

Safety Camera Strategy

Automated safety enforcement



» SAVING LIVES ON OUR ROADS

Western Australia has one of the highest road trauma rates in the country. Too many West Australians lose their lives in crashes; too many suffer from long-term injury.

In 2023 alone, 158 people were killed and over a thousand seriously injured in road traffic crashes across our State. Many of these could have been prevented.

The State Government's *Driving Change Road Safety Strategy 2020-2030* sets a target to reduce the number of people killed or seriously injured by 50%-70% by 2030, and to zero by 2050. This is not an unrealistic target. While a range of road safety initiatives are required to get us there, improvements in technology, and a focus on a broader range of driving offences are key elements that will assist in achieving our target.

Safety cameras are a key part of the solution. Safety camera technology is proven to be effective at both detecting and deterring unsafe driving behaviours. Their ability to be deployed anywhere, anytime allows them to change driver behaviour, as the risk of being caught is a strong motivator to drive safely for many. Western Australia is the largest State in the country and travelling long distances is common for many drivers.

Sadly regional road fatalities are vastly over-represented each year. Most regional areas have either limited or no exposure to safety cameras. Improvements in technology mean many past impediments for regional use are resolved.

Whilst some may think of them as only 'speed' cameras, safety cameras are able to provide a wide variety of road safety behaviour change. Recent advances in the accuracy and capability of safety cameras and the supporting technology means we can do more to reduce the unacceptable trauma rates on our roads.

Mobile phone use and unrestrained drivers can now be detected and enforced automatically by cameras, as well as average and spot speeds. Camera technology providers continue to tackle our road safety problem, working on developing ways to detect other offences such as drug and drink driving, and tailgating.

The rest of the country is leading the way. Queensland, New South Wales, Victoria and the ACT have all recently deployed new camera technology, and are already seeing the benefits. All have a better road trauma performance than WA.

It is important to note that all safety camera generated traffic fines are paid into the Road Trauma Trust Account and these funds must be used for road safety initiatives. This is protected by legislation.

It is now time for WA to update its approach, and move to a contemporary, principles-based and data driven safety camera strategy that makes better use of tried and tested technology.

This WA Safety Camera Strategy provides the framework for uplifting our road offence detection, deterrent and enforcement capabilities and capacity, and sets us on the path to achieving zero harm on our roads.



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Automatic safety enforcement

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Acknowledgment of Country

The Western Australian State Government acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures – and to Elders both past and present.

Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. Aboriginal and Torres Strait Islander may be referred to in the national context.



» Commissioner's Foreword



Safety cameras work. Love them or loathe them, the role camera technology has played in improving road safety in Australia cannot be denied. When the first speed cameras were introduced in WA some 30 years ago, a staggering 242 people died on our road (over 15 deaths per 100,000 equivalent to over 390 deaths today). Since then, our roads, vehicles and drivers, have become safer, and the number of people killed or seriously injured has continued to fall, dropping to 5.5 deaths per 100,000 in 2023.

While we have improved over the last 30 years our progress has stalled and the simple fact is that too many people are still dying and being traumatically injured on our roads each year. Every life lost is one too many. We can and must do better. Over the past decade, mobile phones have become ingrained in our lives. They are easy to pick up, and much harder to put down. This is true for many people behind the wheel, who cannot resist the temptation of using their phone while driving.

In doing so, they increase their risk of crashing by four times or more. We all know it only takes a split second of inattention for people to get hurt. It simply is not worth it.

While distracted drivers are a growing problem, recent experience shows drivers who don't buckle up are also a concern in WA.

Front seatbelts have been mandatory in WA for over 50 years. Yet worryingly, in 2023 there were 23 people who died on WA roads who were not wearing a seatbelt. While seatbelts do not prevent a crash, they have a significant impact on the severity of a crash and are an important lifesaving device. For most of us, clicking your seatbelt into place as you get in the car is second nature, we do it without a thought. But recent data, including evidence from our safety camera trial, shows there are still thousands of drivers and passengers on our roads who are not wearing seatbelts. Are we becoming complacent? Busier? Or do we think a crash just won't happen to us?

