Inquiry into Auditor-General Report to Parliament 2: 2015-16 Road safety – traffic cameras

Report No. 19, 55th Parliament
Transportation and Utilities Committee
June 2016
Transportation and Utilities Committee

Chair
Mr Shane King MP, Member for Kallangur

Deputy Chair
Mr Robert Molhoek MP, Member for Southport (until 18 Feb 2016 and from 11 May 2016)

Mr Matt McEachan MP, Member for Redlands (between 18 Feb 2016 and 11 May 2016)

Members
Mr Don Brown MP, Member for Capalaba (until 18 Feb 2016)

Mr Jason Costigan MP, Member for Whitsunday

Mr Dale Last MP, Member for Burdekin (Until 18 Feb 2016)

Mr Matt McEachan MP, Member for Redlands (from 18 Feb 2016)

Mr Robert Molhoek MP, Member for Southport (up to 11 May 2016)

Mr Linus Power MP, Member for Logan (from 18 Feb 2016)

Mr Rob Pyne MP, Member for Cairns (between 18 Feb 2016 and 15 Mar 2016)

Mr Chris Whiting MP, Member for Murrumba (to 18 Feb 2016 and from 15 Mar 2016)

Committee Staff
Ms Kate McGuckin, Research Director

Ms Rachelle Stacey, Principal Research Officer

Ms Lisa Van Der Kley, Executive Assistant

Ms Julie Fidler, Executive Assistant

Contact Details
Transportation and Utilities Committee
Parliament House
Cnr George and Alice Streets
Brisbane Qld 4000

Telephone: +61 7 3553 6633

Fax: +67 7 3553 6639

Email: TUC@parliament.qld.gov.au

Web: www.parliament.qld.gov.au/tuc

Acknowledgements
The Committee acknowledges the assistance provided by the Queensland Audit Office, the Department of Transport and Main Roads, the Queensland Police Service and the Centre for Accident Research and Road safety – Queensland.
Contents

Abbreviations 4
Chair’s foreword 5
Recommendation 6

1. Introduction 7
1.1 Role of the Committee 7
1.2 Role of the Auditor-General 7
1.3 Referral 7
1.4 Examination process 7

2. Examination of the Auditor-General Report 8
2.1 Background 8
  2.1.1 The Camera Detected Offence Program 8
2.2 Reason for this audit 9
2.3 Objective of this audit 9
2.4 Audit conclusions 9
2.5 Audit recommendations to QPS and DTMR 10
  2.5.1 Road safety outcomes—changing driver behaviour 10
  2.5.2 Site selection and deployment practices 12
  2.5.3 Enforcement 16
2.6 Committee comment and recommendations 19

Appendix A – Witnesses 20
Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANPR</td>
<td>Automatic Number Plate Recognition</td>
</tr>
<tr>
<td>CARRS-Q</td>
<td>The Centre for Accident Research and Road Safety – Queensland</td>
</tr>
<tr>
<td>CDOP</td>
<td>Camera Detected Offence Program</td>
</tr>
<tr>
<td>Committee</td>
<td>Transportation and Utilities Committee</td>
</tr>
<tr>
<td>DTMR</td>
<td>Department of Transport and Main Roads</td>
</tr>
<tr>
<td>ENACT</td>
<td>Enforceable Network by Automatic Number Plate Recognition Camera Technology</td>
</tr>
<tr>
<td>I-TAS</td>
<td>Integrated Tasking and Analysis System</td>
</tr>
<tr>
<td>MUARC</td>
<td>Monash University Accident Research Centre</td>
</tr>
<tr>
<td>PoQA</td>
<td><em>Parliament of Queensland Act 2001</em></td>
</tr>
<tr>
<td>QAO</td>
<td>Queensland Audit Office</td>
</tr>
<tr>
<td>QPS</td>
<td>Queensland Police Service</td>
</tr>
<tr>
<td>SMAC</td>
<td>Speed Management Advisory Committee</td>
</tr>
<tr>
<td>TSRS</td>
<td>Traffic Scheduling and Reporting System</td>
</tr>
</tbody>
</table>
Chair’s foreword

This Report presents a summary of the Transportation and Utilities Committee’s examination of the Auditor-General Report to Parliament 2: 2015-16 Road safety – traffic cameras.

The Committee considered the Auditor-General’s findings in relation to the effectiveness and operational integrity of the design and implementation of the Queensland Government Camera Detected Offence Program in terms of road safety outcomes.

On behalf of the Committee, I thank the Committee’s secretariat, the Queensland Audit Office, the Department of Transport and Main Roads, Queensland Police Service and CARRS-Q for their assistance with the Committee’s consideration of the Auditor-General Report.

I commend this Report to the House.

Mr Shane King MP
Chair

June 2016
Recommendation

Recommendation 1

The Committee recommends that the Minister for Main Roads, Road Safety and Ports and Minister for Energy, Biofuels and Water Supply; and the Minister for Police, Fire and Emergency Services and Minister for Corrective Services provide an update to Parliament about what strategies are being prioritised to address the disparity between the number of offences detected by the Camera Detected Offence Program and the number of offences that can be proceeded with.

