Birmingham City Council

Breathless in Birmingham: Clean Air Inquiry

An Overview and Scrutiny Report

27 January 2026

Contents

Further information regarding this report can be obtained from:

Amelia Wiltshire

E-mail: amelia.wiltshire@birmingham.gov.uk

Reports that have been submitted to Council can be downloaded from www.birmingham.gov.uk/scrutiny

Chair's Foreword

Councillor David Barker, Chair of Inquiry and Chair of Sustainability and Transport Overview and Scrutiny Committee

Birmingham is often portrayed as a diverse but divided city. The life expectancy as you move further into poorer inner-city communities drops quickly – leaving a gap as big as ten years between wealthier and poorer neighbourhoods. That's like losing a year or more of your life for every stop on the Cross-City train line as you get closer to New Street. There are many factors at play here, but the correlation between better air quality and better life outcomes cannot be ignored.

Last year, the Sustainability and Transport Overview and Scrutiny committee discussed what we should focus on in the final year of this Council term. Having undertaken two transport inquiries, we agreed that this time we needed to look more into sustainability and where we could add value. Sustainability can, all too often, be looked at in isolation, and only viewed as a virtue in and of itself. The inquiry wanted to focus on what we can deliver for our residents through sustainability measures. I often repeat that the goal of sustainability should be to make people, "healthier, wealthier, and safer," and that is what has driven our findings and recommendations.

Air quality is not a new issue for Birmingham City Council. In 2021 the Council introduced a clean air zone, which has seen a significant improvement within the zone itself. However, this project only came about after government intervention forced the Council to act. In May 2023, a decision to extend the Tyseley incinerator was unanimously called in by the scrutiny committee, where concerns were raised that not enough had been done to prepare for a future without the incinerator.

Over the coming 2026-2030 Council term, the next administration will have to take major decisions regarding the future of the Clean Air Zone, the Tyseley incinerator, and numerous other policies linked to air quality. This inquiry is focused on how to add value by supporting the administration to be better prepared to take proactive steps that improve air quality. But, as we are in an election year, we have to be mindful that the political composition and control of Birmingham City Council could change.

My view from the outset was that we need to find a consensus between all political parties when setting findings and recommendations for them to be strong enough to withstand potential political change post-May 2026. This is why I invited all political parties represented in Birmingham City Council to join the inquiry. I am very grateful for all parties already represented on the committee for welcoming into the inquiry observers from the Green and independent groups. A larger, and more diverse, inquiry group meant better representation of the city and Council. However, more people meant more opinions, so I want to thank everyone involved for working together to ensure we could unanimously agree the recommendations in this report.

The inquiry group owes particular thanks to the incredible scrutiny team we have in Birmingham, particularly Amelia, Baseema, and Owen, who have facilitated this inquiry and worked hard to provide information in advance of evidence gathering sessions, and synthesise what we found. We want to thank too the teams of Council officers who gave evidence over the three sessions for many hours, and for the brilliant work already being undertaken. And we are grateful to the Executive for accepting our recommendations as constructive challenge in the spirit scrutiny should have of a critical friend to the administration.

I am also personally very grateful to the external support and advice of outside organisations and campaigners. Thank you to Kirsten De Vos from Mums For Lungs, Waseem Zaffar from Birmingham Healthy Air Coalition and the Clean Air Justice Network, and Isaac Beevor from Climate Emergency UK. I am also indebted to everyone at UK100 for being a sounding board and source of wisdom over the past few months: Christopher Hammond, Philip Glanvile, Cecily Spelling, and Kelsey Trevett, and everyone in my cohort on the 2025 Climate Leadership Academy. Thanks to you, we were also able to set stronger recommendations, consider emerging concerns like the impact of wood burners, and look into the role of Council partners, like the private sector, as well as so much more.

Finally, this inquiry was only possible because of the generosity of time from my cross-part group of colleagues: Councillor Colin Green, Councillor Tim Huxtable, Councillor Richard Parkin, Councillor Ziaul Islam, Councillor Martin Brooks, Councillor Jane Jones, Councillor Julian Pritchard, and Councillor Barbara Dring.

Summary of Recommendations

Ref	Recommendations to Cabinet Members	Responsibility	Completion Date
R01	Carry out a review to adopt targets which go beyond the legal limits for nitrogen oxide and particulate matter to enable Birmingham to better tackle health inequalities related to air quality.	Cabinet Member for Environment and Transport	9 months (October 2026)
R02	Co-sign a letter from the Sustainability and Transport Overview and Scrutiny Committee to the Government to lobby for legislation with stronger Clean Air targets that are at least as strong as the proposals from campaign such as Asthma and Lung UK.	Cabinet Member for Environment and Transport	1 month (February 2026)
R03	Present a report to the Sustainability and Transport Overview and Scrutiny Committee and Health and Adult Social Care Overview and Scrutiny Committees to consider the key findings from the Joint Strategic Needs Assessment (JSNA) deep dive into air quality and make recommendations to the Executive based on the findings.	Cabinet Member for Health and Social Care/ Cabinet Member for Environment and Transport	9 months (October 2026)
R04	Establish an outcomes focused air quality working group with NHS partners, and other key stakeholders, including the Healthy Homes Board to: • Produce an action plan addressing both indoor and outdoor air quality and including timescales and measures of success; • Inform development of proposed air quality health interventions, in particular, interventions delivered in partnership; and • Publish an annual report measuring health impacts and benefits.	Cabinet Member for Health and Social Care/ Cabinet Member for Environment and Transport	9 months (October 2026) 12 months (January 2027) 12 months (January 2027)
R05	Ensure all Cabinet reports for decisions relating to Clean Air Zone (CAZ) funding and Net Zero projects include health and mental health implications	Cabinet Member for Environment and Transport	6 months (July 2026)
R06	Present a report to the Sustainability and Transport Overview and Scrutiny Committee setting out the combined health impact of programmes located around schools targeting air quality including the Schools Street programme and anti-idling projects and also set out what further interventions are needed.	Cabinet Member for Environment and Transport/ Cabinet Member for Health and Social Care	9 months (October 2026)

Ref	Recommendations to Cabinet Members	Responsibility	Completion Date
R07	Present a report to the Sustainability and Transport Overview and Scrutiny Committee reviewing what the Council understands about wood burners (including both domestic and commercial) and their impact on air quality in Birmingham, what action it is currently taking and what opportunities for further action exist.	Cabinet Member for Environment and Transport	9 months (October 2026)
R08	Ensure all Cabinet reports for decisions relating to Net Zero projects and highway and transportation projects consider any leisure and tourism implications	Cabinet Member for Environment and Transport	6 months (July 2026)
R09	Present a report to the Sustainability and Transport Overview and Scrutiny Committee setting out how the Council has worked to date, and can work more in the future, with suppliers and contractors as part of its Birmingham Charter of Social Responsibility to deliver air quality improvements	Cabinet Member for Finance	24 months (January 2028)
R10	Ensure that the Council has resources in place to take carry out a full and timely options appraisal for the Clean Air Zone so that reductions achieved in air quality are maintained as a minimum; and further to this, to provide an annual update to the Sustainability and Transport Overview and Scrutiny Committee on the future plans for the Clean Air Zone.	Cabinet Member for Environment and Transport	6 months (July 2026) 12 months (January 2027)
R11	Co-sign a letter from the Sustainability and Transport Overview and Scrutiny Committee to the Government to lobby for investment to deliver: • Regional electrification of the rail network with a particular focus on the Snow Hill and Moor Street lines • The 2022 West Midlands Rail Investment strategy ambition to deliver Bordesley Chords including new stations at Balsall Heath and Castle Bromwich (Castle Vale ward) and the reopening of the Sutton Park Line • Electrification of buses • Acceleration of the planned metro works	Cabinet Member for Environment and Transport	1 month (February 2026)
R12	Review current policy commitments for access to natural greenspace as set out in the City of Nature Plan. Consider if the Council can strengthen its commitment to residents by aiming for all residents to have access to a nature- rich green space within a 10-minute walk of their home (and beyond Natural England's GI Standards – 'Green in 15').	Cabinet Member for Environment and Transport	6 months (July 2026)

Ref	Recommendations to Cabinet Members	Responsibility	Completion Date
R13	Ensure that the new Waste Strategy's options analysis considers: • A range of future options for waste disposal including alternatives to the current Energy Recovery Facility in Tyseley when the contract ends in 2034; and • The financial, health, economic and internal capacity cost benefits analysis for each short-listed option.	Cabinet Member for Environment and Transport	24 months (January 2028)
R14	Ensure the Sustainability and Transport Overview and Scrutiny Committee and Neighbourhoods Overview and Scrutiny Committee are able to input into and inform the development of the draft Waste Strategy. The Sustainability and Transport Overview and Scrutiny Committee will want to understand how the new strategy will: • Reflect the waste hierarchy; • Reduce the overall volume of waste produced and increase the proportion of waste recycled, and ensure less waste is incinerated; • Deliver a service to an increasing population whilst still reducing overall volume of waste and improvements in recycling levels; and • Achieve an overall reduction in the number of individual journeys carried out by the waste service.	Cabinet Member for Environment and Transport	24 months (January 2028)
R15	The Council investigates how to deliver projects more effectively and efficiently by: • Reshaping how it works collaboratively between delivery and enabling services to enable the timely progression of projects from conception to completion; • Reviewing whether best use is being made of funds such as the Clean Air Zone to address gaps in capacity; • Requesting a succession plan for programmes and schemes i.e. the School Crossing Warden Programme funded through limited funds such as the Clean Air Zone to mitigate against the risk of air quality improvements being lost.	Cabinet Member for Transformation, Governance and HR/ Cabinet Member for Environment and Transport/ Cabinet Member for Finance	6 months (July 2026) 6 months (July 2026) 12 months (January 2027)
R16	Provide a report to the Sustainability and Transport Overview and Scrutiny Committee on how the Council is ensuring all future design of highways and transportation schemes consider how to protect,	Deputy Leader/ Cabinet Member for Environment and Transport	6 months (July 2026)

Ref	Recommendations to Cabinet Members	Responsibility	Completion Date
	replace and increase canopy coverage, grass verges and sustainable drainage systems; and explore how existing Planning policy can be strengthened to require 30% canopy coverage in new developments including retention of existing trees and set a higher standard than the 10% biodiversity net gain requirement.		12 months (January 2027)
R17	Ensure the developing Clean Air Strategy sets out a clear action plan to deliver on its commitments including how it will be monitored and success measured.	Cabinet Member for Environment and Transport	12 months (January 2027)
R18	Council requests that the Executive reports on its progress on these recommendations to the Sustainability and Transport Overview and Scrutiny Committee every 6 months.	Cabinet Member for Environment and Transport	6 months (July 2026)

1 Introduction

1.1 Background

1.1.1 The Sustainability and Transport Overview and Scrutiny Committee decided to undertake an Inquiry into Air Quality on 31 July 2025. The Committee wanted to understand what the Council was currently doing to improve air quality in the city as well as inform the Council's future plans.

