Reading Borough Council's Air Quality Priorities

1.3 Public Health Context

Poor air quality is the largest environmental risk to public health in the UK. Air pollution can cause, complicate, or exacerbate many adverse health conditions. It usually manifests in respiratory or cardiac symptoms and can lead to chronic health issues. Recent studies show that poor air quality can affect every organ in the body and even cause damage to cognitive performance. Exposure to poor air quality is directly related to diseases such as cancer, asthma, strokes, heart disease, diabetes, obesity and dementia.

Health effects of pollutants can impact on people's health in the short-term or long term, as shown in **Figure 7**⁹.

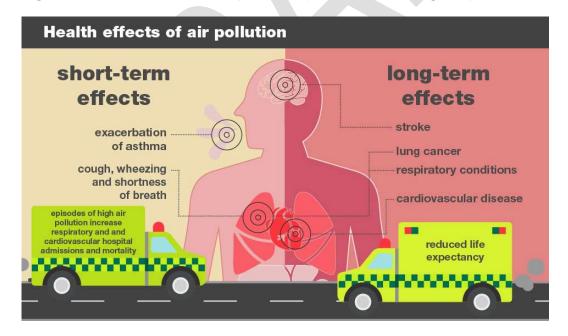


Figure 7 - Health effects of air pollution (Public Health England).

⁹ This figure forms part of the Guidance "Health Matters: air pollution", which was published by Public England on their website on 14th November 2018

According to the World Health Organisation (WHO), air pollution is associated with 7 million premature deaths worldwide every year, of which 4.2 million are attributed to exposure to outdoor air pollution. The WHO estimate that 99% of people in the world breathe air containing health impacting levels of air pollutants¹⁰.

With this in mind, and despite some emphasis being placed on reducing emissions on Reading's IDR (where air quality is poorest), several actions listed within this AQAP to improve air quality have been designed to improve on the current situation across the whole of the borough.

1.3.1 Health Inequalities

Air pollution can affect people from different ethnicities, ages, and social groups. It is likely to have greater impacts on those who experience high amounts of exposure and those who have greater susceptibility. The most vulnerable are those with preexisting health conditions, children, or the elderly.

Several studies are also showing a strong correlation between poor air quality and inequality issues. A 2019¹¹ research study, led by academics at the Air Quality Management Resource Centre at the University of the West of England, Bristol, found that social inequalities in traffic-related pollution exposure are 'clearer and stronger' than ever before. The study found that while young children, young adults, and households in poverty have the highest levels of exposure to air pollution, it is the richer households who are more responsible for it.

In December 2020, Ella Adoo-Kissi-Debrah became the first person to officially have air pollution listed as a cause of death on her death certificate. Ella lived near a major circular road in southeast London and died in 2013 when she was 9 years old. At the inquiry into Ella's death, the coroner Philip Barlow cited that;

Reading Borough Council Air Quality Action Plan – 2024 - 2029

¹⁰ WHO (2023). Air Quality and Health. https://www.who.int/teams/environment-climate-change-and-health/air-quality-and-health/health-impacts/exposure-air-pollution

¹¹ Barnes et al (2019) Emissions vs exposure: Increasing injustice from road traffic-related air pollution in the United Kingdom.

"Air pollution was a significant contributory factor to both the induction and exacerbation of her asthma" and "that the cumulative effect of continuously breathing in toxic air caused her fatal asthma attack".

A recent study from the Office for National Statistics¹² also shows a strong positive correlation between the proportion of population in the UK that falls into the Black, Asian and Minority Ethnicity (BAME) category and the exposure of NO₂ measured over a period of 10 years across several areas in England.

Reading's Public Health department not only aims to improve health, but also reduce health inequalities by using an evidence-based approach to make recommendations on the delivery of health and wellbeing services. As such, this Action Plan will support work underway within the public health arena.

1.4 Planning and Policy Context

1.4.1 National Policy

National Planning Policy Framework

The National Planning Policy Framework (NPPF)¹³, which was revised in July 2021, sets out the Government's planning policy for England. At its heart is an intention to promote more sustainable development. The planning system should play an active role in guiding development to sustainable solutions and air quality is a material planning consideration.

