

# Air Quality and Vehicle Idling

<b>Report number:</b>	<b>OAS/WS/22/016</b>	
<b>Report to and date(s):</b>	<b>Overview and Scrutiny Committee</b>	10 November 2022
	<b>Cabinet</b>	6 December 2022
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**Decisions Plan:** This item is included in the Cabinet Decisions Plan.

**Wards impacted:** All Wards

**Recommendation:** It is recommended that the following options are endorsed by the Overview and Scrutiny Committee:

1. **Option 2: Civil enforcement officers to continue to provide informal advice and guidance to drivers as part of their day-to-day activities.**
2. **Option 3: Continue to undertake general air quality improvement work, focusing on vehicle idling where proportionate.**

## 1. Context to this report

- 1.1 This report was requested by Councillors Hind and Wakelam following updates on air quality and anti-idling campaigns under report number [OAS/WS/21/021](#), taken to this committee on the 11 November 2021.
- 1.2 Prior to this report being prepared, a scope was agreed with Councillors Hind and Wakelam, which is presented as **Appendix A**. The below follows the scope as agreed.

## 2. West Suffolk air quality

- 2.1 Air quality has direct implications for human health. Research shows that poor air quality can reduce the quality of life by causing health problems, especially in those who are more vulnerable such as children, the elderly and those with pre-existing health conditions. There is considerable research showing a link between exposure to air pollution and effects on health.
- 2.2 Improving the air quality will help to improve the long-term health of our local communities, makes our towns more attractive places to visit and therefore improves the local economy.
- 2.3 The Council has statutory duties to monitor and report on local air quality and declare special air quality management areas (AQMAs) where pollution exceeds nationally set objectives. Tackling vehicle idling does not form part of these statutory duties, however, it is complementary to the statutory duties and is one tool among many which may be used to help improve the local air quality.
- 2.4 Air pollution in West Suffolk is below (compliant with) the nationally set air quality objectives at all monitored locations. Even within our AQMAs levels of pollution are now below the statutory objectives. However, evidence is being published that confirms that health impacts are possible below these objectives as reflected by revised World Health Organisation (WHO) targets. Therefore, work to reduce air pollution outside of the statutory framework will have a positive impact.
- 2.5 Long term monitoring sites in West Suffolk have shown a significant decrease in pollution levels over the past decade. For example, our monitoring point at the junction of Cullum Road and Westgate recorded an annual mean value of 37.0 µg/m<sup>3</sup> of nitrogen dioxide in 2007 (compared to a national objective of 40 µg/m<sup>3</sup>) but had reduced to 25.9 µg/m<sup>3</sup> by 2019. Newmarket High Street taxi rank has reduced from 43.4 µg/m<sup>3</sup> in 2008 to 33.1 µg/m<sup>3</sup> in 2019. It is worth noting that 2020 and 2021 recorded lower pollution levels again but had been impacted by COVID-19 lockdowns so are not necessarily considered comparable. The first lockdown in spring

2020 caused an approximately 45% decrease in nitrogen dioxide when compared to the same period the year before.

- 2.6 In West Suffolk levels of nitrogen dioxide pollution tend to be worst along main roads with high volumes of road traffic. The highest levels of pollution were recorded on the A143 in Great Barton (35.2  $\mu\text{g}/\text{m}^3$  in 2021), followed by the A134 on Sicklesmere Road in Bury St Edmunds (31.8  $\mu\text{g}/\text{m}^3$  in 2021). No other monitoring locations in West Suffolk recorded concentrations above 30  $\mu\text{g}/\text{m}^3$  in 2021.
- 2.7 Although by no means a direct relationship, general or background air quality tends to be linked to the size of a town or city, with air quality being worse in larger UK cities such as London, Birmingham and Manchester. There is, however, always the potential for 'hotspots' of pollution where this is caused by specific local circumstances. The hotspots found in Bury St Edmunds are comparable to other similarly sized towns. The below gives pre-pandemic (2019) comparison of the highest annual mean of nitrogen dioxide for a number of similarly sized towns:
- Bury St Edmunds - 37.2  $\mu\text{g}/\text{m}^3$
  - Boston, Lincolnshire – 49.2  $\mu\text{g}/\text{m}^3$
  - Hatfield – 48.0  $\mu\text{g}/\text{m}^3$
  - Bridlington – 19.0  $\mu\text{g}/\text{m}^3$
  - Abingdon – 41.3  $\mu\text{g}/\text{m}^3$