1.1.2 The agreed objectives for this Inquiry were[1]:

- To understand the rationale for the Clean Air Zone (CAZ) when it was first set up;
- To assess the effectiveness of the Clean Air Zone in improving Air Quality and identify future options, in particular considering best value as well as public health and environmental outcomes;
- To examine the Council's progress towards planning a waste incinerator-free future post 2034, and further to this, progress in the immediate future towards developing a plan to reduce carbon emissions from the current disposal unit;
- To explore how Air Quality data and insights can be better shared across the Council and with the public to inform decisions and thereby improve public health and environmental quality; and
- To review how Air Quality implications are being considered as part of Council decision making.

1.1.3 The key findings and recommendations from this Inquiry specifically contribute towards delivering upon the following Corporate Plan 2025-2028 mission 3: Safety and Sustainability – Birmingham is a safe, clean and green place to live. Specifically, it delivers upon the priority:

- Everyone benefits from reduced carbon emissions, cleaner air, and a greener city prepared for climate change.

1.1.4 The Inquiry Group was chaired by Councillor David Barker, Chair of the Sustainability and Transport Overview and Scrutiny Committee and comprised the committee members: Councillor Colin Green and Councillor Timothy Huxtable. Councillor Ziaul Islam and Councillor Richard Parkin, who are also Committee Members, attended at least one of the evidence gathering sessions each.

1.1.5 Although Councillor Waseem Zaffar is a committee member, he did not participate in the Inquiry Group as he had declared a relevant pecuniary interest. Councillor Zaffar

[1] Report: Work Programme 25-26, Sustainability and Transport Overview and Scrutiny Committee, 31 July 2025

was invited to provide evidence to the Inquiry as a Director at Midlands Community Solutions CIC and as an Advisory Board Member, West Midlands Net Zero, University of Birmingham.

1.1.6 The Inquiry Group want to also thank Councillor Martin Brooks; Councillor Barbara Dring; Councillor Jane Jones and Councillor Julian Pritchard who attended evidence gathering sessions and helped the Inquiry Group to reach its conclusions.

1.2 Evidence Gathering

1.2.1 Evidence gathering took place during October and November 2025. The activities were

- Informal session on 2 October 2025 – evidence was provided by Birmingham City Council and focused specifically on the Clean Air Zone (objectives 1 and 2). The witness at this session was Stephen Arnold, Head of Clean Air Zone, Birmingham City Council.

1.2.2 Informal session on 23 October – evidence was provided by Birmingham City Council and focused specifically on the Waste Incinerator at Tyseley (objective 3). The witnesses at this session were: Rob Edmondson, Assistant Director Waste; Peter Janes, Interim Commercial Project Accountant (PFI); Christopher Smiles, Transformation Lead Waste Management; Sally Burns, Director for Public Health and Sherrine Edwards, Service Lead (Built and Natural Environment).

- Committee meeting on 13 November – evidence was provided by Birmingham City Council and West Midlands Combined Authority. Councillor Waseem Zaffar also provided evidence as part of his roles as a Director at Midlands Community Solutions CIC; Advisory Board Member, West Midlands Net Zero, University of Birmingham, Birmingham Healthy Air Coalition and the Clean Air Justice Network. This session focused specifically on the Clean Air Strategy and how Air Quality data and insights is informing Council decision making (objectives 4 and 5). The witnesses at this session were: Stephen Arnold, Head of Clean Air Zone; Ellie Horwitch-Smith, Assistant Director Route to Zero Carbon; Brittany Huggins, Air Quality Monitoring Project Officer; Sally James, Head of Air Quality Policy; Jake Thrush, Associate Policy Advisor West Midlands Combined Authority; Mark Wolstencroft, Operations Manager Environmental Protection.

1.3 Key Definitions

1.3.1 **Air Quality Management Area (AQMA)** is a specific location designated by a local authority where air pollution levels exceed legal limits. The local authority must also

produce an Air Quality Action Plan (AQAP), which outlines how it intends to reduce levels of air pollution in the designated area. Actions can include improving public transport, controlling industrial emissions or establishing a CAZ.

1.3.2 **Clean Air Zone (CAZ)** is a designated area where actions are taken to improve air quality, primarily by reducing pollution from road traffic. A CAZ discourages high emission vehicles from entering the zone, either through charges or restricting access altogether. A class D CAZ, as implemented in Birmingham City Centre, applies to all vehicle types (including buses, taxis, heavy goods vehicles, vans and private cars but with the exception of motorcycles and powered two wheelers).

1.3.3 **Nitrogen oxides (nitrogen dioxide, NO_2, and nitric oxide, NO)**. Nitrogen oxides are gases emitted from high-temperature combustion processes. Nitrogen oxides can negatively impact human health, exacerbating asthma and other respiratory diseases. It also damages biodiversity by depositing reactive nitrogen into plants and soil.

1.3.4 **Particulate matter** is microscopic solid or liquid particles that can penetrate the lungs and bloodstream. Particulate matter is emitted from human activities, like burning fuels, vehicle braking and various industrial processes, as well as from natural sources like sea spray and dust. Particles under 10 micrometres in size are referred to as PM10, and particles under 2.5 micrometres in size are referred to as PM2.5 or fine particulate matter.

2 Air Quality – an Introduction

2.1 What is Air Quality and why is it important?

2.1.1 While carbon dioxide is primarily a climate change concern, pollutants like particulate matter and nitrogen dioxide directly impact local air quality and are harmful to human health.

2.1.2 Both particulate matter and nitrogen dioxide contribute to the health burden, but it is only NO_2 which has a legal limit that is deliverable by the Council (the PM2.5 limit is the responsibility of Government, although Local Authorities are expected to work towards and support achieving compliance). Further to this, the Environment Act 1995 creates a legal requirement for local authorities to 'from time to time cause a review to be conducted of the quality for the time being, and the likely future quality within the relevant period, of air within the authority's area'[2].

2.1.3 Poor air quality can affect anyone, but some people may face a higher risk of encountering or being impacted by pollution. People who live in areas of higher pollution, with existing heart or lung conditions, children and older adults may be most at risk[3]. The burden of disease attributable to air pollution is now estimated to be on a par with other major global health risks such as unhealthy diets and the smoking of tobacco[4]. Air pollution can contribute to cases of heart disease, stroke, chronic obstructive pulmonary disease, asthma, and cancers.

2.1.4 Research presented at the 2025 annual meeting of the European Society of Cardiology in Madrid (the world's largest heart conference) highlighted that people living in areas of the UK with the worst levels of air pollution are 27% more likely to develop heart failure, compared with people in areas with the cleanest air. The risk of a stroke is also increased by 7%[5].

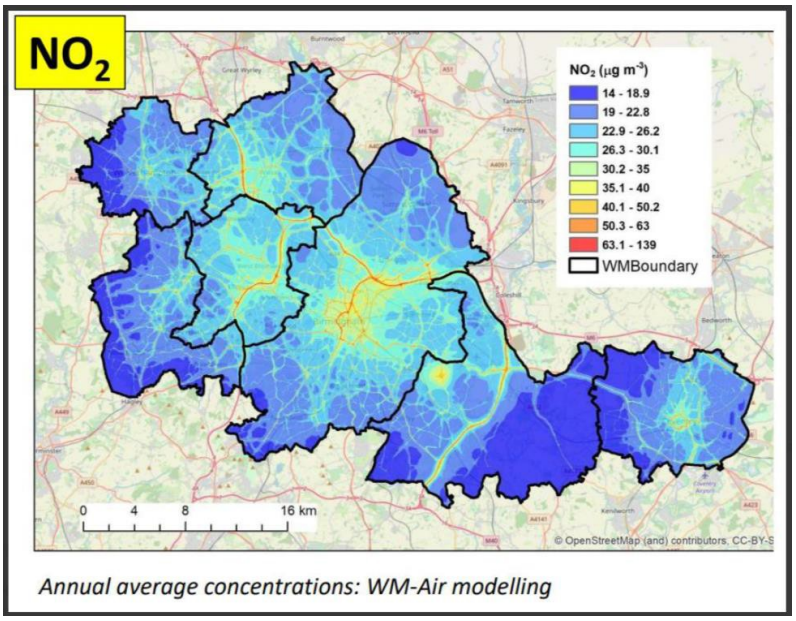
2.1.5 Increasingly, there is awareness that it is not only about addressing outdoor air quality but also about improving indoor air quality too. This could be caused by excessive moisture and poor ventilation as well as indoor wood burners.

---

[2] Environment Act 1995
[3] Poor air quality and pollution - Prepare
[4] WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide, 22 September 2021
[5] 'Living in most polluted areas increases risk of heart failure by a quarter': British Heart Foundation, 8 September 2025

West Midlands – Regional

2.1.6 The below map shows the annual average concentrations of NO2 across the West Midlands region[6]. This map highlights higher concentrations across the centre of Birmingham – east through to west.