A core principle in the NPPF that relates to air quality effects from development is that planning should "contribute to conserve and enhance the natural and local environment". In achieving this, it states in paragraph 174 that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by: [...]

¹² The ONS acknowledges air pollution is one of many factors that may be driving disproportionate outcomes for black, Asian and minority ethnic (BAME) people – Ethnicity is strongly correlated with pollution exposure in England, with ethnic minorities more likely to live in polluted areas.

¹³ Department for Communities and Local Government (DCLG), (2021), National Planning Policy Framework.

preventing new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality [...]".

Regarding compliance with relevant limit values and national objectives for pollutants the NPPF, paragraph 186 states:

"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."

Climate Change and Decarbonisation

The UK Government has committed to cutting greenhouse gas emissions by at least 68 percent by 2030 and is to end support for the fossil fuel sector overseas. Commitments to cutting greenhouse gas emissions will also benefit local air quality by bringing forward plans for decarbonising various sectors including transport, as well as industry, energy and domestic sources of emissions.

The Climate Change Act 2008 sets up a framework for the UK to achieve its long-term goals of reducing greenhouse gas emissions and to ensure steps are taken towards adapting to the impact of climate change. The Act saw the UK tasked with reducing emissions by at least 80% by 2050.

The government set out it's "Road to Zero" Strategy¹⁴ for cleaning up road transport emission and published the Transport Decarbonisation Plan (TDP) *Decarbonising transport: a better, greener Britain*¹⁵ in July 2021. The TDP outlines the Government's current position on transport emissions, including highlighting current policies and strategies in place to decarbonise the transport sector. The TDP sets out to ban the sale of diesel and petrol cars and light goods vehicles from 2030, followed by the requirement for all new cars and vans to be fully zero emission at the tailpipe by 2035. Additionally, the Government have published a consultation on ending the sale of all non-zero emission Heavy Goods Vehicles (HGVs) from 2040, with lighter HGVs from 2035¹⁶.

Statutory Obligations to Reduce PM_{2.5}

PM_{2.5} is becoming more focal to the UK's air quality ambitions. In 2019, the UK's Clean Air Strategy¹⁷ proposed the introduction of new, ambitious, long-term air quality targets for PM_{2.5}. In 2021, the Environment Bill¹⁸ committed the Secretary of State to setting new Air Quality Objectives for PM_{2.5}.

Subsequently, the 2023 Air Quality Strategy¹⁹ stipulates two new legally-binding long-term targets to reduce concentrations of fine particulate matter, PM_{2.5}. The two new targets are an annual mean concentration of 10 µg/m³ or below and a reduction in average population exposure by 35% by 2040, compared to a 2018 baseline. These targets will help drive reductions in the worst PM_{2.5} hotspots across the country, whilst ensuring nationwide action to improve air quality for everyone.

 $\underline{\text{https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf}$

¹⁴UK Govt Department for Transport (2018)

¹⁵ DfT (2021), Decarbonising transport: a better, greener Britain. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002285/decarbonising-transport-a-better-greener-britain.pdf

¹⁶ DfT (2021) Heavy goods vehicles: ending the sale of new non-zero emission models. Available at: https://www.gov.uk/government/consultations/heavy-goods-vehicles-ending-the-sale-of-new-non-zero-emission-models

¹⁷ Defra (2019). Clean Air Strategy 2019. Accessible at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf

¹⁸ Uk Govt (2021). Environment Act 2021

¹⁹ Defra (2023). Air Quality Strategy – Framework for Local Authority Delivery. Accessible at <a href="https://assets.publishing.service.gov.uk/government/uploads/system

The Environmental Improvement Plan 2023²⁰, which supplements the Air Quality Strategy, sets out the delivery plan to achieve the targeted pollutant reductions, which has been reviewed accordingly during the production of this AQAP. The Improvement Plan also sets an additional interim long-term target for PM_{2.5}, of 12 µg/m³, to be achieved by January 2028.

The Government's Air Quality Strategy stipulates that all local authorities must take sufficient action to reduce PM_{2.5} emissions from sources within their control. In circumstances where the extent of measures from local authorities are deemed insufficient, the Government will consider implementing statutory duties on local authorities. Reading can confirm that PM_{2.5} has been given considerable weight throughout this AQAP.

