



Government of **Western Australia**  
Department of **Water and Environmental Regulation**

# Smoky Vehicle Reporting Program

2016–2017 Annual Report

Department of Water and Environmental Regulation  
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# 1 The Smoky Vehicle Reporting Program

This report summarises the data and observations collected by the Smoky Vehicle Reporting Program between July 2016 and June 2017.

It is published to promote transparency in the program and provide feedback to people that submitted report(s) to the program during the year.

## 1.1 Program overview

The Smoky Vehicle Reporting Program is a joint initiative of the Department of Water and Environmental Regulation (DWER) and Department of Transport (DoT). It aims to:

- identify vehicles that are at risk of breaching vehicle emission legislation
- engage with vehicle owners to undertake any necessary vehicle maintenance.

The program is a key initiative of the *National Environment Protection (Diesel Vehicle Emissions) Measure 2001* (Cth) and the Perth Air Quality Management Plan.

Regulation 354 of the Road Traffic (Vehicles) Regulations 2014 (WA) defines a smoky vehicle:

### 354. Visible emissions of certain motor vehicles

- (1) This regulation applies to a motor vehicle that is propelled by an internal combustion engine and was built after 1930.
- (2) A motor vehicle mentioned in subregulation (1) must not emit visible emissions for a continuous period of at least 10 seconds.
- (3) This regulation does not apply to emissions that are visible only because of heat or the condensation of water vapour.

The program is a community engagement program to address public concerns about vehicle emissions and to encourage vehicle owners to take action, such as vehicle maintenance. It complements the regulatory effort of WA Police and authorised officers in identifying excessively polluting vehicles and issuing compliance notices.

## 1.2 How the program works

Members of the public who identify vehicles that smoke continuously for 10 seconds or more, can submit reports to DWER. DWER and DoT then verify the details in those reports and notify the owners of the vehicles, who are given an opportunity to respond. Those responses are collected and statistical data on reported vehicles are compiled.

No advertising or external promotion of the program is undertaken.

### Privacy

DWER does not have access to vehicle owner information and DoT does not have access to reporter information. This separation of data protects the privacy of reporters and vehicle owners, and the integrity of the program.

## Making a report

DWER maintains an online reporting portal<sup>1</sup> through which anyone can report a smoky vehicle's details. The data reported, which allow vehicle owners to be identified, include:

- the vehicle body type, licence number, make and model, and colour
- the location, date and time of sighting
- the reporter's name and contact details.

Photographic evidence can also be provided. Reporters are sent a notification email to confirm their submission. If a report is incomplete or unclear, they may be contacted for further information.

## Report verification

To mitigate against malicious and vexatious reporting, all reports are verified:

- Reports are checked for basic errors, such as mistyping of the vehicle licence number. Obvious mistakes are either queried or rejected.
- If the notification email sent to the reporter is rejected, a bounce-back email will be received and the report will be discarded.
- After the information identifying reporters is removed, batches of reports are sent to DoT every two months. DoT extracts vehicle owner, make, model and colour data from its database and sends DWER the vehicle make, model and colour data for cross-checking against reports. Those with obvious mismatches are rejected.

## Vehicle owner notification

After verification, reports are sent to a third party, which prints notification letters on behalf of DWER and DoT using the vehicle details from the reports. The letters are sent to vehicle owners, along with a reply-paid card to allow them to respond to the report.

Vehicle owners complete the reply-paid card with their licence number and fuel type, and indicate the action they have taken in response to the report which can include:

- vehicle repaired
- vehicle does not smoke
- vehicle smokes but I cannot afford to repair it
- disposed of vehicle
- vehicle details incorrect
- other – please give details

The vehicles owners' responses received are recorded against each report. Response data are analysed annually for observations and trends.

Vehicle owners can contact DWER to discuss the letter and the program.

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<sup>1</sup> [www.der.wa.gov.au/your-environment/reporting-pollution/report-smoky-vehicles](http://www.der.wa.gov.au/your-environment/reporting-pollution/report-smoky-vehicles)

## 2 Program performance

### 2.1 Reporting data

Figure 1 shows the recent reporting history for the Smoky Vehicle Reporting Program. In 2016–2017, the program:

- received 480 reports
- verified 424 reports and sent letters to identified vehicle owners
- received 303 responses from identified owners.