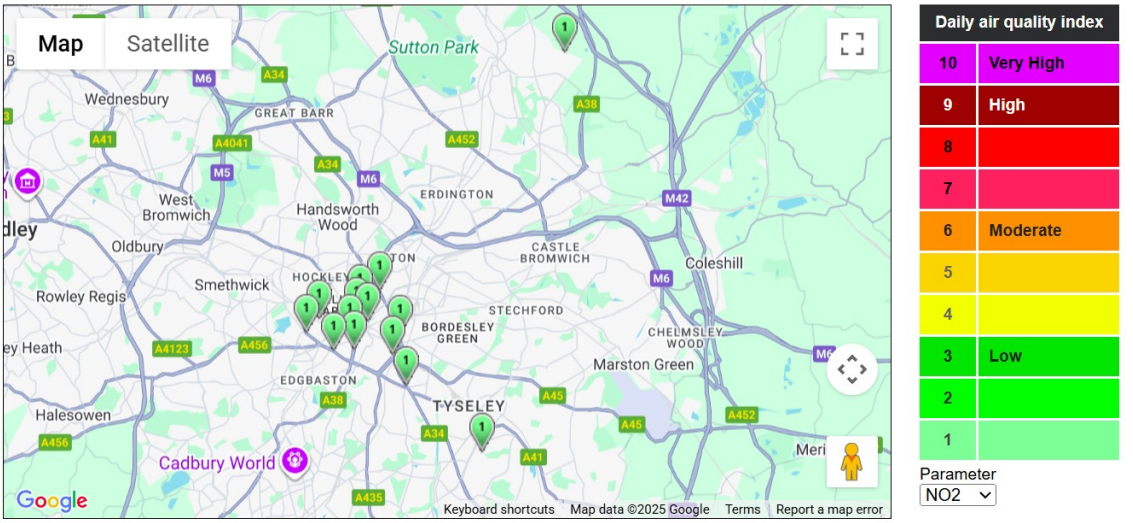


Annual average concentrations: WM-Air modelling

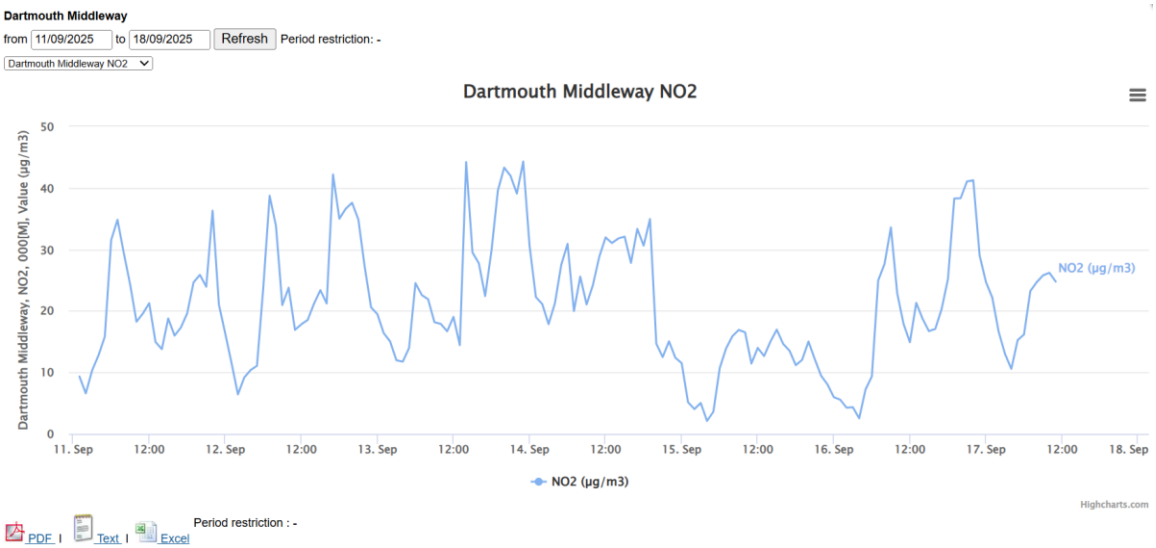
Birmingham – Local

2.1.7 The Council publishes data on air quality at https://www.birminghamairquality.co.uk (this link is also included on the Birmingham City Council website on its Air Pollution page. The map below highlights the location of air quality monitoring stations across the city, and their most recent measurements of NO2, PM2.5 and PM10; this is available on this site. The colours of the stations on the map indicate the level of pollution the station is currently experiencing based on the Air Quality Index.

[6] How can WMLTP5 help improve air quality and reduce impacts on the environment, Presentation by Transport for West Midlands to West Midlands Combined Authority Transport Delivery Overview and Scrutiny Committee, 26 November 2025.



2.1.8 Graphs that show the weekly change in readings can also be accessed on https://www.birminghamairquality.co.ukby clicking on the relevant station. An example graph for the station at Dartmouth Middleway is presented below[7].



2.1.9 The Brum Breathes webpage also provides data on the compliance rates for vehicles achieved in the Clean Air Zone. A live dashboard presents compliance rates for differing vehicle types over time.

[7] This was accessed on 17 December 2025.

Environmental Justice and Climate Risk and Vulnerability Assessment (CRVA)

2.1.10 Environmental justice is defined as: the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income, with respect to the development, implementation and enforcement of environmental laws, regulations and policies[8].

2.1.11 The Environmental Justice map sets out where the city compound issues are most felt. The red wards show those areas of the city where is there is the least environmental justice for citizens living there.

2.1.12 The Council has also developed a Climate Risk and Vulnerability Assessment (CRVA) to help the development of the city while also adapting to climate change. This CRVA will identify where the needs of Birmingham are greatest. The map scores areas of Birmingham based on the presence and extent of 11 factors that may influence the effect of climate change. These factors include concentration of nitrogen dioxide; concentration of fine particulate matter; excess years lost and indices of multiple deprivation[9].

2.2 Key Legislation and Strategies

Legislation

2.2.1 The European Union's legal framework for air quality is set out in the Ambient Air Quality Directive (Directive 2008/50/EC). Despite the UK having exited the European Union, these air quality standards have been retained in UK law and continue to apply to local authorities.

2.2.2 The directive outlines two main legal limits for Nitrogen Dioxide (NO_2): a short-term and long-term limit. The short-term limit pertains to hourly measurements and allows for occasional spikes in pollution levels up to 18 exceedances are allowed per year. The long-term limit pertains to the average concentration of NO_2 over an entire year. According to the directive, the annual average level of NO_2 must not exceed 40 µg/m³. This threshold is designed to reflect the level of exposure considered safe for the general population over time.

Limit Type and Period	Maximum Concentration µg/m³	Permitted Exceedances
Hourly Limit	200 µg/m³	18 times per year
Annual Mean Limit	40 µg/m³	None

[8] City of Nature Plan, May 2022

[9] Other factors include fluvial (river) flood risk; pluvial (surface) flood risk; surface temperature; local climate zone classification; deficit in open or other green space; deficit in tree canopy cover;

2.2.3 The directive also sets legally binding limits for particulate matter. The limits for particulate matter concentration are measured daily and annually and are outlined in the table below:

Pollutant	Limit Type and Period	Maximum Concentration µg/m³	Permitted Exceedances
PM10	Daily Mean Limit	50 µg/m³	35 times per year
PM10	Annual Mean Limit	40 µg/m³	None
PM2.5	Annual Mean Limit	25 µg/m³	None

2.2.4 If an area regularly exceeds any of these limits, local and national governments are legally required to produce and implement action plans to reduce pollution.

National Strategies

2.2.5 The Clean Air Strategy for England sets out the national framework for reducing air pollution across a range of sectors. The strategy identifies air pollution as the largest environmental risk to public health in the UK. The strategy addresses emissions from transport, industry, domestic sources, agriculture, and the waste sector.

2.2.6 The strategy includes a delivery framework that supports local authorities in addressing air quality issues in their areas. This was further developed in the 2023 Air Quality Strategy: Framework for Local Authority Delivery. The strategy outlines the expectation of local authorities to take a more active role in monitoring and improving air quality, with support from central government.

2.2.7 The Air Quality Strategy for England and the Environment Act 1995 establish that local authorities must regularly monitor air quality, and if pollutant levels exceed national objectives, they must designate the area as an Air Quality Management Area (AQMA). A corresponding Air Quality Action Plan (AQAP) must also be developed, which outlines measures and timelines for improvements.

Regional Strategies

2.2.8 The West Midlands Combined Authority Air Quality Framework and its implementation plan (published 2023) considers a broad range of options to address air pollution in the region, in addition to the work already delivered through the DEFRA air quality grant. Actions within this plan have been prioritised based on health impacts, costs, feasibility, and co-benefits. This includes delivery of a regional air quality sensor

network, behaviour change projects, and wider community engagement. The implementation plan is set to be reviewed next year, and this review will be done collectively with all relevant stakeholders.

2.2.9 The West Midlands framework is based on the following:

- NO2 emissions are predominantly from road traffic so options with the greatest potential to reduce NO2 concentrations are found in the transport as well as the engagement and behaviour change categories of the framework.
- PM2.5 is emitted from a much broader range of sources so actions to address PM2.5 concentrations should consider more sectors than transport including, but not limited to, options from the domestic emissions and indoor air quality, commercial, industrial and agriculture and engagement and behaviour change categories of the framework.

Birmingham Strategies

2.2.10 On 11 June 2019, the Council declared a climate emergency, recognising that climate change is an existential threat to our current way of life, and we must make a commitment to act against it[10]. As part of this, the Council set a target for the council and city to become net zero carbon by 2030, or as soon as possible thereafter as a just transition allows.

2.2.11 The Council publishes an Annual Status Report on air quality. The 2025 Annual Status Report details the following measures as key priorities for Birmingham City Council:

- To continue with the operation and monitoring of the CAZ and to develop proposals to deliver compliance at all locations.
- Develop a new Air Quality Action Plan (AQAP) with a focus on delivering compliance with the annual mean air quality objective for NO2 in the city centre area.
- To complete the revision of the Clean Air Strategy.
- To consult on a new Smoke Control Order to bring moored vessels into scope, with the intention of making the Order later in 2025[11].
- To begin the deployment of sensors in Phase 2 of the Air Quality in Schools programme.

[10] The climate emergency declaration | What is the council doing about climate change | Birmingham City Council
[11] This order is scheduled to be operational in March 2026.

- To develop policies and procedures for reducing emissions from construction, initially focusing on the city centre area.

2.2.12 Birmingham City Council's Clean Air Strategy outlines 6 council pledges to improve air quality across the city:

- **Pledge One: Collaboration**

  Birmingham City Council pledge to work with regional bodies, businesses, and the public to implement better cycling infrastructure, low traffic schemes, and public transport improvements.

- **Pledge Two: Clean Air for Schools**

  Birmingham City Council pledge to reduce pollution around schools by promoting active travel and educating students through programmes like Clean Air Cops.

- **Pledge Three: Inclusivity and Protecting the Vulnerable**

  Poor air quality disproportionately affects vulnerable groups. Efforts will therefore focus on identifying pollution hotspots and engaging residents in decisions to reduce health inequalities.

- **Pledge Four: Planning for the Future**

  This pledge aims to embed clean air considerations into city planning. Birmingham City Council will prioritise sustainable transport and ensure new developments support healthier living.

- **Pledge Five: Clean Air Zone (CAZ)**

  Financial support will be given to help residents and businesses transition to cleaner transport options. Revenue from the CAZ will be reinvested into wider clean air initiatives.

- **Pledge Six: Measuring Progress**

  Birmingham City Council will maintain and expand its air quality network, sharing data publicly in accessible formats.

2.2.13 Clean Air and improvements in Air Quality also relates to the Birmingham City of Nature Plan, which was approved in 2022[12]. Specifically, through its outcome:

- A Green City – Net Zero ambitions are fulfilled, with sustainable, inclusive, safe, and resilient development.
- A Healthy City – Encouraging active movement, easy access to nature, and fostering community gardening, with a goal of at least one community garden in every ward.
- A Fair City – Improving equal access to green spaces through the Birmingham Future Park Standard and equipping citizens with skills for future green jobs.
- An Involved City – Empowering Green Champions, educating children about nature, and fostering community ownership of green spaces through nature focused activities.
- A Valued City – Implementing a sustainable finance framework and a circular economy model to ensure long term funding for the City's blue and green spaces while highlighting their benefits.