Reading acknowledges that the Environment Bill, Air Quality Strategy and Environmental Improvement Plan target reductions in all pollutants, not solely PM_{2.5}. The measures set out within this Action Plan are designed to reduce emissions of several key pollutants, across all sectors within the control of the Council.

Along with the commitment to set targets on air quality for the UK, the new Bill also promises the creation of a new independent Office for Environmental Protection to scrutinise environmental policy and law, investigate complaints, and take enforcement action against public authorities, if necessary, to uphold current and future environmental standards.

1.4.2 Local Policy

Reading has key plans, strategies, and policies that the AQAP will compliment and support.

Reading Local Plan

²⁰ Govt (2023). Environmental Improvement Plan 2023. Accessible at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1168372/environmental-improvement-plan-2023.pdf

The Reading Local Plan²¹ guides development in Reading up to 2036 and will therefore play a key role in how the town evolves, with core objectives for sustainable growth. The Local Plan seeks to deliver new homes and employment space in Reading, alongside critical infrastructure to accommodate forecast housing demands and job creation, and to ensure the town remains an attractive place to work, live and study.

Local Plan <u>Policy EN15: Air Quality</u> is of direct relevance to air pollution in the planning context:

"Development should have regard to the need to improve air quality and reduce the effects of poor air quality.

- i. Development that would detrimentally affect air quality will not be permitted unless the effect is to be mitigated. The following criteria should be taken into account:
 - Whether the proposal, including when combined with the cumulative effect of other developments already permitted, would worsen air quality;
 - Whether the development is within, or accessed via, an Air Quality Management Area; and
 - Whether it can be demonstrated that a local worsening in air quality that would not detrimentally affect human health or the environment would be offset by an overall improvement in air quality, for instance through reduction in the need to travel.
- ii. Where a development would introduce sensitive uses (such as residential, schools and nurseries, hospitals, care facilities) into, or intensify such uses within, an Air Quality Management Area, detrimental effects on that use will be mitigated. Mitigation measures should be detailed in any planning application. If there

²¹ Reading Borough Council (2019). Reading Borough Local Plan – Adopted November 2019.

are significant detrimental effects that cannot be mitigated, the application should be refused.

iii. Where required, planning obligations will be used to secure contributions to measures to tackle poor air quality or for air quality monitoring."

This policy aims to ensure that increased development within Reading does not lead to a net increase in emissions as well as ensuring any increased exposure within the poorest areas of air quality is accompanied by appropriate mitigation.

In addition to this are several policies of indirect relevance to air quality, including:

- CC3: Adaption to Climate Change
- TR1: Achieving the Transport Strategy
- TR2: Major Transport Projects
- TR4: Cycle Routes and Facilities; and
- TR5: Car and Cycle Parking and Electric Vehicle Charging.

Reading 2050 Vision

The Reading 2050 Vision is an ambitious description of what Reading can be, with three themes central to Reading's long-term success as a smart and sustainable city. These three themes are:

- A green tech city
- A city of culture and diversity
- A city of rivers and parks

The report envisages a place where low carbon living will be the norm, and where the built environment, technology and innovation have combined to create a smart, dynamic and sustainable city, with a high quality of life and equal opportunity for all.

Climate Emergency Declaration and Strategy 2020-2025

Reading Borough Council declared a climate emergency in February 2019 which highlighted its commitment to playing a full role and leading by example in achieving a carbon neutral Reading by 2030. The Reading Climate Emergency Strategy 2020-25 sets out the actions required during the five-year period to work towards the

objective of a net zero carbon Reading by 2030, the target adopted in the climate emergency declaration. There are several actions within the strategy that will help drive down local emissions:

- T13: Develop a zero-emission vehicle strategy for the Borough
- T14: Decarbonise the Council Vehicle Fleet
- T15: Increase Public Electric Vehicle Charging Points
- T16: Increase Zero Emission Vehicles Uptake
- T18: Planning Policy for EV Charging in new properties
- T19: Reduce emissions from the Taxi Fleet; and
- T20: Improve Electric Vehicle Charging Infrastructure

Reading Transport Strategy 2040 (Local Transport Plan)

As demonstrated in Chapter 0 of this AQAP, nitrogen dioxide concentrations have generally improved across Reading in recent years. Nonetheless, some areas of Central Reading are still in, or close to, exceedance of legal objectives, specifically at locations close to busy and congested roads. Many of Reading Borough Council's actions therefore revolve around improvements to Reading's local transport network.