### 3. Vehicle idling and air quality

- 3.1 The act of idling in a vehicle (that is leaving your vehicle engine running when you are parked) and the impact on air quality is not a simplistic relationship in that turning off your engine for short periods is not always beneficial. The air quality benefit from turning your engine off and restarting the car is dependent on numerous factors, and there is no absolute time that idling becomes worse for air quality than switching your engine off and on again. Most campaigns and other local authority websites suggest that it is best to switch off if you know you're going to be stationary for more than one minute, but other figures are quoted, such as the RAC who state two minutes. Many newer vehicles have technology to reduce idling such as stop-start systems or REST buttons which enables residual heat from the engine to be blown into the cabin to continue to heat the interior of the car warm.
- 3.2 TRL research from 2021 ([TRL-Executive-Summary](#)) using vehicles typically encountered in London indicates that idling for a 30 second period produces nearly twice as much nitrogen dioxide pollution as switching off then restarting the engine.
- 3.3 Other research undertaken by the US Department of Energy shows that restarting a warm engine emits 19 times more nitrogen oxides than 30 seconds of idling. Restarting a cold engine is even worse, emitting 760

times more nitrogen oxides than idling for half a minute. [Want to help cut air pollution? You might need to keep your engine on \(theconversation.com\)](#).

- 3.4 Gary Fuller, an air pollution expert at Imperial College London, said: “Many councils boast to me about their anti-idling work. This effort seems out of proportion to the knowledge base. Most evidence is more than a decade old, with little evidence on the emissions from modern vehicles with the latest exhaust technologies. I’m not saying that idling is OK – far from it. But I worry that it becomes a politically acceptable diversion that reduces the pressure to take action on the far greater air pollution from the vehicles that are moving.”  
<https://www.theguardian.com/environment/2022/mar/08/idling-drivers-fined-central-london-toxic-air-pollution>
- 3.5 Measuring air quality benefits with relation to any reduction in vehicle idling is difficult given both the long term and short-term variations in air quality levels and the number of various other issues that impact pollutant (especially nitrogen dioxide) levels. Day to day, concentrations of nitrogen dioxide can be impacted by the amount of sunlight, temperature, wind speed, wind direction, atmospheric pressure, rainfall and traffic volumes. It should also be noted that a reduction in nitrogen dioxide (which is measured locally) may not be reflected in a reduction in other contaminants such as particulates.
- 3.6 “Research for Idling Action on campaign strategies and messaging” Final Report January 2022 Coolworld Consulting ([Idling Action research public final](#)) found the following:
- 78% of respondents usually or always switch off the engine when parked or pulled over
  - Between 77% and 85% of drivers switch off when a direct request is made as part of an anti-idling event.
  - The most common reasons for idling given by drivers were: *Dropping someone off or picking them up; Running the vehicle’s heating or cooling system; Just habit.*
  - The message rated as most effective by drivers from across all surveys was: *Switching off engines when parked is better for the health of those who work, live and go to school on this street.*
  - The message that idling is illegal and could result in a fine was considered less effective by drivers.
- 3.7 West Suffolk do receive a small number of complaints from members of the public relating to vehicle idling. These complaints have not all been formally recorded, but in the last two years have included:
- Complaints relating to idling by buses primarily at Bury St Edmunds bus station and on St Andrew’s Street South.
  - Complaints relating to idling outside schools (includes two village primary schools and three Bury St Edmunds schools).

- Complaints relating to idling in the town centre (both on street and in private car parks).
- One complaint from a member of the public relating to the behaviour of their neighbours.

## 4. Enforcement powers

- 4.1 Enforcement powers do exist with regards to vehicle idling, as laid out in the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002. These allow for personnel authorised by the local authority to issue a £20 Fixed Penalty Notice (FPN) where drivers refuse to turn off their engines when requested to do so by an authorised officer. There is no legal requirement to erect signage, declare a special 'zone' or gain permission from any other body (such as the secretary of state) before issuing FPNs for idling, but some publicity of the intention to commence enforcement is expected. These regulations only apply on the public highway.
- 4.2 The regulations require the authorised officer to speak to the offending driver and warn them of the potential FPN prior to it being issued. The FPN can only be issued if the driver has received the warning from the authorised officer and still refuses to turn their engine off.
- 4.3 It is possible for drivers that are warned by an authorised officer to drive off following the warning to avoid any fine. If the driver does comply, there is nothing to prevent the offending driver from switching their engine back on once the authorised officer has left.
- 4.4 There are exemptions to this legislation, examples of which could be considered to include:
1. Undertaking diagnostics on a vehicle for maintenance or repairs.
  2. Refrigerated HGV vehicles making deliveries as their engines need to be kept running for their fridge/freezer compartments.
  3. Demisting/de-icing of a vehicle's front windscreen and windows before setting off in the winter months.
  4. Cooling the inside of a vehicle using air con before setting off in the summer months.
- 4.5 The FPN can be challenged. The evidence needed to support the Council to defend any FPN challenge would be difficult to produce. This could include evidence that the vehicle was idling when the FPN was issued and evidence that the request to the driver to switch off their engine was correctly issued. It may also be necessary to provide evidence that one of the exemptions did not apply.