2.2.14 Appendix A sets out further information on legislation and strategies.

[12] Birmingham's City of Nature Plan | Birmingham's City of Nature plan | Birmingham City Council, accessed 17 December 2025

3 Evidence and Key Findings

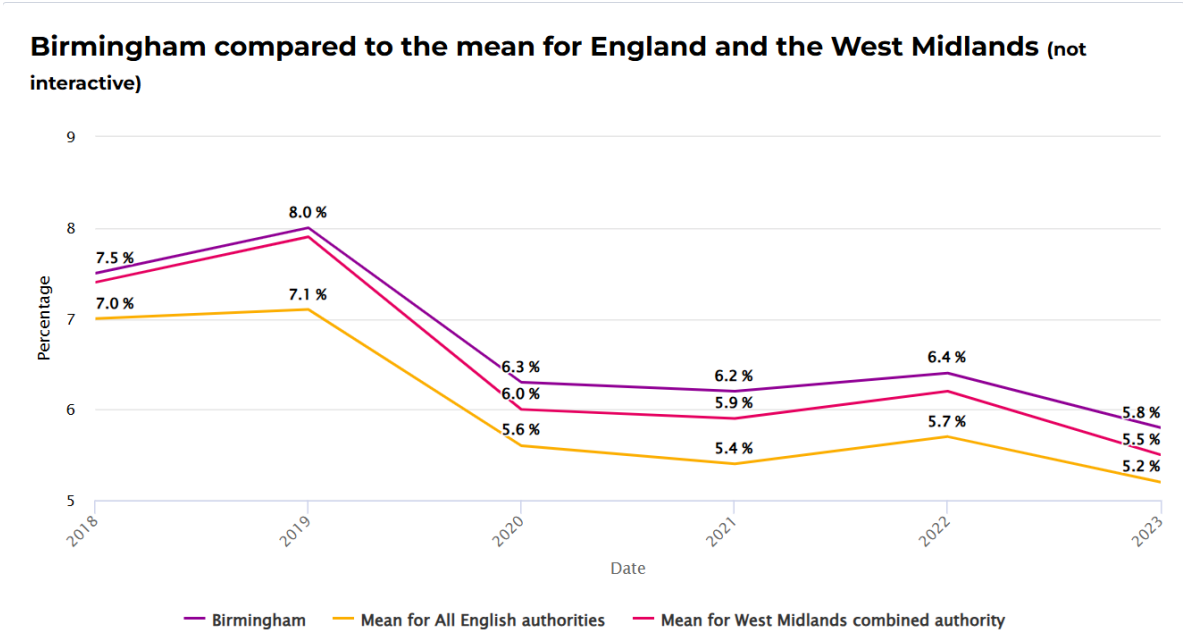
3.1 Air Quality and Health

3.1.1 Birmingham has had some of the highest levels of nitrogen dioxide (NO_2) exceedances outside of London and it has been estimated that poor air quality contributes to c.720 premature deaths in the city each year, equivalent to 7900 lost years of life among the city population. Air pollution also contributes to circa 900 new asthma cases among children and adults [13].

3.1.2 The highest proportion of disease cases and early deaths attributable to air pollution are distributed within 40 wards clustered around the City Centre[14].

3.1.3 Air pollution is estimated to have contributed to 5.8% of deaths in Birmingham in 2023This is down from 6.4% the previous year and 8% in 2019. This is slightly higher than the West Midlands average (5.5% in 2023) and higher than the national average (5.2% in 2023)[15]. The graph overleaf presents the percentage of mortality partly attributable to particulate air pollution in Birmingham, the West Midlands conurbation and across England from 2018-2023[16].

[13] Health Impacts of Air Pollution in Birmingham, 2022 WM-Air Project, University of Birmingham, June 2023(download date 17 December 2025)
[14] Health Impacts of Air Pollution in Birmingham, 2022 WM-Air Project, University of Birmingham, June 2023 (download date 17 December 2025)
[15] Fraction of mortality attributable to particulate air pollution (new method) – WMCA, downloaded from Birmingham City Council City Observatory, 17 December 2025.
[16] Fraction of mortality attributable to particulate air pollution (new method) – WMCA, downloaded from Birmingham City Council City Observatory, 17 December 2025.



3.1.4 The table below sets out the wards with the highest and lowest numbers of early deaths attributable to air pollution[17].

10 wards with highest % mortality attributable to air pollution (2019)			10 wards with lowest % mortality attributable to air pollution (2019)		
No.	**Ward**	**Mortality %**	**No.**	**Ward**	**Mortality %**
1	Tyseley & Hay Mills	8.5	1	Rubery & Rednal	6.7
2	Holyhead	8.4	2	Frankley Great Park	6.8
3	Aston	8.4	3	Kings Norton South	6.9
4	Gravelly Hill	8.4	4	Sutton Mere Green	6.9
5	Alum Rock	8.4	5	Longbridge & West Heath	6.9
6	Newtown	8.3	6	Sutton Roughley	7.0
7	Small Heath	8.3	7	Bartley Green	7.0
8	Kingstanding	8.3	8	Sutton Four Oaks	7.0
9	Nechells	8.3	9	Sutton Reddicap	7.1
10	Stockland Green	8.3	10	Sutton Walmley & Minworth	7.1

[17] Health Impacts of Air Pollution in Birmingham, 2022 WM-Air Project, University of Birmingham, June 2023 (download date 17 December 2025)

3.1.5 The Inquiry was reminded to recognise the social injustice of the impact of air pollution[18]. Research indicates that neighbourhoods in England and Wales with higher concentrations of NO2 have a strong correlation with the percentage of households in poverty and area deprivation[19]. Furthermore, these neighbourhoods also experience greater health inequalities. These neighbourhoods are often more densely populated and located by major arterial routes.

3.1.6 The Inquiry Group understood that cleaner air would provide physical and health benefits, particularly in the most deprived neighbourhoods in Birmingham. At this time, the Inquiry noted that there have been gaps in how these impacts have been captured to date in related projects and schemes such as the Clean Air Zone. There was also no information captured into potential impacts on cohesion and social isolation. The Inquiry Group felt that this was important information for decision makers to consider when making future decisions.

3.1.7 The Inquiry was advised that working with communities to build and sustain support for air quality initiatives is essential. These activities need to be delivered in an inclusive way and at a greater scale reaching beyond the usual suspects and working through trusted networks[20].

3.1.8 The Inquiry Group questioned whether the current Clean Air targets set out in legislation need to be strengthened to make a more significant contribution towards reducing health inequalities. The Head of the Clean Air Zone advised that the World Health Organisation targets reflect the level of naturally occurring Nitrogen Dioxide and as such, this may not be a realistic and achievable target to set[21].

3.1.9 The Inquiry Group learned how indoor air quality has been an emerging area of work in recent years and it can impact on people's health. The Assistant Director for Route to Carbon Zero explained the challenges in improving air quality in homes and maintaining this. For example, retrofit measures such as insultation may impact negatively on air flow and ventilation. There are no Council measures monitoring indoor air quality[22].

3.1.10 When reviewing their evidence, the Inquiry Group felt that the lack of discussion about wood burners in domestic properties and their potential impact on air quality in people's

---

[18] Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025.
[19] Deprivation based inequality in NO2 emissions in England, Environmental Science: Advances (Journal), 2023 (Nathan R. Gray; Alistair C. Lewis and Sarah J. Moller,
[20] Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025.
[21] Evidence Gathering session 1: 2 October 2025
[22] Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025.

homes had been a gap. The Inquiry Group agreed that the Committee should do more work to understand what the Council is doing and how it could do potentially do more[23].

3.1.11 In January of 2022, Birmingham City Council initiated phase 1 of the Schools' Sensor Project, installing air quality monitors at 69 schools across the city. Phase 2 is seeking to install additional monitors to extend the project more schools in Birmingham (131 schools in total). Data obtained can feed into lesson plans and educational resources. The data is also publicly available to enable greater awareness of air quality in real-time. However, it was noted that more work is required to measure the impact of this scheme on air quality to provide a before and after picture[24].

3.1.12 The Inquiry also acknowledged how other activities could contribute towards reducing air pollution around schools including schemes which promote active travel (such as the Safer Streets programme) and anti-idling campaigns[25]. Information on how these schemes impact on air quality would be very helpful to encourage future activity.

3.1.13 The Council's Public Health team advised that the service had recently commenced a deep dive into Air Quality as part of its Joint Strategic Needs Assessment (JSNA). This is the first time Public Health has commissioned work to understand air quality and health inequalities in Birmingham. A similar deep dive took place in West Northamptonshire Council in 2024. This deep dive will focus on both indoor and outdoor air quality. It will consider health data such as respiratory illness levels and related hospital admissions. The service anticipates that the deep dive will be completed by June 2026[26]. Separate to this Inquiry, the Director for Public Health proposed a briefing session in December to set out this work in more detail to the Sustainability and Transport Overview and Scrutiny Committee[27].

3.1.14 Examples of collaborative working to address air quality and its impacts between the Council, NHS and other partners were shared[28]. This included:

- A Healthy Homes Board had been established to integrate housing, energy efficiency and health outcomes. The Council's City Housing directorate; Place Prosperity and Sustainability directorate (specifically, Net Zero service) and the

[23] Further to this, the Inquiry Group recalled a previous Council debate where public concerns about the impact of biomass was highlighted. The Inquiry Group are also aware that the issue of wood burners is being explored at a national level through Government too.
[24] Evidence Gathering session 1: 2 October 2025 and Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025
[25] For example, London borough of Merton.
[26] Evidence Gathering session 2: 23 October 2025 Needs reference – session 2
[27] The Sustainability and Transport Overview and Scrutiny Committee is planning this session will take place in early 2026.
[28] Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025. Other examples provided separately to the evidence gathering include the City of Nature, the Urban Forest Master Plan Process and the EU Horizons Projects.

Public Health service were all part of this Board. As a result, this enabled these services to join up their activity.

- A pilot project has been set up with Birmingham Women's and Children's NHS Foundation Trust to refer at risk patients for respiratory illnesses for targeted works at their homes to reduce future risks. It was too early to report findings from this pilot.
- A new West Midlands Air Quality Alert system launched on 16 December 2025.
- Asthma Friendly Schools - NHS Trusts have worked with schools to support pupils with asthma.

Key Finding 1: Birmingham's current clean air metrics are in line with targets and measures set by the Government. The Council should consider if it could be more ambitious and set more challenging targets which research indicates could deliver better health outcomes.

Key Finding 2: Localised health data is needed to ensure the right interventions are delivered in the right locations. The Council is currently working on a deep dive into air quality as part of its Joint Strategic Needs Assessment. Data is being analysed on the impacts of poor air quality including increased incidences of respiratory illness, as well as benefits of better air quality such as increased physical activity and reduced absenteeism.