The Reading Transport Strategy will help to deliver both the Reading 2050 and Reading Local Plan visions, through an ambitious programme of measures to enable and encourage sustainable travel choices in the town by 2040, with the intent that future transport strategies will continue to support the Reading 2050 vision in the longer term.

Strategic objectives have been developed (see Figure 8, below) as the guiding principles running through this strategy to ensure and set out how Reading will measure success in delivering the vision for transport in Reading.

Figure 8 – Reading Transport Strategy Objectives



The Local Transport Strategy sets out 32 strategic policies and proposes over 40 schemes and initiatives to achieve the above objectives. Most of these prospective schemes and initiatives will offer benefits to local air quality, at least indirectly. Some of these initiatives are discussed in further detail within Section 0 of this AQAP.

Carbon Plan 2020-25

The Carbon Plan sets out policy and targets on corporate energy and water management and identifies actions to achieve these within the time period 2020-2025. The plan includes actions which relate to reducing and decarbonising Reading's own buildings and services, including transport which accounts for 15% of CO₂ emissions (2018/19) for the authority.

Berkshire West Health and Wellbeing Strategy 2021-2030

Reading's Health and Wellbeing Strategy sets out the areas the Council will focus on to improve and protect the health and wellbeing of people who live in Reading and those who visit. The strategy and associated action plan cover a wide range of topics, including a vision that all residents will benefit from a healthy environment, a

'<u>Health in All Policies'</u> approach to reduce health inequalities, the benefit to mental and physical health of increased physical activity levels through active travel and a recognition of the benefits of greater social connectedness through improved access to transport.

Corporate Plan

The Corporate Plan sets out how the Council will enable Reading to realise its full potential and ensure that everyone who lives and works in Reading can share the benefits of its success.

The Council has listened to what residents, businesses and partners have said about their experience of Reading, and their hopes and aspirations for the town. In this year's residents survey, the Council heard that residents are satisfied with how it runs services in Reading but would like to see more action taken on affordable housing, levels of crime, road conditions, congestion and climate change. Through public consultation on major change initiatives – such as the new Local Transport Plan and the Climate Emergency Strategy – the Council knows it has the support of residents and partners to make the required changes. The Council will drive the necessary change in Reading by focussing on the following three themes:

- Healthy environment
- Thriving communities
- Inclusive economy

1.5 Source Apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within Reading Borough Council's administrative area.

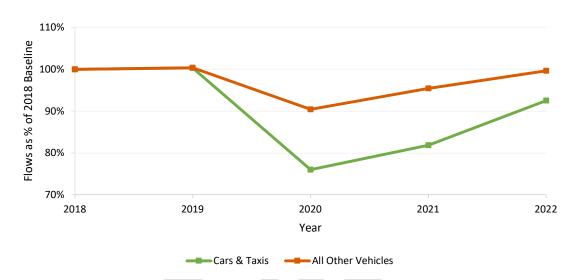
A source apportionment exercise was carried out by Reading Borough Council in 2023, using data from 2022/ 2023 (post-Covid), where possible.

The Influence of Covid-19 on Air Quality

We appreciate that Covid-19 has had a substantial influence on air quality across the UK (see **Figure 4**) and there is still uncertainty regarding how long-lasting some of its effects could be. It is widely accepted that one of the key influences for the improved

air quality conditions observed during the pandemic was a reduction in vehicle flows. The Department for Transport (DfT) has provided regional traffic statistics for the borough of Reading²², which have been used to demonstrate how the number of vehicle trips has changed during and since the pandemic, as shown in Figure 9.