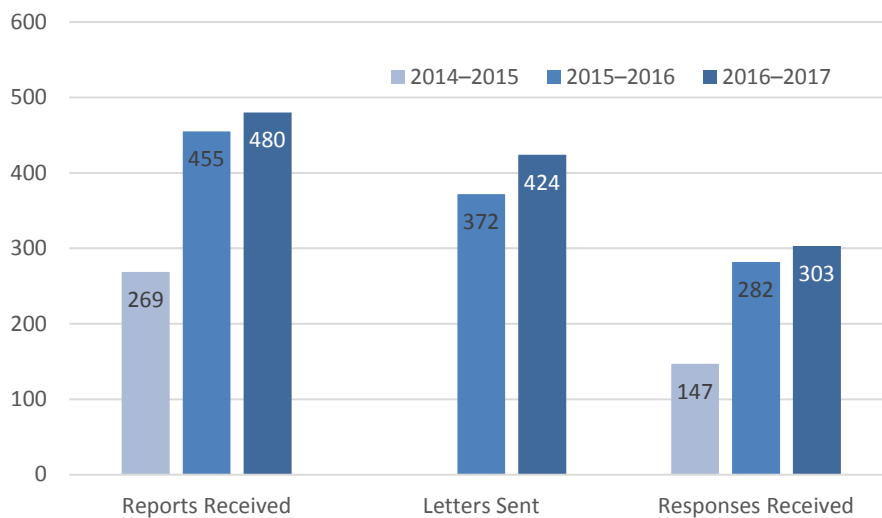


Figure 1: Annual reporting and response data<sup>2</sup>

The number of reports received and letters sent continued to rise in 2016–2017. The proportion of valid reports in 2016–2017 was 88.3 per cent, which was higher than 2015–2016’s rate of 81.8 per cent. The response rate for letters sent in 2016–2017 was 71.5 per cent, which was lower than 2015–2016’s rate of 75.8 per cent.

### 2.2 Response data

Responses received in recent years are summarised in Figure 2.

Nearly half of the responses received indicated the vehicle owner had repaired their vehicle after being notified.

Just over a third of responses advised that the owner considered the vehicle in question did not smoke, indicating different interpretations of what constitutes a smoky vehicle between reporters and vehicle owners.

Three out of four vehicles reported are diesel engines. Diesel engines can produce a short puff of smoke when accelerating until air intake is sufficient to more completely

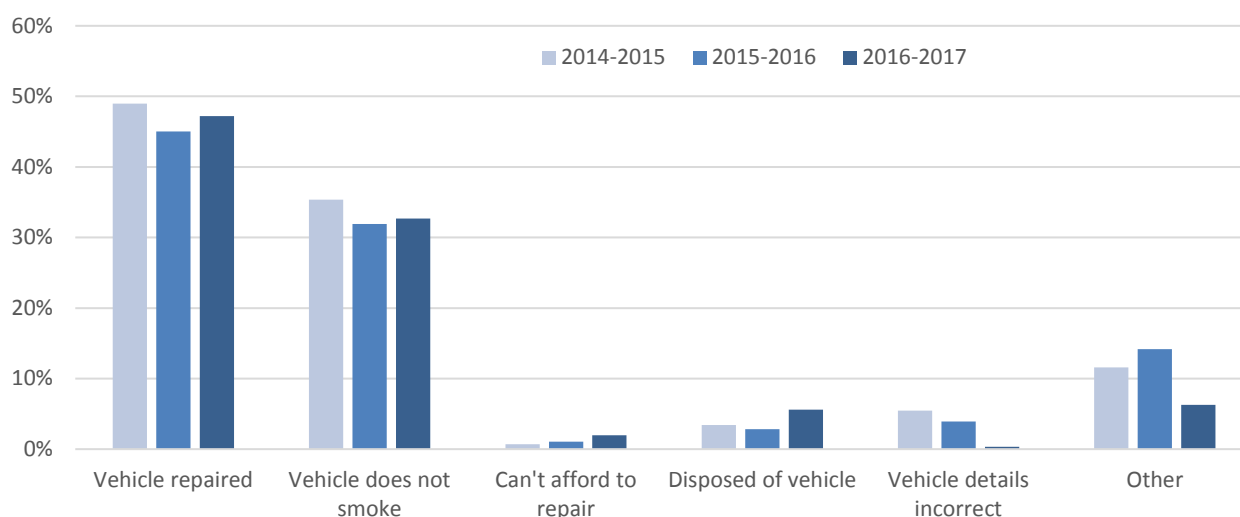
<sup>2</sup> Letter sent data was not tracked prior to 2015–2016.

combust the volume of diesel being injected into the cylinders. This can be more noticeable when the vehicle is under heavy load.