Key Finding 3: The Council has a strong collaborative relationship with the NHS Hospital Trusts. Key partners working effectively together will be critical to making a real impact. This should provide a foundation for evidence-based interventions identified from the deep dive into air quality.

Key Finding 4: There has been limited tracking of the impact on physical health, mental health, social cohesion and social isolation when delivering projects which could improve air quality.

Key Finding 5: Active travel supports reducing air pollution through encouraging fewer car journeys. The school streets programme encourages more children to take active travel routes to school. Understanding the air quality impacts from this programme, including particulate matter and Nitrogen Oxide is important.

Key Finding 6: The Inquiry did not explore information about wood burners. The Inquiry has been made aware subsequently of work being undertaken by the Council and the University of Birmingham. The Inquiry identified this as an area to explore further in the future.

Ref	Recommendations	Responsibility	Completion Date
R01	Carry out a review to adopt targets which go beyond the legal limits for nitrogen oxide and particulate matter to enable Birmingham to better tackle health inequalities related to air quality.	Cabinet Member for Environment and Transport	9 months (October 2026)
R02	Co-sign a letter from the Sustainability and Transport Overview and Scrutiny Committee to the Government to lobby for legislation with stronger Clean Air targets that are at least as strong as the proposals from campaign such as Asthma and Lung UK.	Cabinet Member for Environment and Transport	1 month (February 2026)
R03	Present a report to the Sustainability and Transport Overview and Scrutiny Committee and Health and Adult Social Care Overview and Scrutiny Committees to consider the key findings from the Joint Strategic Needs Assessment (JSNA) deep dive into air quality and make recommendations to the Executive based on the findings	Cabinet Member for Health and Social Care/ Cabinet Member for Environment and Transport	9 months (October 2026)
R04	Establish an outcomes focused air quality working group with NHS partners, and other key stakeholders, including the Healthy Homes Board to: • Produce an action plan addressing both indoor and outdoor air quality and including timescales and measures of success; • Inform development of proposed air quality health interventions, in particular, interventions delivered in partnership; • Publish an annual report measuring health impacts and benefits.	Cabinet Member for Health and Social Care/ Cabinet Member for Environment and Transport	9 months (October 2026) 12 months (January 2027) 12 months (January 2027)

Ref	Recommendations	Responsibility	Completion Date
R05	Ensure all Cabinet reports for decisions relating to Clean Air Zone (CAZ) funding and Net Zero projects include health and mental health implications	Cabinet Member for Environment and Transport	6 months (July 2026)
R06	Present a report to the Sustainability and Transport Overview and Scrutiny Committee setting out the combined health impact of programmes located around schools targeting air quality including the Schools Street programme and anti-idling projects and also set out what further interventions are needed.	Cabinet Member for Environment and Transport/ Cabinet Member for Health and Social Care	9 months (October 2026)
R07	Present a report to the Sustainability and Transport Overview and Scrutiny Committee reviewing what the Council understands about wood burners (including both domestic and commercial) and their impact on air quality in Birmingham, what action it is currently taking and what opportunities for further action exist.	Cabinet Member for Environment and Transport	9 months (October 2026)

3.2 Air Quality and the Economy

3.2.1 The Clean Air Fund (UK) commissioned CBI Economics to produce a Breathing Life into the UK economy report series. This included a bespoke report – Breathing Life into Birmingham which was published in April 2021[29].

3.2.2 This analysis quantified potential gains to the health of Birmingham's workforce, and to the local economy, that could be achieved through a reduction in nitrogen dioxide (NO2) levels via a Clean Air Zone (CAZ). The report advised that a small reduction in NO2 of 5µg/m3 (16%) could prevent 50 deaths and save 150 days spent in Birmingham's hospitals due to respiratory conditions each year. Moreover, adding 216,000 working hours each year through increased workforce participation could provide an economic boost of more than £2.7m in Gross Value Added (GVA)[30].

[29] Breathing Life into Birmingham, Report by CBI Economics and commissioned by Clean Air Fund (UK), April 2021
[30] Breathing Life into Birmingham, Report by CBI Economics and commissioned by Clean Air Fund (UK), April 2021, page 2

3.2.3 The Inquiry Group was concerned that there appears to be no consideration of the impact of air quality measures on leisure and tourism. The Inquiry Group felt that better air quality would deliver encourage more people to get involved with leisure activities in their local area and visit the city. Broader interventions which improve walkability and make green spaces more attractive would also contribute to better air quality as well as encourage leisure and tourism. However, the Inquiry Group recognised that investment in green and blue infrastructure takes time to mature. Officers advised that the city participates in the Global Destination Sustainability (GDS) Index which measures, benchmarks and improves the sustainability strategy and performance of tourism and events destinations. As part of this, it considers air pollution levels.

3.2.4 After reviewing their evidence, the Inquiry Group felt that they could have explored how the Council can harness opportunities through its contracts and supply chains to encourage and support businesses to take their own steps to improve air quality.

Key Finding 7: Green and blue infrastructure may not deliver dividends as quickly as grey infrastructure[31]. However, improved walkability, better air quality, and attractive greenspace provide benefits to leisure and tourism.

Key Finding 8: There was no information considered on how the Council is working with businesses to encourage and support businesses to improve air quality as part of their commercial arrangements.

Ref	Recommendations	Responsibility	Completion Date
R08	Ensure all Cabinet reports for decisions relating to Net Zero projects and highway and transportation projects consider any leisure and tourism implications	Cabinet Member for Environment and Transport	6 months (July 2026)
R09	Present a report to the Sustainability and Transport Overview and Scrutiny Committee setting out how the Council has worked to date, and can work more in the future, with suppliers and contractors as part of its Birmingham Charter of Social Responsibility to deliver air quality improvements	Cabinet Member for Finance	24 months (January 2028)

[31] Blue infrastructure: integration of natural water bodies and ecosystems into urban planning and design; Green infrastructure: encompasses features such as parks and gardens; Grey infrastructure: encompasses a wide range of built structures.

3.3 Air Quality and Transport

Clean Air Zone

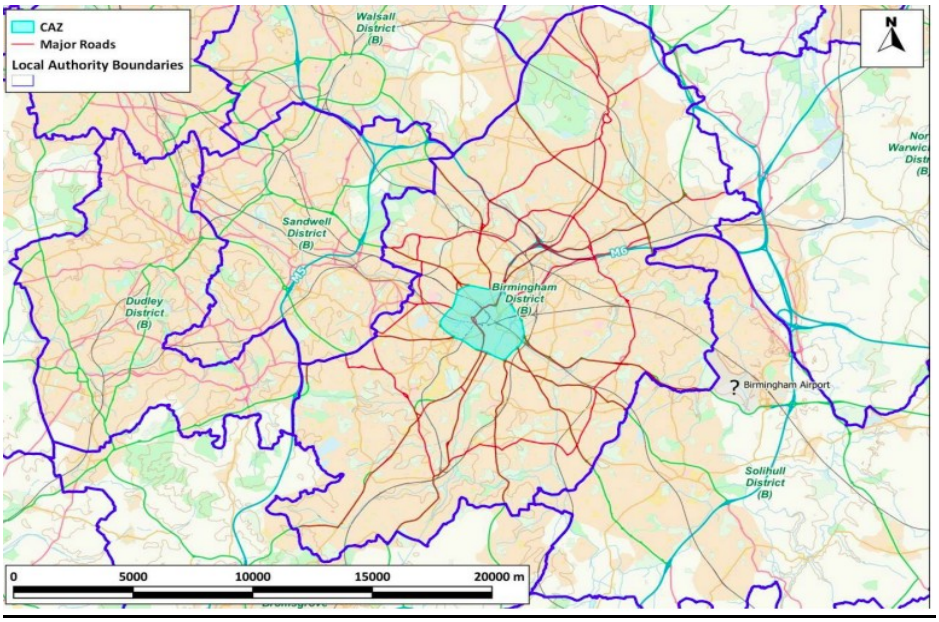
3.3.1 Road transport is recognised as being the key contributor to NO_2 levels in Birmingham (as well as adding to other air quality pollutants such as particulate matter). As such, Birmingham's Air Quality Action Plan identifies the CAZ as the most effective way to improve air quality in the shortest possible time and ensure compliance with the EU Air Quality Directive and Clean Air Strategy for England.

3.3.2 In 2017, the UK government issued a Ministerial Direction to Birmingham City Council, and four other local authorities, to reduce nitrogen dioxide (NO_2) levels in the air to the legal limit of a maximum annual average of 40µg/m3. Cabinet agreed to proceed with the creation of a Class D Clean Air Zone (CAZ) in the City Centre in December 2018[32]. The scheme costs were funded through a central government grant. This included a fund to cover set up costs. It also included funds to deliver mitigation measures to reduce the impact of the CAZ on the most significantly affected socio-economic groups.

3.3.3 The map below, included in the Air Quality Action Plan, presents the area coverage of the Clean Air Zone (shaded zone). The CAZ covers all roads within the A4540 Middleway Ring Road (but not the Middleway itself)[33].

[32] There are only two Class D Clean Air Zones in England, Birmingham and Bristol. In a Class D CAZ, all vehicles are affected rather than specific vehicle types as in other classes of CAZ.

[33] The CAZ was implemented on 1 June 2021. Entry into the CAZ costs £8 per day for non-compliant vehicles and £50 per day for heavy goods vehicles. A £120 penalty charge is applied to individuals who have not paid the charge, reduced to £60 if paid within 14 days.



3.3.4 The latest monitoring data indicates that the Clean Air Zone has delivered substantial and sustained improvements in air quality across the city centre. Since its implementation, the CAZ has contributed to a notable decline in Nitrogen Dioxide (NO_2). By 2023, average levels of NO_2 within the CAZ had reduced by 15.5% from 2019, and 33.3% compared to the 2016 baseline. The number of monitoring locations within the CAZ exceeding the legal annual mean limit for NO_2 also decreased from 29 in 2016 to 10 in 2023. This reduction was observed despite a significant increase in the number of monitoring locations used, increasing from 60 sites in 2016 to 194 in 2023.

3.3.5 Data collected from the Clean Air Zone's Automatic Number Plate Recognition cameras records the number of high polluting vehicles entering the CAZ. The number of non-compliant, high polluting vehicles, entering the CAZ has significantly reduced from 15.2% at the scheme's launch in June 2021 to just 4.6% of all vehicles in June 2024. This trend suggests that the CAZ is successfully deterring the use of high polluting vehicles and encouraging more environmentally friendly alternatives.

3.3.6 Despite the overall positive trend, Moor Street Queensway continues to record NO_2 concentrations above the legal limit.

3.3.7 The Head of the Clean Air Zone advised that the CAZ is on track to meet the compliance level target within the next few years. Once this target has been reached, the CAZ will need to demonstrate it can sustain this level of compliance for a further 12 months. From this point, the Council will then need to decide on its next steps. As

part of this, the Council will need to consider air quality targets, performance and the citywide plan to improve air quality[34].

