



# 2021 & 2022 Air Quality Annual Status Report (ASR)

## Executive Summary

Date: September 2022

Information	South Gloucestershire Council Details
<b>Local Authority Officer</b>	Sally Radwell (Environmental Health) Simon Guy & Lee Lodder (Transport Policy) Fionna Vosper (Public Health)
<b>Department</b>	Department for Place
<b>Address</b>	South Gloucestershire Council Department for Place Environmental Protection PO Box 1954 Bristol BS37 0DD
<b>Telephone</b>	01454 868001
<b>E-mail</b>	<a href="mailto:environmental.protection@southglos.gov.uk">environmental.protection@southglos.gov.uk</a>
<b>Report Reference Number</b>	SGC_ASR_2021_2022
<b>Date</b>	September 2022

## Executive Summary: Air Quality in Our Area

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children, the elderly, and those with existing heart and lung conditions. There is also often a strong correlation with equalities issues because areas with poor air quality are also often less affluent areas<sup>1,2</sup>.

The mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages<sup>3</sup>, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017<sup>4</sup>.

Air pollution can arise from many sources, including transport, industry and commercial and domestic heating, in particular solid fuel burning. Pollutant levels are assessed against national air quality objectives (detailed in Appendix E) and where the objectives are not met, Air Quality Management Areas (AQMAs) must be declared and an Action Plan put in place to improve the air quality.

## Air Quality in South Gloucestershire

South Gloucestershire lies to the north and east of the city of Bristol with the River Severn forming the western boundary and the Cotswold escarpment to the eastern edge. The area is a diverse mix of urban and rural areas, including major residential, industrial and commercial developments. The major junction of the M4 and M5 motorways (the Almondsbury Interchange) is within South Gloucestershire.

The population estimate for South Gloucestershire from the 2021 Census is 290,400<sup>5</sup> which is a 10.5% increase since the 2011 census (262,800). The majority of people live in the urban areas on the north and east fringes of Bristol and in the towns of Yate and

---

<sup>1</sup> Public Health England. Air Quality: A Briefing for Directors of Public Health, 2017

<sup>2</sup> Defra. Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006

<sup>3</sup> Defra. Air quality appraisal: damage cost guidance, July 2021

<sup>4</sup> Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

<sup>5</sup> [Census 2021 | BETA - South Gloucestershire Council \(southglos.gov.uk\)](https://www.southglos.gov.uk/census-2021)

Thornbury, while the remainder live in the villages and more rural areas of South Gloucestershire. The total population is projected to increase to 354,300 in 2043<sup>6</sup>. With the population projected to continue rising, managing future development and providing vital transport infrastructure is a key challenge.

The main air pollutant of concern locally is nitrogen dioxide (NO<sub>2</sub>), which mostly arises from road traffic (34%, rising to 80% near roadsides)<sup>7</sup>. Particulate matter is also a pollutant of concern. Sources of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub> which are described by the particle size) include domestic wood and coal burning (38%), industrial combustion (16%) and road transport (12%)<sup>8</sup>.

### **Air Quality Management Areas**

There are two AQMAs currently declared in South Gloucestershire in relation to exceedances, or likely exceedances, of the annual mean objective for nitrogen dioxide (40 µg/m<sup>3</sup>):

- Staple Hill – in the centre around the Broad Street/ High Street/ Soundwell Road/ Victoria Street crossroads and the High Street/ Acacia Road/ Pendennis Road crossroads.
- Kingswood – Warmley – from the Bristol/ South Gloucestershire boundary in Kingswood along the A420 to the junction with Goldney Avenue in Warmley.

Full details of the current AQMAs are included in **Error! Reference source not found.** of this report and maps are available in Appendix D. Further information on the AQMAs is available on the Council website at [www.southglos.gov.uk/airquality](http://www.southglos.gov.uk/airquality) and on the Defra website at [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=238](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=238).

The former Cribbs Causeway AQMA adjacent to the M5 Junction 17 roundabout was formally revoked in July 2020 as nitrogen dioxide concentrations within the AQMA have consistently been below the annual mean objective since 2010. Further information is provided in Section 2.1 of the report.