Recommendation 2

The Committee recommends that the Legislative Assembly note the contents of this report.
1. **Introduction**

1.1 **Role of the Committee**

The Transportation and Utilities Committee is a portfolio committee of the Legislative Assembly which commenced on 27 Mar 2015\(^1\) under the *Parliament of Queensland Act 2001* (PoQA) and the Standing Rules and Orders of the Legislative Assembly.\(^2\)

The Committee’s primary areas of responsibility are:

- Transport and the Commonwealth Games
- Main Roads, Road Safety, Ports, Energy and Water Supply.

The Committee, under section 94(1) of the PoQA, has responsibility to assess the integrity, economy, efficiency and effectiveness of government financial management within its portfolio area. It can do this by examining government financial documents and considering reports of the Auditor-General of Queensland.

The Committee may deal with the matter under section 94(1) of the PoQA by considering the matter, reporting on the matter and making recommendations about it to the House.

1.2 **Role of the Auditor-General**

The role of the Auditor-General is to provide Parliament with independent assurance of public sector accountability and performance. This is achieved through reporting to Parliament on the results of its financial and performance audits.

A performance audit evaluates whether an agency or government program is achieving its objectives effectively, economically and efficiently, and is compliant with relevant legislation. It does not consider the merits of government policy. Rather, it focuses on how that policy is implemented.

The Auditor-General Report No. 2: 2015-16 Road safety – traffic cameras (Auditor-General Report) was prepared under Part 3 Division 3 of the *Auditor-General Act 2009* and was tabled in the Legislative Assembly in accordance with section 67 of the Act.

1.3 **Referral**

The Auditor-General Report was tabled in the Legislative Assembly on 13 Oct 2015 and in accordance with Standing Order 194B, was referred to the former Utilities, Science and Innovation Committee for consideration.

1.4 **Examination process**

The Committee requested a public briefing from the Queensland Audit Office (QAO) which was held on 2 Dec 2015. A further public briefing was held on 24 Feb 2016 with the Department of Transport and Main Roads (DTMR), the Queensland Police Service (QPS) and Centre for Accident Research and Road Safety – Queensland (CARRS-Q).\(^3\)

---

\(^1\) Commenced as the Utilities, Science and Innovation Committee on 27 Mar 2015 with its name changing on 18 Feb 2016 to Transportation and Utilities Committee.


\(^3\) CARRS-Q is the leading centre in Australia dedicated to research, education and outreach activities in road safety, and is a vital player in the international pursuit of road safety. See [CARRS-Q website](http://www.carrs-q.com) for further information.
2. Examination of the Auditor-General Report

2.1 Background

The Auditor-General Report advises that road safety experts recognise that disregard for speed and traffic signals is a significant cause of road crashes. The latest data available shows that on Queensland roads speed contributed to:

- 437 fatalities (22 per cent of all road fatalities) over 2008 to 2014
- 2172 hospitalisations (five per cent of all road hospitalisations) over 2008 to 2013.4

At the public briefing, DTMR advised the Committee of the impact speed related crashes have on the community:

Speed related crashes place a high cost on the community each year through hospitalisation, health care, lost productivity and cost of emergency services. Importantly, these are personal costs for the individuals involved in these road crashes and their families. In Queensland during 2014 there were 65 road deaths where speed was a contributing factor. This represents 29 per cent of the 2014 road toll of 223. For 2015, the calendar year to 31 October, there were 48 fatal road crashes resulting in 54 road deaths. Recent analysis by the Transport and Main Roads Data Analysis Unit has identified that road fatalities involving speeding have, however, decreased by approximately 50 per cent between 2007 and 2013.5

CARRS-Q explained the use of road safety cameras at the public briefing:

... managing speeds is critical to safe road use for everybody, and enforcement is needed because drivers and riders do not necessarily understand the level of risk that they place themselves at. Cameras are an efficient enforcement mechanism, and they are also able to divert speeding by increasing driver perceptions that they can be caught.6

2.1.1 The Camera Detected Offence Program

The Auditor-General Report advises that DTMR and the QPS work together to combat speeding and disobeying traffic signals through the Camera Detected Offence Program (CDOP) and that this program:

- has two primary aims which are to reduce speed related road trauma and the number of speeding drivers
- includes fixed and mobile speed cameras and red light cameras
- is responsible for detecting around 70 per cent of speeding and red light camera infringement notices issued in any one year.7

The Auditor-General Report also advises that over the last seven years to 30 Jun 2015, the QPS have issued 3,760,962 camera infringement notices, and DTMR has collected $667.3 million in fines. The number of cameras on Queensland roads has grown from 50 mobile, three fixed and 36 red light

---

4 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:1
5 DTMR, Hansard, Public Briefing, 24 Feb 16:7
6 CARRS-Q, Hansard, Public Briefing, 24 Feb 16:4
7 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:1
cameras in 2008–09; to 100 mobile, 41 fixed, seven combined speed and red light and 74 red light cameras and one Point-to-Point camera system. Understandably, there is a lot of public and media interest in the use of road safety cameras on Queensland roads. Most of this interest focuses on its efficacy in reducing the road toll and the perception that one of its aims is revenue raising. A key issue in this regard is getting the right balance between general and specific deterrence.