3.3.8 When the Council can demonstrate sustained change, it can remove the CAZ. This is in line with the Clean Air Zone Framework for England which states that 'where air quality has improved to the level required and there is evidence that this improvement would be maintained, the Government expects local authorities to consider whether to remove the elements of the zone that are no longer required at the earliest opportunity'.

3.3.9 The Council could also decide to continue with the CAZ. However, central Government provides critical support to delivering parts of the CAZ which may no longer be available, and therefore, continuing with the CAZ would present practical challenges. For example, the Government provide the online vehicle compliance checker and the payment platform. At the moment, there have been no decisions taken to either retain or remove the CAZ. No options appraisal has been commissioned. It is important to note that, to date, no Council has removed a Clean Air Zone[35]. The Council has not explored the feasibility of a congestion zone[36].

3.3.10 The Inquiry Group suggests that any future options appraisal for the CAZ needs to benchmark the performance of other core cities in improving air quality against Birmingham. These cities may (or may not) have introduced Clean Air Zones. Specific examples are set out below including the approaches the different areas agreed:

- **Bristol City Council** – operates the only other Class D Clean Air Zone in England. The CAZ was implemented in November 2022.
- **Leeds City Council** - initially proposed a Class B Clean Air Zone. However, following a joint review with central government, the council announced in October 2020 that the CAZ would no longer be implemented. Monitoring stations had presented air pollution levels to have already fallen below legal limits. Funding was then diverted to the retrofitting and upgrading of vehicles used in the city. In addition to fleet-focused interventions, there was also investment in new cycling infrastructure and new signalling equipment to reduce congestion.
- **Greater Manchester** – initially proposed and prepared for a CAZ initiative (Class C zone) to reduce levels of NO2 and meet government compliance requirements. However, in January 2025, the UK Government gave backing to an alternative investment-led approach. Regional investment will instead be directed to:

[34] Evidence Gathering session 1: 2 October 2025
[35] Evidence Gathering session 1: 2 October 2025
[36] Evidence Gathering session 1: 2 October 2025

- £51 million for bus fleet upgrades, comprising of zero-emission buses and Euro VI standard buses.
- £8 million to support taxi fleet upgrades to cleaner vehicles.

  £5 million for improved local traffic management technology in Manchester and Salford.

3.3.11 The CAZ was set up to improve air quality. At the end of March 2025, it had generated £149.9m from daily charges for non-compliant vehicles and penalty charges for missed payments since it became operational in 2021[37]. These funds are ringfenced in accordance with Part 3 of the Transport Act 2000, and in addition to maintaining the zone itself, funds must be reinvested into local transport and environmental initiatives. In Birmingham, funds have been invested in local travel infrastructure improvements including the redevelopment and future opening of the Camp Hill rail line and the redevelopment of the University Station, Edgbaston as well as projects such as the school crossing patrols service[38]. The Inquiry Group raised concerns about how these types of investments and programmes will be funded in the event that the CAZ ends and demand for these services or investment remains.

Bus Network

3.3.12 Moor Street Queensway has continued to experience exceedances of the legal limits of Nitrogen Dioxide. It is dominated by high volumes of bus traffic and it is the location of the busiest bus interchange in the region[39]. The data from the Council's traffic study in the Moor Street area indicates that there are a high volume of older buses operating in the area so while they are (and remain) compliant', the retrofit technologies fitted to these buses may not be performing effectively. Other contributory factors to increased levels of pollutants at this location could include: a steep road increasing the need to accelerate and brake; buses idling; diesel trains operating from the Moor Street Station and nearby construction works at Birmingham Curzon Street Station and HS2[40].

3.3.13 The Head of the Clean Air Zone advised that a transition to zero emission buses is key to achieving compliance in the Moor Street area. The Clean Air Zone team are working closely with Transport for West Midlands (TfWM) to identify ways of accelerating the adoption of zero emission buses operating in this area[41]. Members of the Inquiry Group raised concerns that central government funding to purchase zero emission buses had

[37] Updated position provided by Head of Clean Air Zone on 5 January 2026.
[38] Evidence Gathering session 1: 2 October 2025
[39] The interchange has over 60million visits per year.
[40] Evidence Gathering session 1: 2 October 2025
[41] Evidence Gathering session 1: 2 October 2025

been returned from the region[42]. The Inquiry Group were also concerned, if diesel buses were restricted from accessing part of this area, these buses would be rotated to other neighbourhoods and impact on air quality there.

3.3.14 The Inquiry Group highlighted examples of buses idling outside schools across the city, which could have health implications for children. There was a question whether awareness campaigns targeted at bus drivers could be funded through CAZ funding.

Rail Network

3.3.15 While a high proportion of Nitrogen Dioxide is as a result of vehicle emissions, rail is also a contributor. The rail industry has its own air quality monitoring standards.

3.3.16 Air quality levels are monitored on train station platforms as part of the Rail Safety and Standards Board (RSSB) Air Quality Monitoring Network (AQMN). This is project instructed and funded by the Department for Transport. 14 diffusion tubes, two low-cost sensors and one reference monitoring station are deployed at Birmingham New Street, which are located at different sites around the station. The first report setting out pollutant concentrations and trends within the station from 2022 and 2023 from this network is scheduled to be published in 2026[43]. The RSSB advise that the current pollutant concentrations are of a similar order of magnitude as the data from previous air quality studies at Birmingham New Street[44].

3.3.17 The Council had been in contact with New Street Station to discuss how to discourage idling by trains on platforms[45]. The RSSB have carried out research which indicates that the idling of diesel trains does have an impact on air quality at platforms. As such, the RSSB have developed a Good Practice Guide Reducing Emissions from Idling Diesel Trains. The RSSB do not have data on the portion of pollution that attributable to idling (and idling which could potentially be avoided)[46].

3.3.18 The Inquiry Group considered that electrification of the network would make a significant step to reducing future emissions. There are a higher proportion of diesel trains operating on the Snow Hill and Moor Street line compared to through

[42] Report: Transport Operations (paragraph 2.24-2.25), West Midlands Combined Authority Board, 14 November 2025 sets out the latest position from the WMCA in relation to this funding.
[43] Information provided by Rail Safety and Standards Board (RSSB) on 11 December 2025. This equipment measures both nitrogen dioxide and particulate matters.
[44] University of Birmingham has previously carried out air quality studies at Birmingham New Street, for example, Hickman et al Evaluation air quality Journal Rail Rapid Transit.pdf, or alternatively, Intervention of an Upgraded Ventilation System and Effects of the COVID-19 Lockdown on Air Quality at Birmingham New Street Railway Station and Proposed interventions to reduce noxious air pollution at Birmingham New Street station | Proceedings of the Institution of Civil Engineers - Transport | Emerald Publishing
[45] Evidence Gathering session 1: 2 October 2025
[46] Information provided by Rail Safety and Standards Board (RSSB) on 11 December 2025.

Birmingham New Street. Snow Hill and Moor Street stations are also less enclosed stations[47].

3.3.19 Government funding for the Midlands Rail Hub was announced in October 2023 (Network North) and reconfirmed in July 2025[48]. Midlands Rail Hub will increase central Birmingham rail capacity and is a scheme which is required before future proposed new stations and services can be achieved, over and above stations due to open in 2026. The scope of works set out in the Full Business Case (which is now being produced) includes:

- Extra platforms at Birmingham Snow Hill (Platform 4) and Moor Street (Platforms 5, A & B)

3.3.20 Bordesley Chords, East and West, and Viaduct Widening

- Kings Norton to Barnt Green: 4-tracking, electrification of fast lines and additional Kings Norton platforms

3.3.21 In 2023 TfWM and the West Midlands Rail Executive performed an initial feasibility study of a long list of 15 potential new stations, This study was funded through the City Region Sustainable Transport Programme, Of the 15 potential stations in the long list, five stations were identified as having the strongest case for further development. These included Balsall Heath and Castle Bromwich (Castle Vale ward). The assessment identified that:

3.3.22 Balsall Heath on the Camp Hill line would require construction of the Bordesley Chords and extra capacity at Moor Street Station as currently proposed by the Midlands Rail Hub project

- Castle Bromwich would also benefit from the greater capacity into central Birmingham provided by Midlands Rail Hub

3.3.23 A new station at Castle Bromwich and the reopening of the Sutton Park line were included in the resolution agreed by Council on 4 November 2025.

Other

3.3.24 The Waste Service advised how the Council is delivering a waste fleet transformation programme. This will enable the Council fleet to reduce its emissions. 151 vehicles

[47] Evidence Gathering session 1: 2 October 2025

[48] https://www.gov.uk/government/news/work-to-deliver-midlands-rail-hub-set-to-begin-with-123-million, Published 29 February 2024

are being replaced, and 51 upgraded to hybrid/ electric[49]. For the remainder of the council fleet, 11.3% of vehicles are not CAZ compliant[50].

Key Finding 9: The Clean Air Zone is likely to reach the agreed compliance levels within the next few years and have sustained this level of compliance for a set time too. If the Council decides to continue the Zone beyond the point of compliance, it may have to address practical challenges as these are delivered through Government support. If the Clean Air Zone is discontinued, the Council will need to consider how it will achieve Clean Air targets from this point.

Key Finding 10: Diesel trains regularly pass through Birmingham. Research from the Rail Safety and Standards Board (Air Quality Monitoring for the Rail Industry) states that emissions from diesel trains harm the health of those living near stations and lines.

Key Finding 11: Birmingham continues to lack sufficient public transport links to reduce car journeys and congestion, and through this, improve air quality. Significant investment into public transport infrastructure remains a priority. National and regional funding has been used for investment to date. This has included reopening stations or investigating opening new stations.

[49] Evidence Gathering session 1: 23 October 2025

[50] This information was captured from 2024. Information on the current position is currently being verified and so, may be different.

Ref	Recommendations	Responsibility	Completion Date
R10	Ensure that the Council has resources in place to take carry out a full and timely options appraisal for the Clean Air Zone so that reductions achieved in air quality are maintained as a minimum. Further to this, to provide an annual update to the Sustainability and Transport Overview and Scrutiny Committee on the future plans for the Clean Air Zone.	Cabinet Member for Environment and Transport	6 months (July 2026) 12 months (January 2027)
R11	Co-sign a letter from the Sustainability and Transport Overview and Scrutiny Committee to the Government to lobby for investment to deliver: • Regional electrification of the rail network with a particular focus on the Snow Hill and Moor Street lines • The 2022 West Midlands Rail Investment strategy ambition to deliver Bordesley Chords including new stations at Balsall Heath and Castle Bromwich (Castle Vale ward) and the reopening of the Sutton Park Line • Electrification of buses • Acceleration of the planned metro works	Cabinet Member for Environment and Transport	1 month (February 2026)

3.4 Strategy, Adaptations and Mitigations

3.4.1 The Inquiry Group were advised that international case studies into cities, which had delivered significant improvements in air quality, identify the following success factors[51]:

3.4.2 A joined-up strategy.

[51] Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025.