Because the program uses the '10 second rule' as defined by the Road Traffic (Vehicles) Regulations 2014, these smoke puffs do not necessarily make the vehicle 'smoky'. A vehicle must not emit visible emissions for a continuous period of more than 10 seconds.

Driver behaviour can also strongly influence smoke emissions. Vehicles that are accelerated heavily are more likely to smoke. When driven smoothly with gentle acceleration, steady speed and the correct gear choice, emissions are significantly reduced and vehicles are less likely to smoke.

A notable change for 2016–2017 was the drop in the 'vehicle details incorrect' response. The verification process that compares reported vehicle make, model and colour against the DoT database was added February 2016, and has effectively eliminated this issue.



*Figure 2: Distribution of responses received*

## 2.3 Reporting frequency

The monthly reporting rate for the past few years is presented in Figure 3.

Most reports are received between October and March, with a small lull in January. This pattern appears to be consistent across the past three years. Additional information is required to fully understand what may be driving this trend. Considerations include:

- weather influencing visibility of exhaust
- seasonal variance in driver activity or behaviours (for example, air conditioner use)
- seasonal fuel quality variation.

## 2.4 Repeat vehicle reports

There were 16 vehicles reported more than once in 2016–2017, 12 of which were reported twice within 30 days. The owners of all but three of those vehicles advised they had repaired their vehicle after receiving the reports.

No vehicle was reported more than twice.

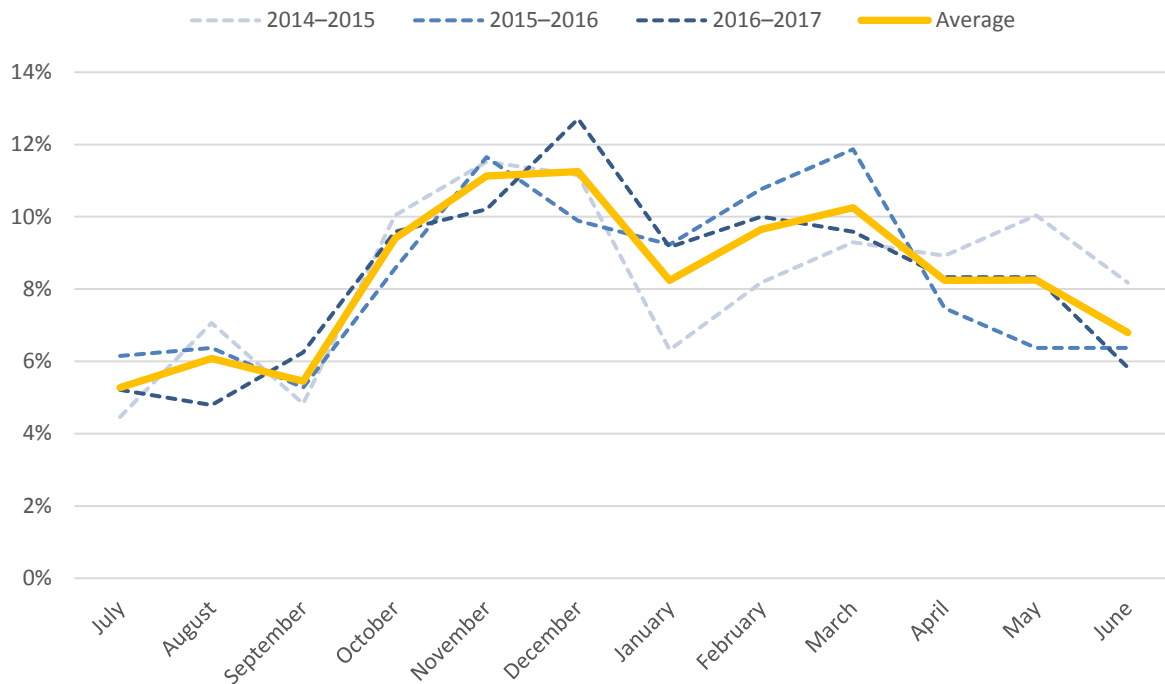


Figure 3: Reports received per month

## 2.5 Further information

To obtain further information about the Smoky Vehicle Reporting Program and the data collected, contact the Department of Water and Environmental Regulation at [smokyvehicles@dwer.wa.gov.au](mailto:smokyvehicles@dwer.wa.gov.au).