Whatever the reason, if we want to save lives on our roads we must look at new ways to get more people doing more of the right things, more of the time.

This is why we are introducing this new Safety Camera Strategy. Just as driving behaviours have changed over the past decade, so too has camera technology. Cutting edge safety camera and associated artificial intelligence mean we can now use cameras for more than catching speeding motorists and drivers running red lights.

Our strategy is not all about catching people doing the wrong thing. We want to deter drivers from doing the wrong thing in the first place. The fear of getting caught is a powerful deterrent, but we will also complement this with clear communication, behavioural change programs, and a review of the penalty regime.

Adrian Warner
Road Safety Commissioner

» Message from the Minister for Road Safety



The State Government is strongly committed to reducing the number of people killed or seriously injured on Western Australian roads by 50-70% by 2030. Driving Change, our Road Safety Strategy for Western Australia 2020-2030 is firmly in place as the framework to guide us on this ambitious road safety journey.

While we have seen positive change in the number of serious injuries on our roads, with the most recent figures showing a 7% reduction compared to the previous five year average, the number of deaths has remained consistent. Consistently too high.

I want to end the senseless loss of life on our roads but we simply cannot do the same things and expect different results. This is why I am proud to introduce the Safety Camera Strategy.

The strategy provides guiding principles for how our State will use safety cameras effectively and transparently to save lives on our roads.

There is no question in my mind that the fear of getting caught positively influences driver behaviour for a large portion of our community. While it is just one of many tools we use to keep people safe on our roads, it is an important and effective one which will be in place across our State in both metro and country areas.

Our police do an incredible job enforcing the law but in a State with 180,000 kilometres of road, spread over 2.5 million kilometres, they simply can't be everywhere.

Embracing new camera technology, such as that used in our world-first mobile point to point safety camera trial, will allow us to more efficiently target more offences, in more places.

Of course, there is no silver bullet when it comes to road trauma. The State Government will continue to invest in our roads, particularly our regional roads. We will continue to grow our police presence and behaviour change campaigns to encourage safe driving.

My hope in introducing and implementing this strategy is safer roads for every Western Australian. It's for less police knocking on doors to deliver the devastating news a loved one has been killed in a crash. It's for a future without road trauma.

David Michael
Minister for Road Safety

Using the right technology



targeting the right offences



at the right locations



*to reduce road trauma in
Western Australia*

» Purpose

The purpose of this Safety Camera Strategy is to save lives.

This strategy sets the direction for detecting, deterring and enforcing driving offences for the next decade. Our aim is to lift our approach, adopt contemporary thinking, and make certain we have the flexibility to ensure we are:

- Using the right technology
- Targeting the right offences
- At the right locations

This strategy sets out the underlying principles we will adopt to achieve this.

An important feature of this Safety Camera Strategy is flexibility. The world will keep on changing, which is why this Safety Camera Strategy is designed to provide a principles-based framework for automating, communicating and exploring different approaches to achieve the best road safety outcomes and help save as many lives as possible over the next decade.

Over the ten years since the last camera investment strategy, technology has advanced, new risky driving behaviours have emerged, and societal attitudes have changed. When talking with stakeholders, key themes were present to ensure the strategy is meaningful and connected to the community:

- Safety, not 'speed' cameras
- Deterrence before detection
- Cameras are a proven deterrent
- Enabling more regional enforcement
- Raising awareness and increasing education

Safety cameras are a powerful deterrent and we know that infringements will need to be issued to drive behaviour change. 100% of safety camera detected traffic infringements are paid into the Road Trauma Trust Account, and are used to continue to improve road safety and help victims and families of road trauma. This includes road improvements at blackspots, road trauma counselling, and school road safety education programs.