## 5. Summary of anti-idling best practice

- 5.1 A review of best practice local authorities has taken place. The Air Quality Hub, a local authority air quality practitioner's website, gives a number of examples of best practice local authorities with relation to their work on anti-idling. The English local authorities are, York City Council, London Borough of Richmond upon Thames, and Sheffield City Council. The Defra Clean Air Strategy 2019 gives other best practice examples, including Surrey Air Alliance and the Sussex Air Quality Partnership.
- 5.2 York City Council have confirmed by email (September 2022) that they have not issued any FPNs for idling offences, with their work mostly concentrating around educational events at schools and other known hotspots.
- 5.3 By email (September 2022) officers from Richmond confirmed that over 25,000 people had been spoken to since traffic wardens started enforcing vehicle idling legislation in March 2019. During this time only a single FPN was issued. Richmond confirmed that they had to recruit additional traffic wardens and undertake additional training. Again, the focus of their activity is around education at schools and other hotspots, which remain ongoing.
- 5.4 Sheffield City Council have significant resources on their website relating to air pollution with materials aimed specifically at 7- to 11-year-olds. However, there is no reference to fines for vehicle idling.
- 5.5 The Surrey Air Alliance ran Cleaner Air for Schools Programme in Surrey, administered by a consultants Aether. The programme aims to teach children about local air quality issues and what they can do to help reduce air pollution at their school through a series of workshops and learning resources.
- 5.6 The Sussex Air Quality Partnership website ([www.sussex-air.net](http://www.sussex-air.net)) does not state that fines will be given out for idling and none of the individual local authority annual status reports give any details of fines being given out for idling. Again, work appears to have focused around schools and businesses, with a project ran by Sustrans during 2018 and 2019.
- 5.7 Where formal enforcement is used, this is used infrequently and as a last resort, with education being cited as a more effective method of behavioural change in almost all of the examples of best practice.

## 6. West Suffolk enforcement implications and costs

6.1 West Suffolk Council gained Civil Parking Enforcement Powers in April 2020 as an issuing authority acting on behalf of Suffolk County Council under a prescribed Service Level Agreement (SLA). Our priorities are enforcing On Street parking restrictions across the district. We act as an enforcement power; we do not operate under criminal enforcement which would be required to issue FPN.

Where local authorities are structured differently to West Suffolk Council, the issuing of FPNs is normally carried out by the environmental team. For the purpose of this report, we have looked at how West Suffolk Parking Services would take on these powers which is listed in the costs table below.

This type of enforcement is by issuing a paper FPN, which is currently £20. This practice would normally include dog fouling, littering and cycling on a pavement.

### 6.2 Costs.

<b>Additional CEO Training</b>	24 CEOs	£36,000
<b>Additional Operational resources</b>	1 CEO	£28,000
<b>Back Office Administration</b>	1 admin member 1 or 2 days a month	£300
<b>IT Software</b>	Chipside Upgrade-FPNs	£1,000
<b>Legal Costs</b>	Solicitor/Lawyer Representation for prosecution	£500 per day
<b>WSC Website</b>	Additional portal for FPN payments	£200-300
<b>Envelopes/Paper</b>	FPN bags, FPN issuing paper, letter templates	£1,500 plus ongoing costs
<b>Total</b>		<b>£67,600</b>

The above costs would equate to 3,380 Fixed Penalty Notices to be issued. We are not aware of any other regional local authority that currently undertakes vehicle idling enforcement due to the difficulties in obtaining evidence.

- 6.3 Under **option 2** in this report, the West Suffolk Council Civil Parking Enforcement team will continue to engage and encourage motorists informally to switch their engines off if vehicle idling is observed during their daily patrols.
- 6.4 It has been suggested that the West Suffolk Council Civil Parking Enforcement team could collect data for these informal interactions for reporting to elected Members and other interested parties. However, such an approach would effectively make the activity 'formal' where there is no official basis for it to be so, either through the SLA which underpins the service or through any legitimate enforcement powers which would support officers on the ground. The only proper basis to formalise these interactions would be those set-out in **option 1** at paragraph 9.2.