---

<sup>6</sup> Source: ONS 2020 Sub-national population projections (2018-based) <https://www.southglos.gov.uk/council-and-democracy/census/population-and-demographics/>

<sup>7</sup> Defra Clean Air Strategy 2019 [Clean Air Strategy 2019 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

<sup>8</sup> Defra Clean Air Strategy 2019 [Clean Air Strategy 2019 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

## Trends in monitored concentrations

Until the Covid-19 pandemic in 2020, the air quality in South Gloucestershire had been gradually improving over the previous decade, with overall declining trends in nitrogen dioxide and particulate matter (PM<sub>10</sub>) concentrations. Pollutant levels had mostly been compliant with the national objectives, apart from in some locations where the air quality did not meet, or was close to, the annual mean objective for nitrogen dioxide (40 µg/m<sup>3</sup>), largely in the AQMAs.

The impact of the Covid-19 pandemic restrictions on people's movements and travel patterns in 2020 had an effect on monitored pollutant concentrations, which continued to a slightly lesser degree in 2021, in addition to other factors such as meteorological conditions and changing vehicle fleet composition which influence pollutant levels year to year under normal circumstances.

South Gloucestershire Council monitored NO<sub>2</sub> and PM<sub>10</sub> in 2020 and 2021 at its automatic site in Yate and from August 2021, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> and Ozone (O<sub>3</sub>) monitoring began at a new automatic site in Stoke Gifford on the A4174 Ring Road near Coldharbour Lane and the University of West England (UWE). There was also extensive monitoring of nitrogen dioxide at 96 non-automatic (passive) diffusion tube monitoring sites in 2020 and at 98 sites in 2021. The details of the monitoring sites are provided in Appendix A.

The key outcomes from the monitoring reported in this Annual Status Report are:

- In 2020, annual mean NO<sub>2</sub> concentrations decreased by an average of 22% across the diffusion tube monitoring sites in South Gloucestershire due to the impacts of the Covid-19 pandemic travel restrictions from March 2020.
- In 2021, annual mean NO<sub>2</sub> concentrations increased by an average of 5% from 2020 across the LAQM diffusion tube monitoring sites as the pandemic travel restrictions eased but were still on average 17% lower than 2019 annual mean concentrations.
- In the Kingswood – Warmley AQMA, annual mean NO<sub>2</sub> concentrations decreased by an average of 22% from 2019 to 2020, followed by an average 4% increase from 2020 to 2021 as the pandemic restrictions eased. There were no exceedances of the annual mean NO<sub>2</sub> objective or any “borderline” sites (within 10% of the annual mean objective i.e. greater than 36 µg/m<sup>3</sup>) in this AQMA.