The results from road safety research demonstrates that one of the best methods to deter motorists from speeding is by deploying mobile cameras in an unpredictable way across approved mobile camera sites. This general deterrence effect is complemented by the specific deterrents from the fixed speed and red light camera network that target high risk locations or locations unsuited to mobile cameras.

From October 2014, the CDOP expanded to take primary responsibility for detecting and enforcing vehicle registration compliance using Automatic Number Plate Recognition (ANPR) cameras. The main aim of enforcing vehicle registration laws being that all vehicles on the road hold a current compulsory third party insurance policy – this covers the financial liability of a driver who causes road trauma or property damage.

2.2 Reason for this audit

The Auditor-General Report advises that the reason for undertaking this audit is that:

- speeding increases the risk and severity of road trauma
- from 1 Jan 2008 to 31 Dec 2014, speed related crashes were a contributing factor in 437 fatalities (22 per cent of all road fatalities) on Queensland roads
- speed-related crashes place a high cost on the community each year through hospital and health care costs, lost productivity in the workplace and the use of emergency services
- importantly, there are also personal costs for the individuals involved in road crashes and their families.

2.3 Objective of this audit

The objective of the audit was to establish whether, and how well, the CDOP is contributing to road safety outcomes. The audit addressed the objective through the following sub-objectives:

- establish whether the design of the CDOP is consistent with its objectives
- establish whether road safety outcomes are achieved effectively
- determine the level of integrity of the CDOP.

The cost of the audit was $349,000.

2.4 Audit conclusions

The Auditor-General Report concludes that the CDOP has contributed to motorists reducing speeds but could more effectively achieve its principal aim of general deterrence across the road network. Its enforcement activities have helped reduce speed-related crashes, but over the last 12 years it has not further reduced speed-related fatal crashes.

---

8 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:1
9 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:1
11 Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix B:61
12 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:18
Specifically, the Report determined:

- the number of crashes across all speed-related categories is decreasing except for speed-related fatal crashes which have remained relatively steady over the last five years
- more motorists are driving less than the speed limits with the average speed being less than the speed limit across all categories, except for 80km/hr speed zones on rural roads
- prior to 2014-15 detected offences per vehicle monitored was trending down across the road network, with the decrease greatest at fixed camera locations
- mobile cameras on average detect up to nine offences more per 1,000 vehicles monitored, than fixed cameras
- the number of infringements issued per hour of operation has increased due to the lowering of tolerance levels and increased covert deployments
- a delay in verifying crash data within the scheduling system is contributing to a move away from general deterrence to specific deterrence which is hampering the CDOP delivering further reductions in speed related crashes
- DTMR and QPS have only implemented or progressed nine of the 17 CDOP improvement recommendations made by road safety experts since 2009.

2.5 Audit recommendations to QPS and DTMR

The Auditor-General Report makes a number of recommendations to the QPS and DTMR on the operation of the CDOP program. The QPS and DTMR were provided with a copy of the Auditor-General Report prior to its publication and their detailed responses to the recommendations are included in the Auditor-General Report.

QPS and DTMR agree with all the Report’s recommendations, advising the Committee:

The level of collaboration that exists between the Queensland Police Service and Transport and Main Roads regarding the CDOP program is outstanding, and the united representation we have here today is testament to this. Both organisations support all of the Queensland Audit Office’s recommendations and we are progressing the necessary changes to further enhance the program.

A summary of the Report’s recommendations as well as the responses by the QPS and DTMR are outlined in the following sections.

2.5.1 Road safety outcomes—changing driver behaviour

The Auditor-General Report notes that results from DTMR speed surveys show some improvements in driver behavior and that from May 2010 to May 2014, in four of the five speed limit categories, the average speed of drivers was less than the speed limit. The Report also noted that the exception is the 80 kilometres per hour category on rural roads - while average speeds for this category have fallen by 2.2 per cent, they remain above the 80 kilometer speed limit and concluded:

The DTMR speed survey methodology is suitable, however, floods have limited the datasets, causing results to be less likely representative of driver behaviours across the state. Mobile cameras monitor all vehicle speeds. These datasets, particularly from covert police vehicles, could be used to strengthen the reliability of the findings of speed surveys.

---

13 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:19
14 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:50 to 60
15 DTMR, Hansard, Public Briefing, 24 Feb 16:8
16 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:2
The Auditor-General Report advises:

- since 2012–13 the number of motorists in the high speeding brackets (more than 13 kilometres per hour over the limit) has started to reduce

- to improve driver behaviour and road safety outcomes, the QPS reduced the speed tolerance limit—the amount drivers are allowed to drive above the posted speed limit without being fined and there had been an increase in the rate of motorists being fined for speeding in the lowest speed category as a result – however this is now trending back down, indicating that driving behaviour is slowly changing and adapting to the new lower limits

- for mobile cameras, research shows the use of covert vehicles is more effective than overt (marked and visible) vehicles in addressing network-wide speeding with covert deployments detecting more speeding drivers because motorists frequently do not see the camera and so do not adjust their speed and this is the primary reason that covert deployments detect 15.7 offenders per 1000 vehicles monitored compared to eight offenders for overt deployments.  