3.4.3 Delivery of long-term measures

- Investment and promotion of positive public transport, cycling and walking options; and
- Green spaces and Electric Vehicles (EV) promotion.

Strategy

3.4.4 The Council is a large and complex organisation, which is currently undergoing financial challenges and is subject to Government Best Value intervention. The Inquiry Group questioned whether the Council is working effectively as a whole system to make the difference it could make to improve air quality. Examples of this includes:

- Does the Council have sufficient capacity across the relevant service areas to enable schemes and programmes to be delivered effectively and efficiently?
- Is the Council maximising options such as the ringfenced Clean Air Zone funding and other external funding in the best way?
- Is the Council considering air quality adaptions and mitigations as part of its 'business as usual'. I.e. designing schemes which include this as part of the standard offer rather than as an 'add on'.

3.4.5 The Inquiry was provided with an overview of how the net surplus revenues from the CAZ have been allocated based on the key change themes of the Birmingham Transport Plan and the implementation of the priorities of the Clean Air Strategy - which is consistent with the high level spending priorities set out in the CAZ Charging Order[52]:

- £61.027m – Active Travel
- £12.439m – Transform City Centre
- £10.0m – Road Safety
- £4.126m – Clean Air Strategy
- £3.289m – Reallocate road space
- £1.25m – Managing demand

[52] Updated summary provided by Head of the Clean Air Zone on 12 December 2025 reflecting the position on that date. The 'Transform City Centre' allocation includes items such as the City Centre pedestrianisation and public realm programme; City Centre cells, and a contribution to the extension of the Westside Metro. Note that this breakdown refers to confirmed allocations from the net surplus revenue for the CAZ scheme only. The net surplus revenue is the available funds to be allocated after CAZ operating costs have been accounted from the total income generated from the scheme.

3.4.6 At a community level, this funding has supported local engagement and education on air quality; installation of school-based air quality monitors; expansion of the Safer School Streets initiative, and the Environment and Transport Neighbourhoods Fund. However, the inquiry group felt that the Council could explore how it can work better at a local level to deliver green infrastructure which can impact on air quality, for example, grass verge protection.

3.4.7 Access to green space is an example of how tackling air quality requires a collaborative Council approach. When reviewing their evidence, the Inquiry Group considered links between air quality and access to natural greenspace. The Inquiry Group understood that the Council has current policy commitments as set out in the City of Nature Plan, and this access was measured at a ward level. The Inquiry Group questioned whether there were opportunities for these commitments to be strengthened and improve access further.

3.4.8 There was concern from the Inquiry Group that the delivery of different activities, schemes and strategies had been disjointed so far, partly because of different objectives and also because they had been funded through different budgets. The examples of work in and around schools was highlighted as a particular example of this. The Inquiry Group felt there were more opportunities to integrate this delivery in a more effective way; this could be more cost efficient as well as better achieve outcomes.

Governance and Decision Making

3.4.9 The Environmental Justice mapping assessments, and more recently, the Climate Risk and Vulnerability Assessments (set out in 2.1.10–2.1.12) can be used to inform decisions and prioritise interventions in areas of greatest need and across different strategies and investment, so it can deliver fair and inclusive outcomes for all Birmingham residents. For example, using the Environmental Justice mapping assessment for the City of Nature 25-year plan, it can ensure that investment in nature and green infrastructure supports health, wellbeing and climate resilience across all communities.

3.4.10 All decisions taken by Cabinet at the Council need to include an Environment and Sustainability Impact Assessment (ESA). This enables these decision makers to consider key information on impacts on natural resources; energy use; CO_2 emissions; green spaces; biodiversity; the Council's route to Net Zero; waste; and sustainable materials. The theme of natural resources includes a consideration around air quality. The suggested content for an ESA can be viewed in the table below:

Theme	Example
Natural Resources - Impact on natural resources including water, soil, air.	Does the decision increase water use? Does the decision have an impact on air quality? Does the decision discourage the use of the most polluting vehicles (private and public) and promote sustainable modes of transport or working from home to reduce air pollution? Does the decision impact on soil?
Energy use and CO_2 emissions.	Will the decision have an impact on energy use? Will the decision have an impact on carbon emissions?
Impact on local green and open spaces and biodiversity	The proposal may lead to localised impacts on the local green and open spaces which may have an impact on local biodiversity, trees and other vegetation in the area.
Use of environmentally sustainable products, equipment and packaging	Will the decision present opportunities to incorporate the use of environmentally sustainable products and avoid the use of single use plastics and packaging?
Minimising waste	Will the decision minimise waste creation and maximise recycling during the construction and operation of the development/programme/project? Will the decision provide opportunities to improve recycling?
Route to Zero.	How does the proposal or decision contribute to tackling and showing leadership in tackling climate change and deliver Route to Zero aspirations?

Adaptations and Mitigations

3.4.11 Climate adaptation and green infrastructure were also highlighted for their role in improving air quality and promoting health benefits as well as climate resilience. For example, Sustainable Drainage Systems (SuDs) such as trees and green walls) can have a positive effect on local air quality, particularly in areas where air pollution is an existing problem. They can absorb or remove certain pollutants, including nitrogen dioxide and particulates[53].

[53] Air quality, susDrain accessed 5 January 2026

3.4.12 The Inquiry Group were also advised that Planning Policy is being updated to embed climate risk considerations[54].

Waste Strategy

3.4.13 The Inquiry Group considered there were links between improvements in air quality and an improved waste service. The Inquiry Group explored what contribution, if any, the current Tyseley Energy Recovery Facility made to the city's air pollution and whether other options will deliver improvements in air quality. The Inquiry Group also explored how overall reductions in waste produced will result in less material to be incinerated[55].

3.4.14 Birmingham has an existing Waste Strategy 2017–2040 which outlined a long-term plan to transform how waste is managed in the city. A refreshed strategy is currently under development to better enable the Council to deliver its waste transformation programme[56]. Although local authorities are under no legal obligation to produce a Waste Strategy, it is an implied obligation to have one. The Environmental Protection Act 1990 outlines the responsibility of central government to produce a national waste strategy, and it is advisable that the objectives of a local authority's waste strategy complement this. The national Resources and Waste Strategy, published in 2018, outlines the approach to reduce waste over the next 25 years. The strategy details how the Government will seek to:

- Work towards a more sustainable future.
- Change public attitudes towards waste.
- Improve recycling rates.
- Tackle waste crime.
- Reduce food waste.

3.4.15 The Tyseley Energy Recovery Facility (ERF), located in the ward of Tyseley and Hay Mills in Birmingham, opened in 1996 and remains a key part of Birmingham's waste management infrastructure. The facility processes waste to produce electricity. The ERF is operated by Veolia, a global environmental services company, who initially held a 25-year contract to operate the plant. A further 5-year contract extension was later awarded in 2018, extending Veolia's operation of the plant to 2024.

[54] Evidence Gathering session 3: Air Quality Inquiry – Evidence Gathering, Sustainability and Transport Overview and Scrutiny Committee, 13 November 2025.
[55] Evidence Gathering session 1: 23 October 2025
[56] Evidence Gathering session 1: 23 October 2025

3.4.16 In April 2023, Cabinet approved a report seeking to enter into a ten-year agreement with Veolia for the Transitional Contract for the Operation, Maintenance and Renewal of the Tyseley ERF, further extending the facilities life span and operation by Veolia[57]. The rationale for this 10-year agreement was to extend the operation of the facility and enable the Council time to plan for a longer term and more environmentally friendly waste solution. The report states that 'a 10-year period in which new technologies can be developed and tried and tested [will help the Council] to deliver the long-term solution to its waste and recycling needs, post 2034'[58]. During this transitional period, operation of the Tyseley ERF meant that Birmingham's waste would continue to be processed without the need for landfill. While the awarded contract was for a period of 10 years, the cabinet report states that there is an option to extend up to a further 5 years, taking the total term to 15 years. The decision was subsequently referred back to Cabinet by the Sustainability and Transport Overview and Scrutiny Committee[59]. The Cabinet reconsidered their decision on the 27June 2023 and re-approved the decision to award the contract[60].

3.4.17 This 2023 report outlines that Tyseley ERF generated 184,157 MWh of electricity in 2021, helping to power approximately 63,000 households, equivalent to 15% of homes in Birmingham. On average, every tonne of waste treated at Tyseley ERF saves 0.2 tonnes of carbon dioxide compared with landfill, and Veolia are seeking to achieve 70% recycling rates at the facility by 2034. The report states that the 'transitional contract with Veolia will assist the delivery of the Council's aspiration to be net zero carbon by seeking to move waste up the waste hierarchy', as the ERF is more environmentally friendly than relying on landfill.

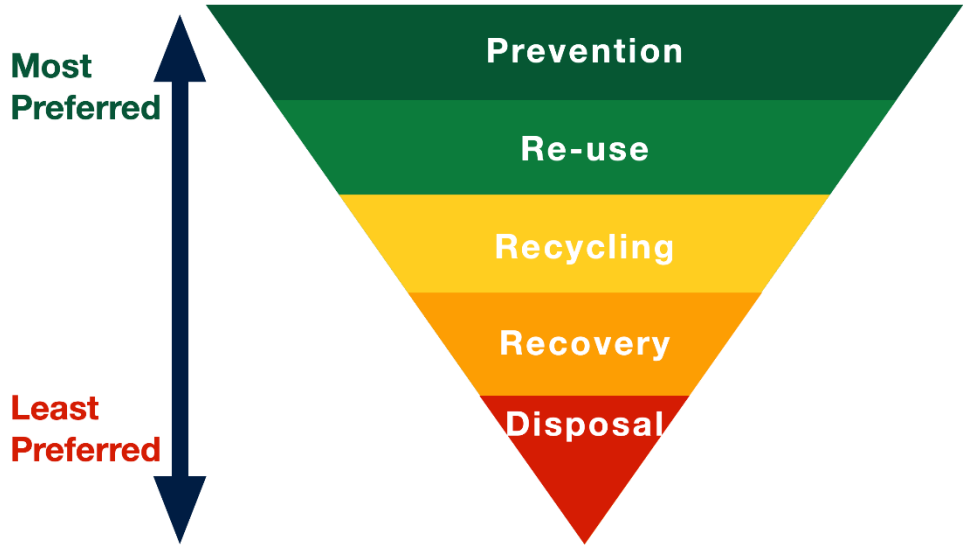
3.4.18 The Waste service confirmed that the post 2034 future of the Tyseley Energy Recovery Facility is being considered as part of the future plans for the city's waste management. As part of this, the service would consider the facility's impact on air quality and recent changes in legislation. They also highlighted that any in the event of a decision to remove the facility, it would take 5-6 years to demolish[61].