- At the single previously exceeding site in 2019 (and 2018) in South Gloucestershire within the Kingswood – Warmley AQMA (Site 146 Kingswood - Hill Street), the annual mean NO<sub>2</sub> concentration decreased by 15% from 2019 (42.3 µg/m<sup>3</sup>) to 2020 (35.9 µg/m<sup>3</sup>). This decreased further at this site in 2021 to 34.1 µg/m<sup>3</sup> (a 19 % decrease from 2019). This demonstrates that the decreases and increases in concentrations were not uniform across the district as the situation changed during the pandemic.
- In the Staple Hill AQMA, the annual mean NO<sub>2</sub> concentrations decreased by an average of 23% from 2019 to 2020 due to the impacts of the pandemic restrictions. There was then an average 6% increase in annual mean concentrations from 2020 to 2021 as the restrictions eased. There were no exceedances of the annual mean NO<sub>2</sub> objective or any “borderline” sites in this AQMA.
- Aside from the significant decreases in concentrations in 2020 and slight increases at the majority of AQMA sites in 2021, prior to these Covid impacted years, there has been an overall gradual downward trend in nitrogen dioxide concentrations in the Kingswood – Warmley and Staple Hill AQMAs over the past decade.
- There were no exceedances of the NO<sub>2</sub> annual mean objective in 2020 or 2021 outside of the AQMAs where there is relevant exposure (i.e. public exposure for the averaging period of the objective, so in this case, a calendar year). In 2021, there was one marginally “borderline” site outside of the AQMAs at a new site in Patchway on the A38 Gloucester Road close to Hayes Way (site 188).
- At the Yate automatic monitoring site, the NO<sub>2</sub> concentrations were well below the annual mean and 1-hour objective in 2020 and 2021. In 2020, the annual mean was 14 µg/m<sup>3</sup> which is a 26% decrease from the 2019 annual mean of 19 µg/m<sup>3</sup>. This is on a par with the average 25% reductions in NO<sub>2</sub> concentrations seen across the national automatic urban and rural monitoring network (AURN). The annual mean concentration increased slightly in 2021 to 15 µg/m<sup>3</sup> when travel restrictions were less stringent. Overall, annual mean NO<sub>2</sub> concentrations at Yate have been slowly declining over the past decade when the monitored concentration was 27 µg/m<sup>3</sup> in 2011.
- The PM<sub>10</sub> concentrations measured in 2020 and 2021 at the Yate automatic site were well below the annual mean objective (40 µg/m<sup>3</sup>) and 24-hour mean objective (50 µg/m<sup>3</sup> not to be exceeded more than 35 times a year). In 2020, the annual mean was 11 µg/m<sup>3</sup>, and in 2021, 12 µg/m<sup>3</sup>, compared to 13 µg/m<sup>3</sup> in 2019. The lower annual means are likely to have resulted from the impacts of the Covid-19 pandemic

restrictions as concentrations rose again slightly in 2021 when travel restrictions were less stringent, although PM<sub>10</sub> concentrations were less affected than NO<sub>2</sub> levels by the pandemic restrictions. Overall, annual mean PM<sub>10</sub> concentrations at Yate have been slowly declining over the last decade from 18 µg/m<sup>3</sup> in 2011.

- At the new automatic monitoring site in Stoke Gifford on the A4174 Ring Road near Coldharbour Lane, the NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> and Ozone (O<sub>3</sub>) concentrations were below the relevant objectives or standards in 2021. The results were “annualised” (adjusted from short to long-term) as monitoring began on 24 August 2021.

The monitoring results and trends in the data are discussed fully in Section 3.2 of the report and trend graphs are available in Appendix A.

The monitoring data from the South Gloucestershire automatic sites is also available to view on the [Air Quality in the United Kingdom \(ukairquality.net\)](https://www.ukairquality.net) website.

### **How the Council works to manage local air quality**

South Gloucestershire Council is a unitary authority and Planning, Transport and Environmental Health are all within the Directorate for Place enabling close working between these teams. There is also a close working relationship with the Public Health Team in the Directorate for People, and their work on the built environment recognises the importance of aligning spatial planning and transport work with its associated impacts on air quality and health.

The development of a council-wide approach to air quality has brought services which have an interest and/or impact on air quality, including Public Health, Environmental Health, Transport Policy, Environmental Policy, Spatial Planning, Development Control, Street Care and Highways and Strategic Communications, together into a Board. The Clean Air and Climate Change Board is co-chaired by the Director for Place and the Director of Public Health and also covers the Council’s work on Climate Change. This ensures there is a joined-up approach across the two work areas, which are closely interlinked with often the same sources and interventions and secures alignment with the Council’s existing Climate Change Strategy<sup>9</sup>.

Public Health led on the development of a South Gloucestershire Clean Air Strategy, which was approved by the Council in July 2020. Subsequently, a new Clean Air Action

---

<sup>9</sup> <https://www.southglos.gov.uk/documents/Climate-Change-Strategy-201823-Final-sgc-signed-v1.pdf>

Plan (CAAP) has also been developed to implement the visions and priorities contained within South Gloucestershire's Clean Air Strategy and to fulfil the Council's statutory local air quality management duties to update the 2012 Air Quality Action Plan for the Kingswood and Staple Hill AQMAs.