At the public briefing, CARRS-Q explained the difference between overt and covert camera deployments:

From the overt speed camera perspective, drivers see the cameras operating, they see signage on the road to say that cameras are operating, and that aims to increase their general perception that, ‘Yes, I can be caught because I see it happening.’ Covert enforcement is equally as important. Cameras here are operating without signage. The drivers and riders are not aware that camera speed enforcement is happening, so that aims to increase the uncertainty of where I might be able to be apprehended if I am speeding: ‘I know that they are out there somewhere but I cannot see them, so therefore maybe I will not speed.’ That links very closely to the concept of trying to enhance unpredictability. The report refers to the random scheduling that happens with the Queensland mobile speed camera program. That is very important to increase that perceived risk of apprehension: ‘I think I can get caught anywhere at any time.’ We see that as a very valuable component of the program, and that contributes to the general deterrent effect.

The Auditor-General Report advises that while a high percentage of covert deployments prompts a general deterrence to speeding, the QPS are not using covert deployments to their full potential despite having government approval to increase the hours of usage. The Report notes that while QPS has approval for 30 per cent of mobile camera hours to be undertaken covertly, in 2014–15, they only performed 16.3 per cent of mobile deployment hours covertly and that “this is in part because the QPS wants to avoid perceptions of revenue raising.”

The introduction of covert deployments arose from independent expert evaluations of the CDOP. Since 2009, further independent evaluations have recommended additional improvements to strengthen the CDOP, however only nine of the 17 recommendations have been implemented or progressed.

Outstanding CDOP improvement recommendations

The Auditor-General Report recommends that the QPS and DTMR address the outstanding CDOP improvement recommendations made by Monash University Accident Research Centre (MUARC) (Recommendation 1).

Since 2009, MUARC has evaluated the CDOP four times (see Appendix C of the Auditor-General Report for an outline of these reviews). Only nine of the 17 recommendations made since 2009 have been
implemented or progressed. The remaining recommendations relate to use of covert mobile cameras and scheduling sites for deployment.\textsuperscript{21}

QPS advised that outstanding recommendations from the formal external program evaluations would be reviewed and that a QPS Renewal Project is progressing improvements to the road safety camera scheduling processes.\textsuperscript{22}

DTMR advised that the new scheduling system would be completed by mid-2016 and indicated the recommendations relating to program evaluation would be completed by Dec 2016. This will acquit all the recommendations from the MUARC reports.\textsuperscript{23}

Reducing lag time in crash data

The Auditor-General Report recommends that the QPS and DTMR reduce the length of time taken to verify and analyse data so it can be used in a timely manner to inform program and deployment decisions (Recommendation 2).\textsuperscript{24}

While one of the aims of the CDOP is to reduce road trauma the QPS analysis and verification of crash data, which captures road trauma, is slow.\textsuperscript{25} The Auditor-General Report explains that this makes it difficult for decision-makers to assess the effectiveness of any changes to the program over the short-term. It also makes it harder to separate out and analyse the impacts where many changes are made to different aspects of the program over short periods. An example provided is the case with the recent increases in deployment hours combined with reduction in speed tolerances.\textsuperscript{26}

DTMR and the QPS advised they are committed to reducing the length of time to validate crash data.\textsuperscript{27} A project aimed at improving the efficiency of validating data has commenced but is behind schedule.\textsuperscript{28} QPS advised that additional temporary staff are currently reducing the backlog in cleansing road crash reports with a range of other data sets including hospital records.\textsuperscript{29} DTMR advised of the development of a new data loader to transfer crash data more effectively between QPS and DTMR.\textsuperscript{30}

### 2.5.2 Site selection and deployment practices

The Auditor-General Report advises that:

- if drivers know they can be fined for speeding anywhere and anytime, they are likely to modify their speeding behaviour overall—not just in specific localities
- frequency and unpredictability underpin the CDOP deployment system and site selection, deployment and the types of cameras all play a part in this.\textsuperscript{31}

\textsuperscript{21} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:29
\textsuperscript{22} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:52
\textsuperscript{23} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:57
\textsuperscript{24} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:28
\textsuperscript{25} Verified data is needed for two reasons: portions are reported to Commonwealth bodies for statutory purposes; and the Traffic Scheduling and Reporting System uses only crash data that is speed related.
\textsuperscript{26} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:28
\textsuperscript{27} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:52
\textsuperscript{28} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:28
\textsuperscript{29} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:52
\textsuperscript{30} Auditor-General Report 2: 2015-16, Road safety – traffic cameras: Appendix A:57
\textsuperscript{31} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:3
The Report also notes that:

- Speed Management Advisory Committees (SMAC) were established with representatives from DTMR, QPS, the Royal Automobile Club of Queensland and local government to approve nominated mobile speed camera sites
- QPS can only deploy to these sites
- the SMAC’s decisions are based on crash history, crash potential and road safety outcomes and they have approved a large pool of sites across the road network
- QPS does not visit approximately a third of these approved sites in any one year, with approximately one in seven sites (14 per cent) not visited over a three-year period. This brings into question why these sites were chosen in the first place and why they continue to be approved sites
- in deciding which sites to deploy to, the program intent was that police would rely primarily on the site scheduling system developed by the QPS and DTMR—the Traffic Scheduling and Reporting System (TSRS)
- the TSRS has a weighted randomised selection process which builds in the unpredictability required to produce a general deterrence effect
- researchers have modelled a 7.7 per cent reduction in serious casualty crashes where the scheduling system was used for 80 per cent of all camera deployments compared to where it was used for only 20 per cent, proving its efficacy
- however, in 2013–14, two per cent of the available sites accounted for 18.1 per cent of all deployments; these sites were attended more frequently than the site scheduling system recommended and while they had high traffic volumes they did not have serious crash rates
- the higher traffic volumes at these sites result in more infringements being issued compared to other sites.

The Auditor-General Report notes:

The QPS justifies the frequent attendance at these sites because of their crash potential. However, attending these sites more frequently than the TSRS recommends exposes the QPS to potential claims of revenue raising. And yet, the QPS make other deployment decisions about the use of covert cameras to avoid perceptions of revenue raising.

In relation to the TSRS, the Auditor-General Report advises of some known shortcomings:

- it relies on crash data which takes many months for the QPS to verify before it can be included into the system
- it does not recommend the best day of the week, or best time of the day, to deploy speed cameras to sites.

The Report goes on to state that although the five-year trend for serious casualty crashes shows instances are rising on Fridays, Saturdays and Sundays, as well as in the evening and at night, QPS mostly deploys cameras to sites during standard working hours on weekdays:

Instead of addressing the limitations of the TSRS, police increasingly use another system—the Integrated Tasking and Analysis System (I-TAS) to choose at which approved sites they will deploy their cameras. The routine use of I-TAS is not endorsed by DTMR for frequent camera deployments.

While the I-TAS provides real-time information, it uses both verified and unverified data, and unlike the TSRS, it does not nominate sites. When police make the decisions about which sites to deploy

32 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:3
33 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:3
34 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:3
there is a high risk that the element of unpredictability provided by the scheduling system—a key driver of the general deterrence effect—is lost.

Leaving deployment decisions open to subjective judgments based on unverified data and personal preferences, can erode public confidence in the system. Encouragingly, the QPS has now secured funding to develop an improved scheduling system. 35

At the public briefing held on 2 Dec 2015, the Committee asked the QAO which operational police regions they attended as part of the Audit. The QAO advised the Committee that the Audit team attended Deception Bay and Nambour police stations to observe and better understand mobile camera operations:

The primary reason for selecting these police stations was to better understand falling compliance levels with the Camera Detected Offences Program (CDOP) scheduling system. The Deception Bay police station, for example, is located in the Moreton Bay region, where compliance with the scheduling system had decreased from over 90 per cent between 2009 and 2010 to just over 40 per cent in 2013.

In examining CDOP operations at these stations, the audit team’s inquiry covered:

- Use of scheduling system and alternative systems
- Management of speed camera sites
- Training of camera operators
- Deployment of cameras, including camera types
- Identification and communication of issues. 36

CARRS-Q advised the Committee that it had been commissioned by Austroads to prepare a report on interventions that could potentially be trialled in Australian and New Zealand to increase public demand for safer speeds and that there has been a shift in community attitudes towards a variety of driver and rider behaviours, including the use of covert and overt enforcement:

I was actually a bit surprised at the last Queensland survey. This relates particularly to the use of covert or overt enforcement, so whether people can see or not see hidden speed cameras. There is a strong level of agreement for both types of enforcement, one much higher than the other. I think 84 per cent was the 2014 figure for marked police enforcement. That is high. It was not as high for covert enforcement. From memory it was 63 per cent, a two-thirds figure. 37

Further:

Let us face it: people do not like getting speeding tickets, but the level of acceptance of police enforcement certainly has been shown to be increasing for a number of years now in the Queensland data and also the national survey that happens every year. 38

Review approved mobile camera sites

The Auditor-General Report recommends that QPS and DTMR comprehensively review all approved mobile camera sites for their ongoing appropriateness (Recommendation 3). 39

The Report notes that since the CDOP commenced in 1997, the Executive Management Committee has progressively expanded the criteria they use to determine where speed cameras can operate: crash history as the primary criterion and crash potential secondary; documented and validated public

---

35 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:4
36 QAO, Answer to QTON, 2 Dec 2015:1
37 CARRS-Q, Hansard, Public Briefing, 24 Feb 16:4
38 CARRS-Q, Hansard, Public Briefing, 24 Feb 16:5
39 Auditor-General Report 2: 2015-16, Road safety – traffic cameras:40
complaints and stakeholders’ local knowledge of problem locations; and road works site to ensure the safety of road workers.\(^{40}\)