3.4.19 It is anticipated that a draft waste strategy including an options appraisal would be available to consider with members and internal consultation from June 2026, and with a decision anticipated in 2027. At this stage, officers had not identified a preferred

[57] Decision Details: Contract Award for the Operation and Maintenance of Tyseley ERF, Waste Transfer Stations and Household Waste Recycling Centres
[58] Decision Details: Contract Award for the Operation and Maintenance of Tyseley ERF, Waste Transfer Stations and Household Waste Recycling Centres
[59] Decision Details: Request(s) for Call in: Contract Award for the Operation and Maintenance of Tyseley ERF Waste Transfer Stations and Household Waste recycling Centres
[60] Decision Details: Decision Called In: Contract Award for the Operation and Maintenance of Tyseley ERF, Waste Transfer Stations and Household Waste Recycling Centres
[61] Evidence Gathering session 1: 23 October 2025

option as the evidence was still being reviewed[62]. The Inquiry Group were advised that progress had been slowed on the strategy and the waste transformation programme due to the impact of the industrial action. The Inquiry were concerned that this timeline may mean that the Council is not ready for the end of the current contract in 2034. They considered that that this should be a critical priority for the new Executive Director for City Operations.

3.4.20 The Inquiry Group were assured that the new strategy would be based on the waste hierarchy model (see below).



4

4.1.1 The Inquiry Group explored challenges the city is facing in reducing the levels of waste being taken to the Tyseley Energy Recovery Facility, which in turn will reduce the amount of waste to be processed. They discussed how the recycling service is currently not being delivered due to the impact of the ongoing industrial action[63]. The Inquiry Group felt that it would take significant time for recycling levels to return to, and exceed, pre-industrial action levels. This would need to be supported by a change behaviour approach. The Inquiry Group were concerned that details of this approach are not available.

4.1.2 The waste service advised that recent progress has been made in building joined up relationships with Planning. This will help Waste Services to advise on, and plan for, best waste solutions for new developments. So, instead of responding to problems

[62] Evidence Gathering session 1: 23 October 2025
[63] Evidence Gathering session 1: 23 October 2025

when they emerge, the service will be able to proactively plan its delivery which will be better for residents[64].

Key Finding 12: The Council lacks capacity to deliver schemes to improve transport and air quality. Both the Active Travel and Road Safety Inquiries also found this.

Key Finding 13: Encouraging active travel and improving access to green space will deliver benefits for air quality. This is recognised as some CAZ funded and other net zero projects contribute towards these objectives.

Key Finding 14: Canopy coverage, grass verge protection and Sustainable Drainage Systems (SuDS) are important measures to be considered when designing highway schemes to improve air quality. There may be opportunities to consider how these measures can be implemented more effectively in the city.

Key Finding 15: Birmingham City Council's Clean Air Strategy has 6 council pledges to improve air quality across the city. It does not set out how it is monitored and outcomes are being tracked.

Key Finding 16: Since the decision to award the contract in June 2023 for the Tyseley Energy Recovery Facility, Waste Transfer Stations and Household Waste Recycling Centres – Operate, Maintain and Renewal, the Council has not completed any work to analyse its impact or explore alternative options. This is disappointing given the feedback from the Sustainability and Transport Overview and Scrutiny Committee when this decision was referred back to Cabinet to reconsider this decision. A new waste strategy is under development, which will include an options appraisal.

[64] Evidence Gathering session 1: 23 October 2025

Ref	Recommendations	Responsibility	Completion Date
R12	Review current policy commitments for access to natural greenspace as set out in the City of Nature Plan. Consider if the Council can strengthen its commitment to residents by aiming for all residents to have access to a nature- rich green space within a 10-minute walk of their home (and beyond Natural England's GI Standards – 'Green in 15').	Cabinet Member for Environment and Transport	6 months (July 2026)
R13	Ensure that the new Waste Strategy's options analysis considers: • A range of future options for waste disposal including alternatives to the current Energy Recovery Facility in Tyseley when the contract ends in 2034; and • The financial, health, economic and internal capacity cost benefits analysis for each short-listed option.	Cabinet Member for Environment and Transport	24 months (January 2028)
R14	Ensure the Sustainability and Transport Overview and Scrutiny Committee and Neighbourhoods Overview and Scrutiny Committee are able to input into and inform the development of the draft Waste Strategy. The Sustainability and Transport Overview and Scrutiny Committee will want to understand how the new strategy will: • Reflect the waste hierarchy; • Reduce the overall volume of waste produced and increase the proportion of waste recycled, and ensure less waste is incinerated; • Delivers a service to an increasing population whilst still reducing overall volume of waste and improvements in recycling levels; and • Achieve an overall reduction in the number of individual journeys carried out by the waste service.	Cabinet Member for Environment and Transport	24 months (January 2028)
R15	The Council investigates how to deliver projects more effectively and efficiently by: • Reshaping how it works collaboratively between delivery and enabling services	Cabinet Member for Transformation, Governance and HR/ Cabinet Member for	6 months (July 2026)

Ref	Recommendations	Responsibility	Completion Date
	to enable the timely progression of projects from conception to completion; • Reviewing whether best use is being made of funds such as the Clean Air Zone to address gaps in capacity; • Requesting a succession plan for programmes and schemes i.e. the School Crossing Warden Programme funded through limited such as the Clean Air Zone funds to mitigate against the risk of air quality improvements being lost.	Environment and Transport/ Cabinet Member for Finance	6 months (July 2026) 12 months (January 2027)
R16	Provide a report to the Sustainability and Transport Overview and Scrutiny Committee on how the Council is ensuring all future design of highways and transportation schemes consider how to protect, replace and increase canopy coverage, grass verges and sustainable drainage systems; and explore how existing Planning policy can be strengthened to require 30% canopy coverage in new developments including retention of existing trees and set a higher standard than the 10% biodiversity net gain requirement.	Deputy Leader/ Cabinet Member for Environment and Transport	6 months (July 2026) 12 months (January 2027)
R17	Ensure the developing Clean Air Strategy sets out a clear action plan to deliver on its commitments including how it will be monitored and success measured.	Cabinet Member for Environment and Transport	12 months (January 2027)

Appendix A: Relevant Legislation and Strategies

Strategy/ Policy/ Legislation	Global/ EU/ National/ Local	Key Focus
WHO Global Air Quality Guidelines (2021)	Global	The WHO's Air Quality Guidelines set non-binding recommendations for safe levels of key pollutants such as PM2.5, PM10, and NO_2. While not enforceable by law, they serve as important benchmarks for national and local policy to protect public health.
EU Revised Ambient Air Quality Directive (2024)	EU	The Ambient Air Quality Directive strengthens air pollution standards across the EU, reducing the permitted levels for the pollutants PM2.5, PM10 and NO_2, to align more closely with the World Health Organization's (WHO) guidelines. It requires member states to monitor and report on air quality, designate air quality management areas, and prepare plans to meet legal limits.
EU Zero Pollution Package 2022	EU	The EU's Zero Pollution Package is a set of legislative proposals aiming to reduce air, water, and soil pollution, ensure cleaner air, strengthen the treatment of urban wastewater, and align standards with WHO targets by 2030 to achieve net zero emissions by 2050.
The Clean Air Strategy for England 2019	National	This strategy sets out actions to address all major sources of air pollution, including transport, domestic heating and industry. The strategy aims to protect public health and the environment. It includes measures to reduce emissions of Particulate Matter and NO_2 and aims to reduce the number of people living in places exceeding WHO guideline concentrations.
Environmental Protection Act 1990	National	A foundational piece of UK environmental law. The Act covers a broad set of environmental protection functions relating to the control of waste, water pollution, contaminated land, and air pollution. The Act grants local authorities' powers to designate smoke control areas, sets out duties and offences, and provides frameworks for waste disposal and regulation.

Environment Protection Act 1995	National	The Act provides a legal framework for regulating pollution and managing waste, emissions, and environmental harm caused by businesses and individuals. The Act created the Environment Agency, granting the agency powers to monitor, enforce, and penalise activities that damage the environment.
Environment Act 2021	National	The Act covers air quality, nature and biodiversity, waste and resources, water quality, and chemical regulation. It includes legally binding targets, grants legal powers to the Office for Environmental Protection, and establishes obligations on the government to improve or restore the natural environment.
Clean Neighbourhoods and Environment Act 2005	National	This Act gives local authorities power to deal with a range of environmental issues such as litter, refuse, fly-tipping, abandoned vehicles, graffiti, and noise. The Act provides a legal basis for local mitigation and enforcement.
Smoke Control Areas Legislation	National	Under the UK Clean Air Act and related laws, local authorities can designate Smoke Control Areas, where only authorised fuels may be burned. This aims to reduce levels of domestic pollution.
Climate Change Act 2008	National	This Act provides legally binding climate targets with the long-term goal of achieving net zero by 2050. It also establishes the independent Committee on Climate Change to advise the Government, monitor progress, and recommend policies on climate change.
Waste Regulations 2011	National	The Waste Regulations implement EU provisions and UK policy on waste management: covering the duties of waste producers, setting a legal framework for how waste is to be managed, regulated, and tracked.
Clean Air Zone Framework for Delivery 2023	National	Published by Defra, this strategy provides guidance and expectations for local councils on how to deliver improvements in air quality. It sets out new PM2.5 targets, describes powers and tools available to local authorities, and aims to improve the consistency of action across local government.
Birmingham Clean Air Strategy 2022	Local	The strategy presents long-term ambitions to improve air quality in the city. It outlines actions the Council will take that include improving the monitoring of air quality, especially around schools, increasing engagement with businesses, and embedding air quality considerations across council decision making.

Birmingham Air Quality Action Plan 2021	Local	The plan outlines that actions that Birmingham City Council will take to reduce levels of NO_2 in the city. Key priorities include reducing emissions from road transport, promoting cleaner vehicles and reducing single occupancy car journeys.
Birmingham Waste Strategy 2017-2040	Local	The strategy aims to significantly reduce the amount of waste produced in the city, by maximising recycling rates and the reuse of materials, and through treating residual waste at energy recovery facilities, to reduce reliance on landfill.
Annual Status Report on Air Quality 2024	Local	All local authorities are required to report annually to the government on air quality in their area.
City of Nature 25 Year Plan	Local	Aims to increase publicly accessible greenspaces from 600 to 1,000.
Urban Forest Master Plan	Local	Sets out the intentions for the green space and natural capital of the city through a long-term approach with an action-based strategy. It focuses on how the city will develop and manage its urban forest in the years to come.