It is anticipated that public consultation will be undertaken on the draft Clean Air Action Plan in Autumn 2022 and the South Gloucestershire Clean Air Strategy will be published alongside the draft CAAP. The consultation will seek the views of the public and businesses who may be affected by the actions and incorporate their views where appropriate, to help shape the final Clean Air Action Plan. Information will be available on the Council's consultation website in due course at [Homepage - South Gloucestershire Online Consultations \(southglos.gov.uk\)](https://www.southglos.gov.uk/consultations). Further information is provided in Section 2.2.

South Gloucestershire works closely with other neighbouring authorities in the West of England (Bath and North East Somerset, Bristol City and North Somerset Councils), and also with the West of England Combined Authority (WECA), to develop, implement and refine schemes with cross-boundary characteristics and particularly with regard to regional strategic work areas such as transport, e.g. the Joint Local Transport Plan (JLTP4<sup>10</sup>) and the Travel West<sup>11</sup> brand which acknowledges commuters do not think in terms of Council boundaries.

## Actions to Improve Air Quality

Whilst air quality has improved significantly in recent decades, and will continue to improve due to national policy decisions, there are some areas where local action is needed to improve air quality further.

The 2019 Clean Air Strategy<sup>12</sup> sets out the case for action, with goals to reduce exposure to harmful pollutants. The Road to Zero<sup>13</sup> sets out the approach to reduce exhaust emissions from road transport through a number of mechanisms; this is extremely

---

<sup>10</sup> <https://travelwest.info/projects/joint-local-transport-plan>

<sup>11</sup> <https://travelwest.info/>

<sup>12</sup> Defra. Clean Air Strategy, 2019

<sup>13</sup> DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018



important given that the majority of Air Quality Management Areas (AQMAs) are designated due to elevated concentrations heavily influenced by transport emissions.

The key completed measures to improve air quality are:

- Under the second round of the Clean Bus Technology Fund, First Bus and CT Plus have retrofitted nearly 150 buses with emissions-reducing technology.
- A £4.79m Office for Low Emission Vehicles (OLEV) funding grant was awarded to the four West of England local authorities and First Bus in August 2017. This funding has enabled the delivery of 98 bio-methane buses and two re-fuelling stations in the area. The new buses will contribute to reducing air pollution levels across the West of England area, including in the Staple Hill AQMA.
- Entire fleet of Council pool cars switched to electric in 2017, with OLEV funding secured to switch 20% of other fleet vehicles to electric in 2021.
- Access funding secured to 2021, to enable the continuation of school, business and community travel planning measures to promote sustainable travel choices.
- Across South Gloucestershire, as part of the Council response to Covid-19, new walking and cycling measures have been implemented through the DfT Active Travel Fund to enable social distancing and encourage more journeys by active modes. This includes some schemes in and near to the AQMAs and schemes such as school streets (the closure of roads near schools during drop off/pick up times), the trial pedestrianisation of Thornbury High Street and new cycle routes in Yate (Station Road) and Filton (Southmead Road). Further details are provided in Appendix F.

Full details of progress in implementing the existing Air Quality Action Plan for Kingswood and Staple Hill are contained in Section 2.2 of this report.

Other actions progressed in South Gloucestershire and on a wider West of England regional basis aimed at reducing traffic congestion and improving air quality include:

- Kingswood Town Centre Regeneration<sup>14</sup> - a project investigating the redevelopment potential of Kingswood High Street, including the possibility of re-routing traffic in Kingswood town centre.