This Safety Camera Strategy delivers on the commitment in the Government's *Driving Change: Road Safety Strategy Action Plan*.



164

Average number
of people killed
on WA roads
every year



\$2.4b

Cost of road
trauma to the
community
each year



32%

Fatal crashes
with speed as
a contributing
factor

Incidents detected during
a six month trial



66,000



11,400

» Road trauma in Western Australia

Over the past five years on average 164 people were killed on WA roads every year, and over a thousand were seriously injured. The estimated cost to the community from fatalities and serious injuries is \$2.4 billion per year.

Road trauma is caused by a range of reasons including unsafe driving behaviours. Travelling at unsafe speeds remains the primary factor, with 32% of crashes resulting in death involving speed as a contributing factor. However, in recent years there has been an alarming trend of motorists using hand-held mobile devices.

Distracted drivers are among the most dangerous on our roads. Using a mobile phone whilst driving can increase the risk of crashing by four times, potentially killing or seriously injuring vehicle occupants or other people when driving.

While data shows that inattention was a contributing factor in 18% of fatal crashes during the past five years, this offence is generally under-reported due to the difficulty of obtaining evidence at crash scenes.

Driving while texting or holding a hand-held device is one of riskiest behaviours on our roads, and it is likely a much bigger problem than the data suggests. To put things in perspective, our trial of new camera technology in WA captured over 66,000 motorists driving while using a mobile phone, over a six month period.

Unrestrained drivers are also a growing problem in WA. The same six-month camera trial detected almost 12,000 drivers and front seat passengers not wearing seatbelts.

While the use of seatbelts does not reduce the risk of a traffic incident, it does significantly reduce the likelihood of serious injury in crashes, with unrestrained drivers and passengers eight times more likely to be killed in a crash.

Until now, we have had to rely on police intervention and manual detection to identify and enforce hand-held device use and drivers/passengers not wearing seatbelts. However, as shown by the trial, automated enforcement options are available and reliable.

We have a responsibility to pursue these options further.

» Key themes

- » Safety, not 'speed' cameras
- » Deterrence before detection
- » Cameras are a proven deterrent
- » Enabling more regional enforcement
- » Raising awareness and increasing education



» Strategic principles

The principles and actions in this strategy are designed to reinforce today's effective road safety activities, incorporate world class methodology, retire elements no longer fit for purpose and complement them with new technology, and new practices.

Strategic principles guide and underpin our enforcement approach via two streams:

1. Design – principles that guide the development of the safety camera program
2. Delivery – how we will implement the safety camera program



» Design principles

1

Target unsafe
road
behaviours

» While ‘catching people doing the wrong thing’ is one form of deterrent, we will use safety cameras to prevent unsafe road behaviours before they occur.

» As a principle we will explain the reasons why these behaviours are being targeted, provide evidence that these behaviours pose a risk to road safety, and make clear to motorists that the likelihood of being detected is high.

To help complement police activities, we will prioritise automated enforcement on unsafe driving behaviours that are difficult for police to enforce. Existing and emerging unsafe behaviours will be targeted if they:

- contribute to road trauma;
- are illegal; and
- technology can be used to change the driver behaviour.

A common public misconception is that safety cameras are simply there to catch people out and to raise revenue. It is therefore important this strategy is based on the principle that cameras are being used to deter dangerous behaviours. This message will be built into all communications and activities.

» Strategic actions

- Design technology solutions, site selection criteria, and communication activities to highlight and target known unsafe road behaviours
- Prioritise behaviours that are difficult for police to enforce
- Clearly communicate the unsafe behaviours that are being focused on (using hand-held mobile devices, not wearing seatbelts, contravening a closed lane sign and driving an unlicensed vehicle)
- Explain the reasons why these behaviours are being targeted, provide evidence, and make clear that the likelihood of being detected is high
- Continue to review focus areas to ensure the State is best placed to achieve our *Driving Change* road trauma reduction targets, and communicate any changes



23

Fatalities in 2023
not wearing a
seatbelt

2

Evidence based program

» The scope and scale of the safety camera program will be informed by best practice. Our investments and strategies should be based on solutions proven to be effective, but tailored to WA.