## 7. Existing air quality actions

- 7.1 Significant work to improve air quality has either taken place or is ongoing. A summary of this work is provided below:
- 7.2 Expanding our public EV charging network (current capacity: 75 vehicles charging at one time) with plans to continue expanding this network. This will enable more zero tailpipe emission vehicles in West Suffolk.
- 7.3 Switching our own small vehicle fleet to electric to ensure we are leading by example with zero tailpipe emission vehicles
- 7.4 Piloting a Clean Air Business scheme ([Air quality \(westsuffolk.gov.uk\)](https://www.westsuffolk.gov.uk)) to help raise the profile of air quality among local businesses and to promote ways in which both businesses and their employees can reduce the amount of air pollution they produce. 50 businesses attended air quality seminars to launch the Clean Air Business scheme and raise awareness of air quality issues.
- 7.5 As part of the Clean Air Business scheme West Suffolk Council produced an anti-idling driver training video for businesses, with 61 views in the first month (<https://www.youtube.com/watch?v=QP14Exibjf0>)
- 7.6 Civil Enforcement Officers trialled approaching idling motorists. In the first six weeks, only 14 idling motorists in the West Suffolk area were approached, 68% drove away whilst the remainder switched their engines off.
- 7.7 Enforcement officers continue educate drivers who are idling but numbers of interactions are very low.
- 7.8 We continue to support the Bury St Edmunds residents air quality group. Where specific issues are highlighted to us by the group we have acted

swiftly to ensure action is taken. For example, a particular, private, town centre, car park was highlighted to us as having an idling problem. We contacted the owner who was immediately willing to tackle the problem and erect signage.

- 7.9 Taxi drivers have an anti-idling policy which has been highlighted in taxi forum newsletters. Engagement was carried out with taxi drivers on the Newmarket taxi rank (as this had been highlighted to us as a particular issue) resulting in decreases in nitrogen dioxide concentrations at the adjacent monitoring point.
- 7.10 We continue to offer support to schools to tackle idling outside school gates. This work has been limited since Covid as schools have not wanted visitors, but our work has been picked up as best practice by the [Cleaner Air Sooner](#) scheme and we continue to promote this scheme and assist where we can, such as providing banners and literature to Moulton Primary school earlier this year.
- 7.11 We have been in regular contact with local bus operators over the past year to highlight the need for drivers to reduce idling at the bus stations and other key locations. In general bus operators have been very cooperative and willing to take action, including regular reminders to all drivers. Where specifics (date, time, location, bus number) are provided they can take targeted educational action.
- 7.12 We provided data and support to our partners at Suffolk County Council and the Suffolk and North-East Essex NHS partnership to produce an educational video for distribution within the local NHS trusts.  
<https://youtu.be/PaWijjEHLRE>
- 7.13 Distributed over 1,000 anti-idling leaflets to residents and communities to raise awareness. These were distributed at events such as the Green Fair, to organisations such as the Churchgate Area Association, and to members of the public who requested information in locations throughout West Suffolk. Leaflets and posters are also available to download free from our website.
- 7.14 We have liaised with a local school to offer time limited (approximately half an hour at school drop-off and school collection) parking permits in a specified car park to allow parents to park safely and reduce the need for congested parking, vehicle movements and idling close to the school.
- 7.15 We have been working on a clean burning campaign with other Suffolk local authorities.

## 8. Electric vehicles

- 8.1 Electric vehicles (EVs) have zero tailpipe emissions and do not have an engine to idle. It is important to consider the increase in EVs as this will have a direct impact on the number of idling events in the medium to long term and therefore impacts the value of any investment taken at this time.
- 8.2 Recent work commissioned by Suffolk County Council predicts that in 2025 EVs will account for seven per cent of the vehicles in West Suffolk and by 2030 this will have risen to 30 per cent. The above quoted figures do not include plug-in hybrid, hybrid or mild-hybrid vehicles, all of which have battery technology to reduce the need for, and likelihood of, engine idling. New pure petrol or diesel vehicles make up just 50% of new vehicle sales (SMMT figures January to August 2022). The sale of diesel vehicles, which are the most polluting when idling, have reduced by 47% year on year (SMMT figures January to August 2021 to January to August 2022).
- 8.3 Although we appreciate that the number of petrol or diesel vehicles will still be significant the number of idling events will steadily and consistently reduce with time as the number of pure petrol or diesel cars reduce. It should also be noted that the vehicles that will be removed from the national and local fleet are likely to be the older most polluting vehicles. The growth in EVs will also mean that background pollution levels will continue to reduce with time.