---

<sup>14</sup> <https://www.southglos.gov.uk/business/regeneration/love-high-streets-kingswood/>

- Metrobus - an express bus service which aims to relieve congestion, reduce pollution, improve journey times and access to key employment, education and leisure destinations<sup>15</sup>. There are currently three metrobus routes in operation and proposed additional Metrobus routes are set out in the Joint Local Transport Plan 4.
- Cribbs Patchway Metrobus Extension<sup>16</sup> - an extension of the Metrobus network between Bristol Parkway railway station and The Mall at Cribbs Causeway. Construction is due to be completed in early 2023.
- MetroWest<sup>17</sup> – improved rail services and infrastructure being delivered in two phases by the West of England councils, working in partnership with Network Rail and Great Western Railway. Plans for a new rail station at Charfield<sup>18</sup> in Phase 2 are being developed with WECA funding.
- Cribbs Patchway New Neighbourhood Cycle Links – a £3.125m package of walking and cycling schemes has been delivered ahead of the completion of the first phase of the development to encourage more people to choose a sustainable travel mode from the outset.
- GoUltraLowWest<sup>19</sup> - completion of a £7m project funded by Office for Low Emission Vehicles (OLEV) to accelerate the purchase of electric vehicles and provision of charge points across Bristol, South Gloucestershire, North Somerset and Bath & North East Somerset.
- A38 and Bradley Stoke Way improvements – development of a scheme along the Thornbury to Bradley Stoke Way corridor to improve conditions for people walking, cycling, and travelling by bus to encourage mode shift. Funding has been secured to advance the scheme to detailed design and it is envisaged to be open by 2025.
- A432 Yate to Ring Road A4174 Corridor – development of a scheme along this corridor to improve conditions for people walking, cycling, and travelling by bus and

---

<sup>15</sup> <https://travelwest.info/metrobus>

<sup>16</sup> <https://beta.southglos.gov.uk/cribbs-patchway-metrobus-extension/>

<sup>17</sup> <https://travelwest.info/projects/metrowest>

<sup>18</sup> <https://beta.southglos.gov.uk/charfield-train-station>

<sup>19</sup> <https://travelwest.info/drive/electric-vehicles/go-ultra-low-west>

encourage mode shift. Funding anticipated to be secured to advance the scheme to detailed design.

- South Gloucestershire Electric Vehicle (EV) Charging Strategy – development of and recent consultation<sup>20</sup> on a draft EV charging strategy<sup>21</sup> which aims to support the transition to EVs.

Further information on these wider actions is provided in Section 2.2 of this report.

South Gloucestershire Council also continues to engage with Bristol City Council and Bath and North East Somerset Council on their Clean Air Plans, through meetings organised by the West of England Combined Authority (WECA). Further information about the Bristol Clean Air Plan is available on the [Clean Air for Bristol](#) website<sup>22</sup> and for the Bath Clean Air Plan, on the [Bath Breathes](#) website<sup>23</sup>.

The Bath Clean Air Zone (CAZ) launched on 15 March 2021 and the Bristol CAZ is planned to start on 28 November 2022<sup>24</sup>. The Government's Vehicle Checker tool<sup>25</sup> can be used to check whether there is (or will be) a charge to drive any particular vehicle in either CAZ [Check your vehicle \(GOV.UK\)](#).

## Conclusions and Priorities

The Covid-19 pandemic restrictions impacted monitored pollutant concentrations during 2020, and 2021, albeit to slightly lesser degree. Monitored NO<sub>2</sub> concentrations were particularly impacted with annual mean NO<sub>2</sub> concentrations across the diffusion tube monitoring network down by 22% compared to 2019, and in 2021 annual mean NO<sub>2</sub> concentrations were still on average 17% lower than in 2019. A 26% decrease in annual mean NO<sub>2</sub> concentrations in 2020 compared to 2019 was also observed at the Yate automatic monitoring site, and in 2021, there was still a 21% decrease in concentrations from 2019.

---

<sup>20</sup> <https://consultations.southglos.gov.uk/EVChargingStrategy/consultationHome>

<sup>21</sup> [South Gloucestershire Electric Vehicle Charging Draft Strategy.pdf \(southglos.gov.uk\)](#)

<sup>22</sup> <https://www.cleanairforbristol.org/>

<sup>23</sup> <http://www.bathnes.gov.uk/bath-breathes-2021>

<sup>24</sup> <https://www.bristol.gov.uk/residents/streets-travel/bristols-caz>

<sup>25</sup> <https://www.gov.uk/clean-air-zones>

Prior to this, air quality in South Gloucestershire had been gradually improving with long-term overall declining trends in nitrogen dioxide and particulate matter (PM<sub>10</sub>) concentrations. Pollutant levels had mostly been compliant with the national objectives, apart from in some locations where the air quality did not meet, or was close to, the annual mean objective for nitrogen dioxide (40 µg/m<sup>3</sup>), largely in the AQMAs.