» Cameras are a proven deterrent. While the safety camera program will be founded on an ‘anywhere, anytime’ general deterrence, it will incorporate site-based enforcement at high risk locations, including intersections. Site-based enforcement will be informed by historical and real-time data, with relevant data being made publicly available where possible.

Maximum variability and unpredictability of locations will be enabled through ensuring there are sufficient camera numbers and operational hours. Camera numbers and hours will be data-driven, and location deployments will be randomised from a robust database. We will work with leading road safety institutions and other jurisdictions to inform our approaches.

What is procured, where it is placed, and the driving behaviours targeted will always be guided by the most up-to-date data. This will ensure we target ‘what’s right’ not ‘what’s easy’. This will allow the program to evolve and improve as new evidence is fed into the design of the program.

We will aim for 98% of population coverage, as this reflects the degree of remoteness and relative access to services. This will ensure there is sufficient flexibility in our approach to allow regional WA to be adequately covered.

There is no blanket approach that would work for all road users in all regions. Driving behaviours, societal attitudes and public awareness can vary significantly across our vast State. It is therefore vital our safety camera program is based on data and robust evidence.

Moving to a more proactive, evidence-based strategy will not only improve the effectiveness of our programs, it will also help achieve public buy-in and credibility of this Safety Camera Strategy. This in turn will help drive behavioural change and increase the likelihood of success.

» Strategic actions

- Use a combination of fixed and mobile safety cameras, located based on where the data tells us they will have most impact (complementing manual enforcement)
- Promote deployment location unpredictability through ensuring there are sufficient camera volumes and operational hours
- While we will aim for 98% of population coverage, we will ensure sufficient flexibility to allow regional WA to be adequately covered
- Develop specific programs for regional towns, based on evidence of driving behaviours in that region and effective deterrents to suit each demographic



Target population
coverage

98%

A photograph of a savanna landscape with a purple text overlay. The landscape features a dry, yellowish-brown field in the foreground, scattered with small, green, rounded trees. In the background, a dense forest of similar trees covers a rising hillside under a pale, overcast sky. A dark, curved shape, possibly a car's interior or a camera lens, is visible in the upper right corner. A semi-transparent purple rectangle with rounded corners is positioned in the lower-left to center area, containing white text.

The location of
a safety camera
is the single
biggest factor in
its effectiveness

3

Transparent processes for site selection

» **Site selection will be more proactive, data-driven and understood by the public. Site selection criteria will deliver both location-specific and network-wide deterrence.**

» The criteria for selecting where mobile or fixed cameras are located needs to be reviewed. We will review the criteria and move to a more proactive, data-driven site selection process. Site selection criteria will cover both location-specific and network-wide deterrence.

The focus for the site selection criteria must be on safety, rather than enforcement. Proactive site selection is about deterring unsafe driving behaviours and preventing crashes before they occur, not simply catching people doing the wrong thing. In developing the revised site selection criteria, safety critical road infrastructure will be prioritised such as tunnels, smart freeways, areas of freeway 'all lane running' (where no emergency lane is present), as well as where vulnerable road users are present such as roadwork sites and school zones.

Most importantly, the criteria will be transparent. We will do this by setting up a governing group for site selection. Site selection criteria will be published, and the reason why these criteria are appropriate and what they are trying to achieve will be clearly communicated.

The location of a safety camera is the single biggest factor in its effectiveness. Best practice is to achieve a balance between specific deterrence (at high-risk locations) and general deterrence across the whole road network through anywhere, anytime enforcement. It is vital that the site selection criteria and the data behind it facilitates this approach.

