, Friday and Saturday.

## 2.4 Alignment of MSCs with police patrols and other camera programs

### The MSC program complements other speed enforcement strategies

The Speed Camera Strategy states that an overarching speed camera strategy is necessary to ensure that:

- the different types of speed cameras are being used to reduce speeding at the various high-risk locations across the road network
- these camera programs are complementary to ensure their effectiveness is maximised.

The MSC program complements Police patrols by:

- sharing MSC schedules with NSW Police regions
- responding to NSW Police requests for MSC deployment
- ensuring they are not operating within one kilometre of police operations.

MSCs complement fixed speed cameras by operating in higher-risk areas which do not qualify for fixed cameras. Procedures ensure that MSCs have limited interaction with fixed, red-light speed and average speed cameras by ensuring they are not being positioned within one kilometre of a fixed speed or red-light speed camera, or within one kilometre of the start or finish of an average speed (point to point) camera site.

There is no specific policy to ensure the need for MSC enforcement is assessed when fixed speed cameras are removed from a location, however, Transport for NSW provided evidence to indicate that this does occur on a case by case basis where it is considered appropriate.



## 3. Management of MSCs

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### 3.1 MSC contract and tendering process

#### **The MSC contract specifies requirements for speed enforcement**

Roads and Maritime Services has a contract in place with a third-party provider for the provision of MSC services. The MSC contract specifies requirements necessary for speed enforcement. Under the contract specifications, the contractor must form a project control group with Roads and Maritime Services which will meet at least monthly throughout the contract term to discuss any issues arising, and to review contractor performance.

The contractor must promptly respond to any requests for information from Roads and Maritime Services, and attend any meetings requested, where the requests are made to enable Roads and Maritime Services to perform a review or inspection.

#### **Inadequate planning for the transition to a new contract resulted in a reduced level of enforcement for a period of 3 months**

On 4 August 2017, Roads and Maritime Services released a request for tender to outsource the provision of MSC services. Roads and Maritime Services did not adequately consider or plan for the potential for delays in the transition of services to a new contractor, including the gazettal of new camera equipment. Under the *Road Transport Act 2013*, all equipment used for mobile speed camera enforcement must be tested and officially approved for use (i.e. a Governor's order published in the NSW Government Gazette). Two testing stages are required; one for gazettal purposes, and the second for MSC vehicle testing under the terms of the contract.

The MSC contract was awarded in November 2017, but gazettal and testing did not begin until late January 2018, and approval was not provided until 16 May 2018. MSC vehicle testing did not occur until April 2018 after the vendor acquired the equipment necessary for provision of services (vehicles, cameras, etc). This ultimately caused delays in the transition of services to the new contract, which was scheduled to commence on 1 April 2018. Services moved from two vendors to a single vendor not yet fully equipped to manage the program. This resulted in a reduced level of service for several months and a delayed contract commencement date of 1 July 2018.

#### **The costs of mobile speed camera services have been reduced**

Previously, the operation of the mobile speed camera program had been shared between two vendors, at a cost of around \$22 million per year. The Roads and Maritime Services tender evaluation panel planned to review the shortlisted tender applications with a view to retain the two-vendor contract structure.

Once the final assessment of the tenders was completed, Roads and Maritime Services concluded that the additional cost of the lowest priced two-vendor contract when compared to the cost of a single-vendor contract would be too great. Using two vendors would have cost around \$19.15 million per year whereas awarding the contract to the winning tenderer as the sole vendor reduced costs to around \$14.5 million per year. This resulted in estimated net savings of \$7.5 million each year on the existing contracts.

The winning tenderer advised that these savings have been achieved through economies of scale, better camera systems and technological improvements, improved scheduling and better fleet management.



## 3.2 Oversight of MSC camera scheduling and contract requirements

### **Assurance processes are in place for some, but not all, camera scheduling and contract requirements**

A MSC scheduling system is in place that uses an algorithm to randomise the camera schedule. This is intended to ensure that camera deployment is in line with the deployment strategy and to make it unpredictable. The MSC system records all sessions but does not automatically flag when the schedule has not been met. Roads and Maritime Services routinely extracts a report from the system to gauge contractor compliance with the schedule.

There is regular communication and reporting between Roads and Maritime Services and contractor management. A project control group with representatives from the contractor and Roads and Maritime Services meets at least monthly throughout the contract term to discuss any issues arising, and to review contractor performance.

Complaints and queries are reported and responded to. The majority relate to:

- requests for certificates for camera equipment
- positioning of camera signage or lack of signage
- the location of camera sites, such as highways and overtaking lanes
- requests for speed cameras to enforce speed limits at particular locations.

The contract allows for inspections and audits to be carried out. Roads and Maritime Services conducted a recent work health and safety compliance audit on both of the contractors in November 2017. One of the audits identified significant WHS concerns regarding training, procedures and safety incident records.

Another Roads and Maritime Services audit report in 2017 found that a service provider was operating four MSCs for an “operation” within one kilometre of each other, in violation of Roads and Maritime Services business rules. Due to the categorisation of this new site as an “operation”, the system-generated schedule did not consider relevant business rules, such as other camera locations.