However, in 2020 and 2021, there were no exceedences of pollutant objectives identified at any local air quality monitoring site, including in the AQMAs, and only one site in 2021 that was marginally “borderline” (once adjusted to reflect relevant exposure), albeit outside of the AQMAs in Patchway on the A38 Gloucester Road close to Hayes Way.

While there were no exceedences, or borderline sites within the AQMAs in 2020, revocation of the AQMAs based on compliance being achieved in 2020 is not considered appropriate, as advised in the Defra Covid-19: Supplementary Guidance for LAQM Reporting in 2021<sup>26</sup>. This is because 2020 monitoring data is not representative of long-term trends in pollutant concentrations, and it is uncertain whether the air quality objectives would continue to be met in future years. This is also likely to be applicable to the 2021 data.

It is important to note that while pollutant levels complied with the relevant objectives at the local air quality management (LAQM) monitoring sites, evidence shows that there are health impacts from air pollution at levels below the current national objectives, so it is important to further reduce people’s exposure to air pollution across the whole district<sup>27</sup>.

South Gloucestershire Council’s priorities for the coming year are to:

- Produce the final Clean Air Action Plan following public consultation and seek formal approval of the CAAP to enable implementation of the actions to begin to improve air quality within the AQMAs and across South Gloucestershire as a whole.
- Continue to monitor and assess the effectiveness of the JAQU directed scheme on the A4174 at Hambrook in achieving compliance with the annual mean NO<sub>2</sub> limit value, as traffic conditions return to more “normal” levels.

---

<sup>26</sup> [Covid-19-Supplementary-Guidance-for-Local-Air-Quality-Management-Reporting-in-2021-v1.pdf \(defra.gov.uk\)](https://www.defra.gov.uk/covid-19/supplementary-guidance-for-local-air-quality-management-reporting-in-2021-v1.pdf)

<sup>27</sup> [Air Quality - A guide for directors of public health \(defra.gov.uk\)](https://www.defra.gov.uk/air-quality/a-guide-for-directors-of-public-health)

The main challenges and barriers to implementation that South Gloucestershire Council anticipates facing are:

- Significant continued pressure on local government funding, exacerbated by the Covid-19 pandemic and the energy crisis, which could impact on delivering air quality improvements, including funding for the actual Clean Air Action Plan measures themselves.
- The uncertainties arising from the Covid-19 pandemic has impacted travel patterns and traffic volumes. Many organisations offer their office staff the ability to work from home for all or part of their contracted hours, reducing demand levels on the network. However, the acceleration in the popularity of home delivery services has increased the number of delivery vehicles on the road.
- Public transport usage continues to be well below pre-Covid-19 pandemic levels, which is impacting on the commercial viability of some bus routes with operators responding by reducing or withdrawing services. This makes it harder for travellers to choose sustainable modes of transport over the private car.
- With the increased uptake of electric powered vehicles being constrained by cost of living and supply chain issues, the knock-on impacts on fleet composition and future trends in pollutant concentrations is difficult to predict.

## Local Engagement and How to get Involved

### What you can do to reduce air pollution

There are many ways that everyone can help contribute towards improving air quality in South Gloucestershire. By making informed personal choices, particularly around how we travel and heat our homes, we can all reduce our personal contribution to air pollution and help improve air quality and improve our own health in the process.