Transparency of the site selection process is vital to change motorists' behaviours and attitudes towards safety cameras. The onus must be on explaining why camera locations have been selected and producing the data to show whether the locations have been effective in deterring unsafe driving behaviours.

» Strategic actions

- Review the site selection criteria and process
- Develop a centralised database of suitable, and target sites, which will be monitored and updated when new sites are added or retired
- Use enforcement data to inform future site selection and to target specific behaviours or locations of concern
- Publish and clearly communicate the site selection criteria
- Establish a governing group for site selection, including representatives from the Road Safety Commission, WA Police Force, Main Roads Western Australia, the Department of Transport, and other groups who represent motorists and road users
- Develop a simple process for motorists and members of the public to provide us with information on sites of concern

4

Focus on behaviour change

» We will establish a principle based, transparent infringement strategy with sufficient flexibility to deliver behaviour change in the most effective manner.

» The safety camera program will be managed and monitored to ensure it delivers the most effective incentive to drive safer behaviours. It is important to recognise that the vast majority of motorists do the right thing. A successful strategy is one where fewer infringements are being issued, because people are self-regulating.


This involves establishing a principle-based approach to purposefully address unsafe behaviours and/or societal groups differently. By understanding and incorporating differing driver risk appetites, change inertia and enforcement impacts, the greater the chance of achieving driver behaviour change. This will require us being transparent in our strategies and giving motorists fair warning when new offences are being enforced, or particular offences are being targeted.

The social impact of safety cameras and the associated penalty regime should not be underestimated. The consequences of individuals amassing large fines or losing their licence can be significant, and while offences should not go unpunished, there needs to be a balance between punitive measures and opportunities to help people learn from mistakes and correct driving behaviours. Different people have a different ability to pay and willingness to change, and it is important this strategy takes this into account.

The concepts of fairness and trust resonate with Western Australians. Making clear that the safety camera program is being delivered on an equitable basis will help achieve buy-in with motorists and increase the likelihood of behavioural change.

» Strategic actions

- Review the penalty model to ensure it is providing the right signals, and provide opportunities for part payments
- Consider the balance between metropolitan and regional enforcement
- Develop bespoke programs and communications when introducing safety cameras into regions that have had less exposure historically to the automated enforcement regime
- Include images of the offence with all infringement notices
- Use warning letters as a correspondence option when introducing new automated camera offences prior to enforcement
- Subject all technology to regular maintenance and recalibration to ensure accuracy
- Operate under a self-funding model, wholly paid for via the Road Trauma Trust Account



It is important
to recognise
that the vast
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motorists do the
right thing



Delivery Principles





Behaviour
change is
essential to
improving
road safety

5

Community education

» We will drive behavioural change through a structured program of community engagement, public education and information sharing.

» Engagement and education will be particularly important in those areas where safety cameras are not commonplace like regional WA. This includes raising awareness of past performance, and providing prompt feedback to drivers.

Behavioural change is essential to improving road safety. Behavioural change is best achieved through a mix of approaches – and enforcement is only one of these. Education and training are proven, proactive methods of improving road safety outcomes. The success of this Safety Camera Strategy is dependent on our ability to communicate with drivers and explain the why, what, when and how.

» Strategic actions

- Examine ways to reward positive behaviours and provide incentives for people to do the right thing
- Conduct extensive community education when new offences are added to our automated enforcement capabilities
- Share evidence and data with the community explaining the reasons why offences are being targeted
- Use data from safety cameras to better design and target driver education campaigns
- Be transparent on the site selection process, program evaluation, and how the money collected from infringements is used

6

Technology independence

» We will use the most appropriate technology available, both in terms of the camera equipment and the back-end systems used to capture and analyse data.

» We will complement existing technology with new technology, allowing for growth and flexibility of the camera fleet. For example, while we will retain our existing fleet of cameras, we will have the ability to add additional fit for purpose cameras targeting a range of unsafe behaviours, selected through rigorous procurement processes, from various vendors, so we are not constrained to one solution system.