Figure 9 – Annual average vehicle flows in Reading as a proportion of the 2018 baseline



The data clearly demonstrates that the pandemic had a disproportionately greater effect on car trips than on trips made by other vehicles (light goods vehicles, heavy goods vehicles and buses). In 2022, trips by other vehicles returned to pre-Covid levels. Car and taxi trips have increased but remain considerably below pre-Covid levels, which could explain why air quality was considerably better in 2022, than 2019. Whether car trip volumes will continue to increase, or whether the pandemic will have long-lasting effects on travel behaviours (e.g. a permanence to 'working from home' trends), will become apparent in future years.

In the unlikely event that air quality worsens in subsequent years, this source apportionment exercise should be reviewed to determine whether any associated conclusions remain relevant.

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²² DfT (2023). Road Traffic Statistics. Accessible at https://roadtraffic.dft.gov.uk/#6/55.250/-1.000/basemap-regions-countpoints

Sources of Pollution

Pollutants can arise from an amalgamation of local sources, as well as sources imported from other regions, cities (e.g. London) and land masses (e.g. Europe). Vehicle emissions will arise from the combustion of fossil fuels in vehicle engines and their subsequent release to atmosphere via tailpipe exhausts. The most significant pollutants released by cars and other vehicles are oxides of nitrogen (NO_x) and particulate matter (PM_{10} and $PM_{2.5}$).

Other (background) sources might include emissions from commercial operations, domestic heating, industry, energy production, airports and railways, or even from secondary chemical reactions in the atmosphere.

1.5.1 Nitrogen Oxides (NO_x)

A source apportionment study provides information on the sources of pollutants, to assist in identifying which sectors should be targeted to deliver the most effective emissions reduction strategy to deliver compliance with Air Quality Objectives. As discussed in Section 1.2.1, most of Reading is currently compliant with all Air Quality Objectives, but there remain some areas where NO₂ concentrations are unacceptably high.

Transport is responsible for more than two thirds of all NO_X emissions and accounts for a significant proportion (around 10% or more) of the total emissions of other pollutants. Road transport, in particular, continues to account for a significant proportion of emissions of all the main air pollutants.

Figure 10, below, displays the average weekly temporal variability in NO₂ concentrations at Reading's RD1 Automatic Monitor, located adjacent to the A329 Caversham Road, throughout 2022. The data highlights significant NO₂ peaks specifically during the morning and evening 'rush-hour' periods from Monday to Friday. This corroborates our understanding that road transport emissions are a substantial source of NO_X pollution near Reading's arterial road network.

Concentrations reduce at the weekends, likely due to an overall reduction in vehicle movements. This is a trend that was comparably identifiable before the Covid-19 pandemic.

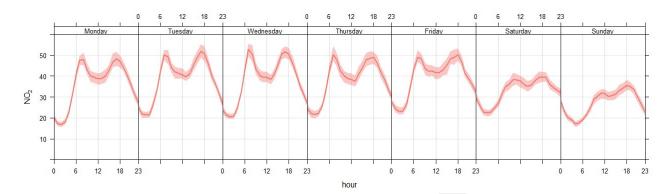


Figure 10 – Weekly variability in NO₂ concentrations at RD1 in 2022.

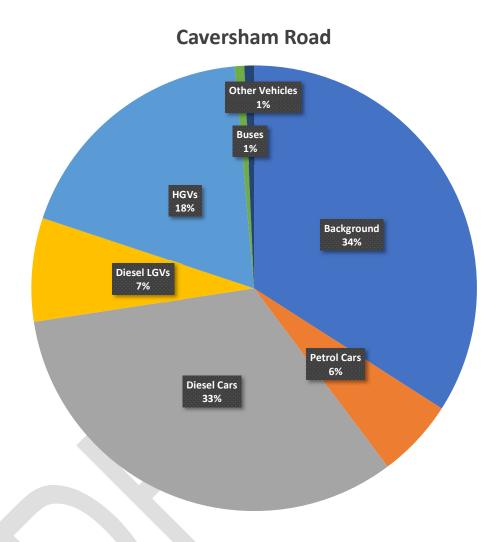
NO_X Source Apportionment

Acknowledging the above evidence, the NO_X source apportionment focuses on the local vehicle fleet. Traffic data were obtained from the DfT and Reading Borough Council's own traffic count data, and fleet emissions data were obtained from Defra's latest Emissions Factor Toolkit (EFT v11.0) and Reading's own bus fleet data. Locations with both suitable traffic data and monitoring data were used for analysis.