## 9. Options and recommendations

- 9.1 The various options are summarised below.
- 9.2 **Option 1: Adopt delegated powers for Civil Enforcement Officers to use Fixed Penalty Notices under the traffic regulations 2002.**

Based on the research and options appraisal, it is not recommended that this option is taken forward. Evidence from other, best practice, local authorities demonstrates that FPN would virtually never be issued. Where these are issued, there is a significant risk that they would not be paid. Given the high costs to appropriately train the CEOs and update the equipment this would not be a financially appropriate option. Any investment at this time would have diminishing returns as more zero tailpipe emission vehicles, such as EV, come on to the roads and reduce the number of vehicles that idle.

It is also worth noting that most people do not idle and of those that do, a large percentage reactive positively to an educational message. It is possible that the threat of a FPN increases the 'switch off' compliance, but this needs to be backed up by a positive educational message to ensure long term compliance, as the threat of a fine was considered less effect with drivers in the research undertaken by Coolworld Consulting.

As FPN can only be issued on the public highway, CEOs would not be able to issue FPN for much of their day whilst patrolling car parks. Should specific areas need targeting, this would either take officers away from their day-to-day duties or would require additional staffing.

This option would have high-cost implications, would produce little, if any, income and have only a marginal short-term impact on compliance.

**9.3 Option 2: Civil enforcement officers to continue to provide advice and guidance to drivers as part of their day-to-day activities.**

CEOs can, and do, provide advice and guidance to drivers as part of their day-to-day activities with little to no impact on the core activities. This advice and guidance can also be provided in locations where FPNs cannot be issued, such as our public car parks. Where these interactions were recorded, drivers either complied with the request to switch off or drove away. It is recommended that this continues as an existing effective approach, however, recording these interactions would not be compatible with the current equipment used by CEOs and it is therefore not proposed to actively record or report the number of interactions.

**9.4 Option 3: Continue to undertake general air quality improvement work, focusing on vehicle idling where proportionate.**

Based on the research of best practice around vehicle idling, targeted educational campaigns are repeatedly sighted. This includes the Suffolk campaign which has been highlighted as best practice. It is recommended that our clean air work with schools, businesses, bus operators, taxis and other groups continues.

9.5 It should be noted that, although idling is in no way acceptable and we continue to tackle this where appropriate, there are other practices that create greater proportions of general air pollution which also need focus. For example, the UK Clean Air Strategy 2019 states that 38% of primary particulate matter pollution comes from domestic wood and coal burning, whilst only 12% comes from transport. Of that 12% only a small proportion is from idling vehicles, with most being from moving vehicles. Therefore, clean burning campaigns are likely to have a significantly greater impact on particulate pollution than idling campaigns.

9.6 Removing vehicles from the road altogether by encouraging and/or enabling sustainable transport or encouraging a quicker transition to zero tailpipe emission vehicles would again have a more significant impact on overall air quality levels, as demonstrated by the significant drop in pollution during COVID-19 lockdowns.

9.7 This option would be a relatively low cost, business as usual approach. As campaigns are generally developed on a county wide basis costs of

developing campaign materials are shared and workload and responsibility shared, with additional expertise from the Suffolk County Council sustainable transport and junior road safety teams.

## **10. Risks associated with the proposals**

10.1 No identified risks associated with the recommendations

## **11. Implications arising from the proposals**

11.1 Financial – No financial recommendations, with both recommended options being business as usual approaches.

11.2 Legal compliance – No legal compliance implications from the proposed recommended options.

11.3 Personal data processing – No personal data processing required from recommended options.

11.4 Equalities – No equalities implications from recommended options.

11.5 Crime and disorder – No crime and disorder implications from recommended options.

11.6 Safeguarding - No safeguarding implications from recommended options.

11.7 Environment or sustainability – The recommended options will continue to support improvements to local air quality.

11.8 HR or staffing - No HR or staffing implications from recommended options.

11.9 Changes to existing policies – No proposed changes to existing policies.

11.10 External organisations (such as businesses, community groups)

## **12. Appendices referenced in this report**

12.1 Appendix A - Overview and scrutiny anti-idling scoping document

## **13. Background documents associated with this report**

13.1 None