To reduce pollution when travelling:

- Swap some trips in the car for walking, cycling or taking a bus or train, where possible, as this not only reduces air pollution but also, if walking and cycling, improves your health and wellbeing.
- Consider sharing lifts which will save you money on fuel as well as reducing the number of cars on the road.
- Travel outside peak hours and/or work from home, if possible, to save time spent in traffic and use less fuel, reducing emissions while saving time and money.
- If you are thinking of changing your vehicle, try switching to a less polluting type of vehicle and opt for the cleanest vehicle you feasibly can. As a general rule, electric vehicles have the lowest emissions, and then in order of increasing emissions; petrol hybrids, gas or petrol vehicles, diesel hybrids and lastly, diesels have the highest emissions. Emissions can vary depending on make and model and some perform better than others when the emissions in real world driving conditions are compared to the required Euro standards for vehicles. To check the emissions of your vehicle or a vehicle you are considering purchasing, there is an [online vehicle checker](#)<sup>28</sup> on the Mayor of London/ London Assembly website.
- Visit the [Travel West](#)<sup>29</sup> and [Better by Bike](#)<sup>30</sup> websites for live information on public transport, traffic reports, routes and journey planning for walkers and cyclists, electric vehicle charge points and other information that simplifies travel choices.

To help reduce pollution from domestic heating:

- If a property does not already have a solid fuel burner, e.g. a stove or fireplace, the best option is not to install one, as even the cleanest wood

---

<sup>28</sup> <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/cleaning-londons-vehicles>

<sup>29</sup> <https://travelwest.info/>

<sup>30</sup> <https://betterbybike.info/>

burning appliance emits significantly more particulate matter pollution than a gas oil or gas appliance.

- Should you still plan to install a stove, then the lowest emission stoves currently on the market are those that are ‘Eco-design Ready’. These meet the EU standards that were introduced in 2022 for all new stoves sales in the UK.
- If you already own a stove or fireplace and choose to use it, make sure you follow the “[Open fires and wood-burning stoves](#)” advice leaflet<sup>31</sup> by using the right fuel on an efficient and well-maintained appliance. Some of South Gloucestershire is covered by a [Smoke Control Area](#)<sup>32</sup> which allows only approved appliances and fuels to be used.

In May 2021, the Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020<sup>33</sup> came into force. These regulations have been introduced to reduce particulate emissions from the residential burning of wood and other solid fuels and will phase out the use of bituminous coal and the burning of unseasoned wood in domestic heating appliances.

- Consider a boiler upgrade to the newest and most efficient gas condensing boiler with lowest NO<sub>x</sub> (and carbon) emissions, especially if the boiler is more than 10 years old. In many cases, the long-term savings made with a more efficient boiler will cover the outlay.
- Consider installing “clean” renewable energy generation, for example via solar photovoltaics or air source heat pumps.

There are choices that we can all make to reduce air pollution. Relatively small changes all add up, and if everyone contributes, it can make a big difference overall.

Further information is available on our website [www.southglos.gov.uk/airquality](http://www.southglos.gov.uk/airquality).

---

<sup>31</sup> [Open fires wood burning stoves - guide-A4-update-12Oct \(defra.gov.uk\)](#)

<sup>32</sup> <https://www.southglos.gov.uk/environment-and-planning/pollution/pollution-control-clean-air-act-approval/smoke-control-areas/>

<sup>33</sup> [The Air Quality \(Domestic Solid Fuels Standards\) \(England\) Regulations 2020 \(legislation.gov.uk\)](#)

## Local Responsibilities and Commitment

This ASR was prepared by the Environmental Health Team of South Gloucestershire Council with the support and agreement of officers from the following teams:

Transport and Environmental Policy

Public Health

This ASR has been approved by:

Executive Director of Place (Nigel Riglar), Acting Service Director – Place Operations (Customer and Regulatory) (Gerard Madden) and Environmental Protection Team Leader (Allison Jay).

This ASR has been signed off by the Director of Public Health (Sarah Weld).

If you have any comments on this ASR, please send them to the Environmental Protection Team at:

Address: South Gloucestershire Council

Department for Place  
Environmental Protection  
PO Box 1954  
Bristol  
BS37 0DD

Telephone: 01454 868001

Email: [environmental.protection@southglos.gov.uk](mailto:environmental.protection@southglos.gov.uk)