According to manually counted traffic data, cars, taxis and light good vehicles (LGVs) comprise over 90% of all vehicle trips on almost all of Reading's road network.

As such, it is no surprise that the bulk of traffic emissions at roadside locations are from cars, taxis and LGVs. **Error! Reference source not found.** shows that of the 66% of NO_x concentration attributable to vehicle traffic, 39% is attributable to cars (primarily diesel cars), 7% to diesel LGVs, 18% to HGVs and 1% to buses.

Figure 11 – NOX Concentration Source Apportionment for the Caversham Road exceedance location (#DT43)



For context, at the Caversham Road diffusion tube (the only AQO exceedance location in 2022), where an NO₂ concentration of 43.3 $\mu g/m^3$ was recorded, almost 17 $\mu g/m^3$ of the annual mean concentration arises from car traffic, approximately 3 $\mu g/m^3$ from diesel LGVs, 8 $\mu g/m^3$ from HGVs and approximately 0.3 $\mu g/m^3$ from buses.

According to the above data, the key issue from an air quality perspective is associated with the volume of diesel cars on the road network. Therefore, any measures to reduce the number of diesel car trips and associated congestion issues are likely to enable air quality improvements and encourage Reading towards being fully compliant with all Air Quality Objectives.

HGV emissions are also a considerable contributor to local air pollution at this location. Reading's Transport Strategy acknowledges that a uniquely large proportion of vehicle trips along Reading's IDR are HGVs, likely due to the convenience of this road network for cross-Thames travel. At other locations across Reading, such as B3345 George Street and A4155 Castle Hill, the contribution of HGVs to local NOx concentrations is over 10% less than the contribution of HGVs on the IDR.

It is worth acknowledging that approximately a third of NO_X concentrations are generated from non-vehicular sources. Defra provides estimated background concentrations of the UKAQS pollutants at the UK Air Information Resource (UK-AIR) website²³. These estimates are produced using detailed modelling tools and are presented as concentrations at central 1km² National Grid square locations across the UK. UK-AIR estimates that approximately 6% of NO_X is generated from domestic, institutional or commercial combustion heating, with a similar proportion generated from railway freight movements. The majority of background emissions are from regional rural sources.

It is acknowledged that Defra's UK-AIR background data is collected for 1km² grid squares, so is not necessarily site specific. In the case of the Caversham Road diffusion tube, the estimate background concentration is likely to be close to this value, but the tube's proximity to the railway means the proportion of railway freight emissions could be slightly higher than the estimated value. Reading Borough Council are intent on investigating the air quality impacts of Reading's railways further in the coming years.

1.5.2 Particulate Matter

Exhaust emissions and brake and tyre wear are likely to constitute a notable proportion of PM emissions (potentially up to 20%) close to Reading's arterial road

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²³ Defra: UK-AIR. www.uk-air.defra.gov.uk

network, so measures to reduce vehicular NO_X emissions should inherently help enable PM reductions also.

However, unlike NOx, a considerable proportion of PM is produced from non-vehicular sources. Defra's UK-AIR estimates that approximately 20% of Reading's PM_{2.5} concentrations are from naturally occurring sources (e.g. sea spray and pollen), almost 20% is from domestic, institutional or commercial combustion heating, and the vast majority is from transboundary sources (i.e. Europe) or formed through secondary reactions in the atmosphere.

The notion that the primary sources of PM differ to those of NO_x is corroborated by comparing **Figure 4** to **Figure 6**, where long term trends in NO₂ concentrations differ to that of PM.

One possible cause of the recent plateauing of PM concentrations (increases, in some cases) is from recent increases in domestic solid fuel burning. Since 2011, Defra estimates that PM_{2.5} emissions from domestic wood burning have increased by over 124%, with a recent UK-wide survey identifying that 1 in 13 homes burned wood²⁴. Public Health England approximate that solid fuel burning could now account for over 30% of local PM emissions²⁵.