The Auditor-General raises a concern that while, over time, changes in crash rate, crash risk, road infrastructure, and/or speeding behaviour can make an approved site redundant or less important DTMR has not undertaken a formal review of existing sites since the guidelines were implemented in 2007.\(^ {41}\)

QPS responded that this is a complex and involved process which involves includes a range of environmental and operational factors and that QPS, along with DTMR, are committed to maintaining a best practice model to ensure the appropriateness of camera sites:

> The QPS is currently developing a new system based approach to improving deployment of mobile speed cameras. The development of this system and the camera operational deployment rules are being reviewed by the QPS in consultation with TMR. The review will include mobile speed camera site management processes to ensure the integrity of the Camera Detected Offence Program is maintained through an evidence based approach.\(^ {42}\)

**Increase covert deployment of mobile cameras**

The Auditor-General Report recommends that the QPS and DTMR increase covert deployment of mobile cameras to cabinet approved levels (Recommendation 4).\(^ {43}\)

The Auditor-General Report states that:

- QPS had approval to operate its mobile speed cameras for 95,000 hours during 2014–15 (103,367 actual hours performed)
- however, while up to 28,500 hours (30 per cent) were approved to be operated covertly, in 2014–15, QPS recorded performing 16,832 hours (16.3 per cent) covertly
- had the QPS deployed 30 per cent of mobile speed cameras covertly in 2014–15, approximately 33,879 additional infringement notices would have been issued, reinforcing the aim of the program to deter speeding drivers from re-offending.\(^ {44}\)

The QPS advised it has approved funding to increase the number of mobile speed camera vehicles which will provide for a greater distribution across approved camera sites including mobile speed camera operations.\(^ {45}\) DTMR advised it will provide support to QPS in the implementation of this recommendation.\(^ {46}\)

**Increase the rate of night time and weekend deployment of mobile cameras**

The Auditor-General Report recommends that the QPS and DTMR increase the rate of night time and weekend deployment of mobile cameras (Recommendation 5).

The Auditor-General Report found that more speed cameras are deployed on weekdays but more speed related crashes occur on the weekends and that a similar scenario applies to the time of day that cameras are deployed – more night time deployment would likely reduce speed-related crash rates.\(^ {47}\)

---

\(^{40}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras:33
\(^{41}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras:33
\(^{42}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:52 and 58
\(^{43}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras:40
\(^{44}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras:40
\(^{45}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:53
\(^{46}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:58
\(^{47}\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras:38 and 39
The QPS advised it will implement this recommendation in conjunction with the implementation of a new mobile phone speed camera scheduling system which was due to commence from mid-2016 with refinement in Dec 2016. DTMR advised it would support the QPS by providing information on the time of day for crash data and that data analysis will be ongoing as the risk periods will shift with enforcement practices and other treatments including engineering solutions.

2.5.3 Enforcement

The Auditor-General Report notes that QPS issue infringement notices to encourage drivers to change their behavior and provided the following fines issued in 2014-15:

- QPS issued 841,401 infringement notices under the CDOP with an estimated value of $167 million
- $135.8 million was collected from motorists
- The CDOP accounts for approximately 70 per cent of all issued infringement notices for speeding and running red lights.

While the revenue collected is required first to be spent on administering the CDOP, remaining surpluses are used to improve state controlled roads, in road safety education and awareness, and in supporting trauma services.

The Auditor-General Report states that:

- the process to issue infringements is reliable but labour-intensive
- only a low percentage are waived or successfully challenged in court
- over the last five years, a combination of poor film quality in analogue cameras and unclear number plates (certain personalised plates, obscured and unclear plate covers) have contributed to a growing number of detected offences (13.1 per cent) not being issued as infringements
- beyond replacing analogue cameras with digital cameras progressively over three years, neither QPS nor DTMR is working effectively to identify the types of personalised plates causing problems or to resolve the issues that make personalised or covered plates hard to read
- technology problems and the response to them are also issues for the Enforceable Network by Automatic Number Plate Recognition Camera Technology (ENACT) project which is a key tool to detect unregistered vehicles, replacing the need for drivers of light vehicles to display registration stickers
- DTMR were behind schedule in rolling out ENACT and the QPS portion of the project has been placed on hold
- the DTMR automatic number plate recognition (ANPR) cameras which are in place can only correctly interpret infringements 19.1 per cent of the time which leads to a great deal of manual checking
- insufficient cameras have been installed in police cars and that despite the fact that the ENACT project plan included the integration of the QPS in-car cameras and DTMR systems, this has not happened and is not scheduled to happen
DTMR is currently focusing on heavy vehicle compliance, rather than light vehicles which means there is the potential for more unregistered (and uninsured) vehicles on the road and a potential loss of revenue which could be used to improve road safety in Queensland.\textsuperscript{52}

The use of speed cameras as a deterrent for speeding motorcyclists was also raised by the Committee at the public hearing. QPS advised:

> We have some wonderful support from the Department of Transport and Main Roads—and this is actually linked to the traffic camera program—where up until now we have had two covert motorcycles in our fleet for the state. Within the next few weeks we will be rolling out another four which are provided for out of this program. They are actually part of the traffic camera program. They will be fitted with and operate what is called a true-cam device, which is actually part of the traffic camera program.\textsuperscript{53}

**Unclear number plates**

The Auditor-General Report recommends that the QPS and DTMR identify and quantify the cause of unclear plates and address enforcement and design issues effecting the ability to issue infringements (Recommendation 6).\textsuperscript{54}

QPS advised that significant achievements are being realised as obsolete film based road safety cameras are being replaced and it will work with DTMR and key stakeholders to review the design, characteristics and installation of registration plates. QPS stated they would also support DTMR in the review of current legislation and sanctions in respect to the fitting and display of plates.\textsuperscript{55}

**Increase the number of ANPR cameras in QPS cars**

The Auditor-General Report recommends that QPS and DTMR put automatic number plate recognition (ANPR) cameras that also store images in more QPS cars and enforce vehicle registration compliance in the urban and suburban setting (Recommendation 7).\textsuperscript{56}

QPS advised that recommendation 7, to expand the number of QPS ANPR cameras or to incorporate the images and metadata from the QPS ANPR cameras into the DTMR automated processing systems, will require additional funding. The QPS stated that it is currently refreshing its ANPR fleet of cameras through an evaluation and procurement process and that this project is funded and scheduled to be completed by mid-2016.\textsuperscript{57}

QPS advised that unregistered/uninsured vehicles detected through the existing QPS Speed and Red Light Camera systems are provided to DTMR for review and prosecution.\textsuperscript{58}

DTMR advised other methods employed to detect unregistered/uninsured vehicles which included:

- QPS on-road officers and DTMR Transport Inspectors are able to identify and intercept unregistered/uninsured vehicles
- Unregistered/uninsured vehicles caught speeding via the CDOP are also then referred to DTMR Prosecutions Unit who issue a further infringement/s for driving an unregistered and/or uninsured vehicle.\textsuperscript{59}

\textsuperscript{52} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:4
\textsuperscript{53} QPS, Hansard, Public Briefing, 24 Feb 16:14 and 15
\textsuperscript{54} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:47
\textsuperscript{55} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:53 and 59
\textsuperscript{56} Auditor-General Report 2: 2015-16, Road safety – traffic cameras:47
\textsuperscript{57} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:54
\textsuperscript{58} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:54
\textsuperscript{59} Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A:59
Fix software recognition limitations to improve ANPR enforcement processes

The Auditor-General Report recommends that the QPS and DTMR fix the software recognition limitations to improve the efficiency of the ANPR enforcement processes (Recommendation 8).

DTMR advised that significant improvements have recently been achieved with the ANPR software and that DTMR is committed to an on-going program with suppliers and internal technical stakeholders to continually improve the software and camera performance.\(^60\)

At the public briefing, the Committee queried the percentage of potential detections which are not prosecutable. QPS advised:

> When we detect offences through the cameras, we have to rely upon sufficiency of evidence. The QAO report complimented us on having a rigorous process to adjudicate those images. That is the primary path: the information in the image which is evidence of the facts. If the image of the registration plate is not clear, we cannot proceed with it. We cannot take it before the court. So there is a percentage of offences that are not proceeded with because the image is unclear. Mr Keating touched on that when he talked about using film based cameras. There are other issues in regard to no plate being fitted. If it is unregistered, we still proceed with it. If it is a stolen plate obviously we do not. There is a whole range of issues why we would not proceed with it....

> In relation to the issue of prosecutability...it is about 86 per cent in the most recent report in November 2015, and that is improving on November 2014 which was down at 81 per cent. There is an increase in the prosecutability that we are seeing as technology is evolving....

> There are a number of innovations technology wise which are coming online and have already been delivered which will significantly improve our ability to identify, target and track these repeat offender, high-risk people.\(^61\)

At the public briefing the Committee asked the QAO about difficulty in detecting some colour designed licence plates. QAO noted that of those fines that were unable to be enforced, unclear plates were the greatest proportion.\(^62\) In relation to colour designed plates, QAO advised:

> One of the limitations in being able to answer that question definitively is the limitation of what level of information was being recorded in the system when infringements were not being issued because the plates were unclear. Certainly a high number of them were unclear plates and police had categories for saying whether the plates were personalised plates or there are other factors, but quite often they were not going down to that level of detail, they were just saying no, we are not going to issue an infringement notice because the plate was unclear. Anecdotally, the police told us that there were some issues with some colours that were not necessarily as conducive to being photographed as other colours. All the plates are tested by police prior to being released in conjunction with TMR.\(^63\)

The Committee also asked a further question on this to DTMR at the public hearing on 24 Feb 2016. DTMR advised:

> Historically whenever we have discovered plates that were difficult to detect— and there have been issues with the quality of paint used on plates at times with the contrast—we have the power to do a recall of those plates, and we have exercised that power at different times.\(^64\)