Technology is developing at a phenomenal pace. Five years ago, offences such as unsafe mobile phone use could not be automatically detected, yet today it is commonplace. It is vital we remain able to integrate new technology into our portfolio of tools, and can adapt our safety camera investment and operations.

The back-end systems we use must be flexible enough to support the volumes and different types of data we will collect, and allow us to integrate and share data with other agencies. Our aim is to be able to adopt incremental improvements in technology over the coming decades, without the need to completely revisit our intelligent transport systems (ITS) and technology program.

» Strategic actions

- Complement existing technology with new technology, deploying a mix of camera types to deter a range of unsafe driving behaviours
- Seek to retire outdated technology where prudent to do so, but also broaden the suite of technology available, and remove dependence on one type of technology
- Adopt scalable back-end and operational equipment to allow future integration with other technology and cameras that target new offences



It is vital we
remain able to
integrate new
technology into
our portfolio of
tools

A photograph of a road scene with a purple semi-transparent overlay containing white text. The background shows a road with a yellow 'X' road sign on the left, a white truck in the distance, and a hill with sparse vegetation under a blue sky with clouds.

Promote
advancements
in road safety
enforcement
such that we
can improve
our road trauma
outcomes
as quickly as
possible

7

Industry innovation

» We will work with technology providers and other road safety partners to encourage innovation and the development of new solutions.

» This strategy will establish a specific research and development incentive scheme, funded from the Road Trauma Trust Account, to promote advancements in road safety enforcement so that we can improve our road trauma outcomes as quickly as possible.

In recent years WA's road trauma rate relative to other states and territories has failed to see the same improvements. Over the last ten years our performance has stalled, with a worrying increase in the road fatality rate over the past three years. A contributing factor is that technology uptake and enforcement hours have not kept pace with changes in society. A goal of this Safety Camera Strategy is to uplift our automated enforcement capabilities to contemporary, sustainable levels. Once we get ahead of the curve, we want to stay there. Attracting innovation, open inter-operable systems, and the pursuit of incremental improvements in our technologies are important parts of this strategy

» Strategic actions

- Encourage existing and emerging technologies to be trialled on WA roads
- Identify new and emerging unsafe road behaviours where compliance monitoring and enforcement could be automated
- Work with industry to understand what solutions are possible, or how existing technology could be better applied
- Establish a specific research and development allowance / incentive scheme, funded from the Road Trauma Trust Account

8

Continuous improvement and evaluation

» We will monitor and report on the ongoing effectiveness of the strategy and be flexible enough to make necessary improvements.

» A comprehensive evaluation framework will be developed to monitor and review the effectiveness of this strategy.

Annual camera program operational reporting to the program governance committee will be complemented with a review on the effectiveness of the Safety Camera Strategy once there is sufficient data (in year three), and then every three to five years thereafter.

Ongoing evaluation will consider whether the offences being targeted are the right ones, and whether the technology/assets are working as planned. We will be flexible enough to make incremental improvements as we go.

Driving behaviours and automated compliance and enforcement technology is constantly evolving. As motorists become more compliant with one law, other offences will no doubt emerge as an issue. Similarly, technology providers are constantly developing ways to automate enforcement of offences (such as tailgating, fatigue and drug-driving). It is therefore good practice to continually monitor program performance and industry/technology developments, and capture (and share) that data. Constant monitoring and regular reporting will help keep the Safety Camera Strategy proactive and ultimately more effective.

» Strategic actions

- Conduct and make public annual, high-level and data driven performance reporting
- Review the effectiveness of this strategy at fixed intervals, sharing information on:
 - successes;
 - where the program has not delivered the expected outcomes;
 - recommendations to enhance the program to support any associated investment.
- Maintain technological and process flexibility in order to make incremental improvements as we go

HEAD

INCIDENT AHEAD

Constant
monitoring
and regular
reporting will
help keep the
Safety Camera
Strategy
proactive and
ultimately more
effective