Temporal variability in PM concentrations at Reading's urban background automatic monitor show regular peaks in the evenings, which are exacerbated in winter and at weekends (see Figure 12, below). Given the 'sharpness' of this peak, its prominence compared to the same peak in summer months, and the fact that the peak continues well beyond the weekday afternoon traffic 'rush-hour', the source of the peak is likely to be arising at least partly from localised domestic and commercial solid fuel combustion sources.

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²⁴ Defra (2023). National Statistics: Emissions of air pollutants in the UK – Particulate Matter (PM10 and PM2.5).

²⁵ PHE (2019). Review of Intervention to Improve Outdoor Air Quality and Public Health.

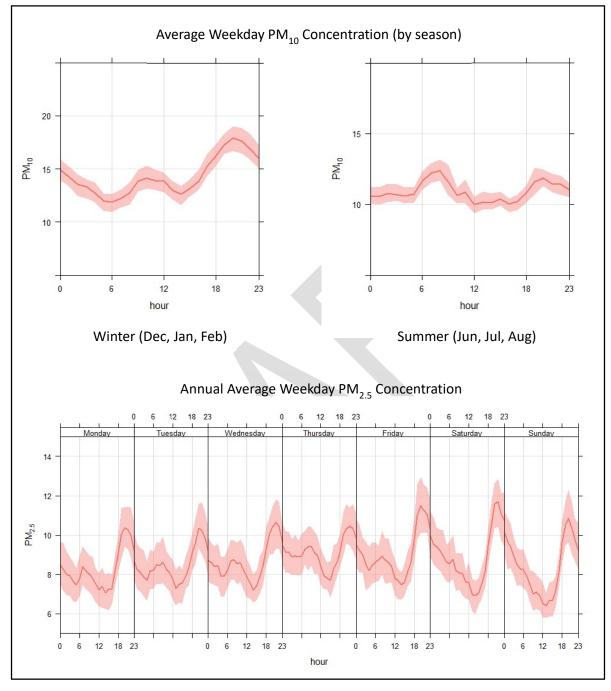


Figure 12 – Weekday variability in PM concentrations at Reading AURN in 2022.

As such, Reading Borough Council intend to place considerable weight to reducing this emission source.

1.6 Required Reduction in Emissions

Within Reading, there is currently one location identified as being in exceedance of any of the legal UK Air Quality Objectives. This is at Diffusion Tube #43, on

Caversham Road, where a 2022 annual mean NO_2 concentration of 43.3 $\mu g/m^3$ was recorded, 8.25% above the annual mean AQS.

Following the calculation processes prescribed in LAQM.TG(22)²⁶, a road NO $_{\rm X}$ concentration reduction of over 7.61 μ g/m³ would be required to achieve compliance at this location, which represents a 15% reduction in road NO $_{\rm X}$ emissions.

1.7 Key Priorities

AQAP policy options will include direct policy interventions, infrastructure schemes, education or enabling options, to support Readings ambitious plans and UK strategies going forward. As such, policy options will include strategies to encourage or accelerate the uptake of low to zero emission vehicles, non-diesel vehicles, increase modal shift and discourage vehicle usage in certain areas where people live or go to school. Active travel and health options are also prioritised in the AQAP, alongside measures to reduce particulate matter concentrations.

As based on the conclusions of the above, the areas prioritised for action include:

- Priority 1 reduce road NOX & PM emissions throughout Reading, with emphasis placed on reducing emissions on Reading's Inner Distribution Road (IDR);
- Priority 2 reduce exposures of individuals and locations where vulnerable people (children, elderly and those with cardiovascular disease) live, work or visit;
- Priority 3 encourage, enable and support people and businesses to shift from high polluting to zero emission transport or energy options;
- Priority 4 inform and educate people on the financial, environmental and health benefits of active travel, modal shift and reducing emissions through our daily lives;

²⁶ Defra. (2022). Part IV of the Environment Act 1995, Environment (Northern Ireland) Order 2002 Part III, Local Air Quality Management, Technical Guidance LAOM. TG(22). London: Defra.

- Priority 5 inform, educate and enforce compliance (where necessary) on domestic wood burning regulations, to reduce local PM2.5 emissions; and
- Priority 6 improve our monitoring network and planning requirements to support other projects and ensure new developments align with the aims of this AQAP.