### **There is limited oversight of contractor compliance with procedures**

There is limited resourcing to check contract requirements and whether camera sessions are being delivered in accordance with the operational procedures. Roads and Maritime Services employs one compliance investigator who is responsible for compliance checks state-wide. Current monitoring and inspecting of vendors is limited due to resourcing constraints, the number of operating sites, and large geographical spread.

Roads and Maritime Services advises it plans to improve oversight of camera operations by recruiting additional resources. It also plans to examine opportunities to gather and analyse compliance data the contractor uses to manage its own operations. For example, schedule enforcement date/time, work health and safety conditions, usage of certified equipment and MSC vehicle speeds.

### **There is limited oversight of infringement culling**

The digital information for each MSC session is sent from the vehicle to the contractor's offices for processing prior to delivery to Revenue NSW and Roads and Maritime Services. This processing includes 'culling' of infringements that may not meet the strict evidentiary requirements such as obscured number plates.

The contractor advises that the complete session data is delivered to Roads and Maritime Services. However, Roads and Maritime Services does not analyse a sample of this data to ensure infringements are being culled appropriately. Although this process was identified as an assurance issue by Roads and Maritime Services in the previous MSC contracts, it was also included in the new contract.

Around seven per cent of infringements are culled by the contractor. The main reasons identified by the contractor for culling infringements are emergency vehicle (i.e. exempt); lane and image mismatch and unreadable plates and dark images.

In addition to the culling undertaken by the contractor, further culling is done by Revenue NSW. Data provided by Revenue NSW indicates that the proportion of MSC infringements it culls is around four per cent. The main reasons identified by Revenue NSW for culling infringements are emergency vehicle, image greater than 30 days old, unreadable plate (glare/reflective or image out of focus) and motorbike plate unreadable or no front plate.

## **Section two**

### Appendices



# Appendix one – Response from agency

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Ms Margaret Crawford  
Auditor-General  
Audit Office of NSW  
GPO Box 12  
SYDNEY NSW 2001

*Margaret*

Dear Ms ~~Crawford~~

Thank you for the opportunity to consider and respond to the Performance Audit Report on Mobile Speed Cameras.

Transport for NSW considers mobile speed cameras an important program that is reducing trauma on NSW roads by addressing speeding.

Transport for NSW and Roads and Maritime Services welcomes the opportunity the Performance Audit provides to optimise how mobile speed cameras are used in NSW to continue to improve road safety.

Transport for NSW and Roads and Maritime Services accept the recommendations when viewed in the context of the existing policy settings. Recommendations will be implemented within the context of the existing policy settings to improve the effectiveness and efficiency of the mobile speed camera program.

Transport for NSW will not review the number of hours mobile speed cameras are deployed or review the signage requirements for the mobile speed camera program, as these are existing Government policy settings.

Yours sincerely

**Rodd Staples**  
Secretary

14/10/2018

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Transport for NSW  
18 Lee Street, Chippendale NSW 2008 | PO Box K659, Haymarket NSW 1240  
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# Appendix two – About the audit

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## Audit objective

This audit assessed whether the mobile speed camera program is effectively managed to maximise road safety benefits across the NSW road network.

## Audit criteria

We addressed the audit objective by addressing the following criteria:

1. Mobile speed camera site selection, prioritisation and hours of operation are designed to maximise road safety benefits and are integrated with, or complement, other enforcement strategies including police patrols, radar coverage and other camera programs.
2. The sites selected and their hours of operation are regularly reviewed, in conjunction with key stakeholders, to maintain their effectiveness.
3. The mobile speed camera program is delivering on the commitments within the Speed Camera Strategy.
4. Contracts with camera operators specify requirements necessary for effective speed enforcement including camera locations, hours of operation, accuracy, evidence gathering, and how results are to be communicated.
5. Assurance processes are in place which are designed to ensure mobile cameras are operated, located and scheduled in accordance with the camera scheduling and contract requirements.

## Audit scope and focus

In assessing the criteria, we examined:

1. contracts with mobile camera operators
2. research and practice on the best approach to mobile speed camera enforcement
3. liaison and information sharing between Roads and Maritime Services, Transport for NSW, NSW Police and other key stakeholders
4. controls in place to gauge compliance with contracts
5. results of vehicle speed monitoring across the entire road network
6. the government's stated policy framework on mobile speed cameras
7. mobile speed camera operations in other jurisdictions.

## Audit Exclusions

The audit did not:

- examine the effectiveness of other speed and red-light speed cameras, although we may comment where they interact with, or are relevant to, the mobile speed camera program
- examine the effectiveness of police patrol and radar enforcement, although we may comment where it interacts with, or is relevant to, the mobile speed camera program
- conduct actual AO observation of contractor compliance. Rather, we are examining how Roads and Maritime Services assures itself that its contractors are complying
- question the merits of government policy objectives.