---

\(^60\) Auditor-General Report 2: 2015-16, Road safety – traffic cameras, Appendix A: 54 and 60  
\(^61\) QPS, Hansard, Public Briefing, 24 Feb 16:10  
\(^62\) QAO, Hansard, Public Briefing, 2 Dec 15:5  
\(^63\) QAO, Hansard, Public Briefing, 2 Dec 15:6  
\(^64\) DTMR, Hansard, Public Briefing, 24 Feb 16:11
2.6 Committee comment and recommendations

Committee Comment

The Committee is very aware of the importance of managing speed on Queensland roads and notes the current statistics that show speeding contributes to:

- 437 fatalities (22 per cent of all road fatalities) over 2008 to 2014
- 2172 hospitalisations (five per cent of all road hospitalisations) over 2008 to 2013.

The Committee is also cognisant of the impact of speed related crashes on the community.

The Committee notes the conclusions and recommendations made by the Auditor-General in Report No. 2: 2015-16 Road safety – traffic cameras. The Auditor-General Report considered the design and implementation of the Camera Detected Offence Program (CDOP) and assessed its operational integrity to determine how effectively it contributes to road safety outcomes.

The Committee notes the key conclusion of the Auditor-General Report that the CDOP contributed to motorists slowing down but could more effectively achieve its principal aim of general deterrence across the road network. Also, that the CDOP enforcement activities have helped reduce speed-related crashes, but over the last 12 years has not further reduced speed-related fatal crashes.

The Committee notes the Auditor-General Report’s eight recommendations that the QPS and DTMR:

1. address outstanding CDOP improvement recommendations
2. reduce the length of time taken to verify and analyse data so it can be used in a timely manner to inform program and deployment decisions
3. comprehensively review all approved mobile camera sites for their ongoing appropriateness
4. increase covert deployment of mobile cameras to cabinet approved levels
5. increase the rate of night time and weekend deployment of mobile cameras
6. identify and quantify the cause of unclear plates and address enforcement and design issues effecting the ability to issue infringements
7. put Automatic Number Plate Recognition (ANPR) cameras that also store images in more QPS cars and enforce vehicle registration compliance in the urban and suburban setting
8. fix the software recognition limitations to improve the efficiency of the ANPR enforcement processes.

The Committee also notes that both QPS and DTMR agree with all the Report’s recommendations and are progressing implementation.

The Committee is concerned about the disparity between the number of offences detected by the CDOP and the number of offences that cannot be proceeded with due to various factors, including unclear licence plates, unregistered vehicles and unlicensed drivers. The Committee has noted the QPS advice that there are a number of technological innovations coming online, or already delivered, which will significantly improve the ability to identify, target and track repeat offender and high-risk people. The Committee is recommending that the relevant Ministers provide an update to Parliament about what strategies are being prioritised to address this disparity.

Recommendation 1

The Committee recommends that the Minister for Main Roads, Road Safety and Ports and Minister for Energy, Biofuels and Water Supply; and the Minister for Police, Fire and Emergency Services and Minister for Corrective Services provide an update to Parliament about what strategies are being prioritised to address the disparity between the number of offences detected by the Camera Detected Offence Program and the number of offences that can be proceeded with.

Recommendation 2

The Committee recommends that the Legislative Assembly note the contents of this report.
### Appendix A – Witnesses

#### Queensland Audit Office Public Briefing
Wednesday, 2 Dec 2015

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Witnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queensland Audit Office</td>
<td>Ms Daniele Bird, Assistant Auditor-General, Performance Audit</td>
</tr>
<tr>
<td></td>
<td>Mr Darren Brown, Director, Performance Audit</td>
</tr>
</tbody>
</table>

#### Public Briefing
Wednesday, 24 Feb 2016

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Witnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre for Accident Research and Road Safety (CARRS-Q), Queensland University of Technology</td>
<td>Dr Judy Fleiter, Research Fellow</td>
</tr>
<tr>
<td></td>
<td>Professor Narelle Haworth, Director</td>
</tr>
<tr>
<td></td>
<td>Dr Angela Watson, Research Associate/Research Methods Adviser</td>
</tr>
<tr>
<td>Queensland Police Service</td>
<td>Inspector Allan Hales</td>
</tr>
<tr>
<td></td>
<td>Assistant Commissioner Mike Keating</td>
</tr>
<tr>
<td></td>
<td>Road Policing Command</td>
</tr>
<tr>
<td>Department of Transport and Main Roads</td>
<td>Mr Peter Kolesnik, Director (Road Safety Portfolio), Customer Service, Safety and Regulation</td>
</tr>
<tr>
<td></td>
<td>Mr Mike Stapleton, Deputy Director-General, Customer Service, Safety and Regulation</td>
</tr>
<tr>
<td></td>
<td>Mr Dennis Walsh, General Manager, Land Transport Safety, Customer Service, Safety and Regulation</td>
</tr>
<tr>
<td></td>
<td>Mr John Wroblewski, General Manager, Customer Service, Safety and Regulation</td>
</tr>
</tbody>
</table>