## Audit approach

1. Interviewing staff from the Roads and Maritime Services and Transport for NSW responsible for:
  - determining the sites/locations of mobile speed cameras
  - determining the hours of operation of mobile speed cameras
  - developing/generating mobile speed camera schedules
  - overseeing the tendering, awarding and operation of mobile speed camera contracts
  - reviewing the effectiveness of mobile speed cameras.
2. Interviewing mobile speed camera contractor management and camera operators at some locations.
3. Interviewing other stakeholders who have a role in the mobile speed camera program, including NSW Police.
4. Reviewing policies and procedures for determining camera location, hours of operation and effectiveness.
5. Reviewing mobile speed camera contracts.
6. Analysing data trends in speeding, crashes and infringements.

The audit approach was complemented by quality assurance processes within the Audit Office to ensure compliance with professional standards.

## Audit methodology

Our performance audit methodology is designed to satisfy Australian Audit Standard ASAE 3500 Performance Engagements and other professional standards. The standards require the audit team to comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance and draw a conclusion on the audit objective. Our processes have also been designed to comply with requirements specified in the *Public Finance and Audit Act 1983* and the *Local Government Act 1993*.

## Acknowledgements

We gratefully acknowledge the co-operation and assistance provided by our liaison staff from Transport for NSW and Roads and Maritime Services.

## Audit cost

Including staff costs, printing costs and overheads, the estimated cost of the audit is \$226,000.



# Appendix three – Performance auditing

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## What are performance audits?

Performance audits determine whether State or local government entities carry out their activities effectively, and do so economically and efficiently and in compliance with all relevant laws.

The activities examined by a performance audit may include a government program, all or part of an audited entity, or more than one entity. They can also consider particular issues which affect the whole public sector and/or the whole local government sector. They cannot question the merits of government policy objectives.

The Auditor-General's mandate to undertake performance audits is set out in section 38B of the *Public Finance and Audit Act 1983* for State government entities, and in section 421D of the *Local Government Act 1993* for local government entities.

## Why do we conduct performance audits?

Performance audits provide independent assurance to the NSW Parliament and the public.

Through their recommendations, performance audits seek to improve the value for money the community receives from government services.

Performance audits are selected at the discretion of the Auditor-General who seeks input from parliamentarians, State and local government entities, other interested stakeholders and Audit Office research.

## How are performance audits selected?

When selecting and scoping topics, we aim to choose topics that reflect the interests of parliament in holding the government to account. Performance audits are selected at the discretion of the Auditor-General based on our own research, suggestions from the public, and consultation with parliamentarians, agency heads and key government stakeholders. Our three year performance audit program is published on the website and is reviewed annually to ensure it continues to address significant issues of interest to parliament, aligns with government priorities, and reflects contemporary thinking on public sector management. Our program is sufficiently flexible to allow us to respond readily to any emerging issues.

## What happens during the phases of a performance audit?

Performance audits have three key phases: planning, fieldwork and report writing.

During the planning phase, the audit team develops an understanding of the audit topic and responsible entities and defines the objective and scope of the audit.

The planning phase also identifies the audit criteria. These are standards of performance against which the audited entity, program or activities are assessed. Criteria may be based on relevant legislation, internal policies and procedures, industry standards, best practice, government targets, benchmarks or published guidelines.

At the completion of fieldwork, the audit team meets with management representatives to discuss all significant matters arising out of the audit. Following this, a draft performance audit report is prepared.

The audit team then meets with management representatives to check that facts presented in the draft report are accurate and to seek input in developing practical recommendations on areas of improvement.

A final report is then provided to the head of the audited entity who is invited to formally respond to the report. The report presented to the NSW Parliament includes any response from the head of the audited entity. The relevant minister and the Treasurer are also provided with a copy of the final

report. In performance audits that involve multiple entities, there may be responses from more than one audited entity or from a nominated coordinating entity.

## **Who checks to see if recommendations have been implemented?**

After the report is presented to the NSW Parliament, it is usual for the entity's audit committee to monitor progress with the implementation of recommendations.

In addition, it is the practice of Parliament's Public Accounts Committee to conduct reviews or hold inquiries into matters raised in performance audit reports. The reviews and inquiries are usually held 12 months after the report received by the NSW Parliament. These reports are available on the NSW Parliament website.

## **Who audits the auditors?**

Our performance audits are subject to internal and external quality reviews against relevant Australian and international standards.

The Public Accounts Committee appoints an independent reviewer to report on compliance with auditing practices and standards every four years. The reviewer's report is presented to the NSW Parliament and available on its website.

Periodic peer reviews by other Audit Offices test our activities against relevant standards and better practice.

Each audit is subject to internal review prior to its release.

## **Who pays for performance audits?**

No fee is charged for performance audits. Our performance audit services are funded by the NSW Parliament.

## **Further information and copies of reports**

For further information, including copies of performance audit reports and a list of audits currently in-progress, please see our website [www.audit.nsw.gov.au](http://www.audit.nsw.gov.au) or contact us on 9275 7100.



## OUR VISION

Our insights inform and challenge government to improve outcomes for citizens.

## OUR PURPOSE

To help parliament hold government accountable for its use of public resources.

## OUR VALUES

**Purpose** – we have an impact, are accountable, and work as a team.

**People** – we trust and respect others and have a balanced approach to work.

**Professionalism** – we are recognised for our independence and integrity and the value we deliver.

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