

WMCA Board

Date	17th November 2023
Report title	WMCA Air Quality Framework and Implementation Plan
Portfolio Lead	Cllr John Cotton Portfolio Holder for Environment, Energy and HS2
Accountable Chief Executive	Laura Shoaf Chief Executive, WMCA
Accountable Employee	Ed Cox Executive Director, Strategy, Economy and Net Zero Jackie Homan Head of Environment, WMCA
Report has been considered by	Environment and Energy Board (July 2023 and Sept 2023) Transport Delivery Overview and Scrutiny Committee: Air Quality, Congestion and Environmental Impact Members Engagement Group (Sept 2023) Transport Delivery Overview and Scrutiny Committee (Oct 2023) Overview and Scrutiny Committee (Nov 2023)

Recommendation(s) for action or decision:

The WMCA Board is recommended to:

- (1) Endorse the draft Air Quality Framework Implementation Plan.
- (2) Endorse the regional approach to tackling air quality, as summarised in this paper and the Air Quality Framework Implementation Plan, and outlined in detail in the Air Quality Framework.

- (3) Consider adopting, as part of development of the Regional Air Quality Framework, stretch targets which are more ambitious in terms of timescales and pollutant concentration targets than the UK Government air quality targets, and which are closer to World Health Organisation (WHO) targets for NO₂ and PM_{2.5} (recommendation coming from TDOSC).

1. Purpose

To provide an overview of the Air Quality Framework, and its associated Implementation Plan for the next 2 years. The paper also highlights delivery priorities, including funding secured/ required to expedite projects/ programmes.

2. Background

- 2.1 An Air Quality Options Paper was taken to WMCA Board in February 2022 that outlined the challenges the region is facing in relation to air pollution. The options paper highlighted the inequality of exposure to poor air quality across the region and drew attention to the need to address pollution from particulate matter with more urgency. The options paper outlined 122 possible interventions that could be adopted to improve regional air quality, taken from the literature and work undertaken by Public Health England (now the UK Health Security Agency), but also recognised that a more detailed piece of work would be needed to develop these further, or to add any additional interventions. As a result, the Air Quality Framework has been produced (and will be available here from 13th November: <https://www.wmca.org.uk/what-we-do/environment-and-energy/air-quality/>). This document is not a strategy, but a review of all the measures possible to accelerate improvements to regional air quality. It is accompanied by an Air Quality Framework Implementation Plan (AQFIP), which is a shorter document prioritising the measures to be implemented/ commenced over the next 2 years. The AQFIP is attached to this Board paper as Appendix 1.

Summary of the issues

- 2.2 There are a number of different air pollutants that affect the West Midlands and have implications for human and public health. The main ones are nitrogen dioxide (NO₂) and particulate matter (especially PM_{2.5}). Both of these have environmental, social and economic impacts for the region that have previously been set out in the Air Quality Options Paper.
- 2.3 Since the Air Quality Options Paper was produced, DEFRA has published the national air quality targets (following on from the Environment Act 2021) and the National Air Quality Strategy. The targets are as follows:
- NO₂ 40 µg m⁻³ [this is a retained target]
 - PM_{2.5} 20 µg m⁻³ [new Environment Act: 10 µg m⁻³ (by 2040)]

There have been questions about the level of ambition in these targets, which have predominantly been established to accommodate the challenges faced by London in reaching them. It would be feasible for the West Midlands to achieve these targets sooner and then reduce exposure even further. For context, the World Health Organisation Air Quality Guidelines (which are not legal limits) are as follows:

- NO₂ 10 µg m⁻³
- PM_{2.5} 5 µg m⁻³

- 2.4 To put this in a West Midlands context:
- The highest annual average PM_{2.5} concentrations in the West Midlands are modelled in central Birmingham, Coventry, Sandwell and Walsall.
 - DEFRA provides air pollution estimates of pollution concentrations at 1km resolution. When averaged to ward level, these data show annual average PM_{2.5} levels in 72 of the 192 wards within the West Midlands exceed 10 µg m⁻³
 - 1.2m people or ca. 40% of the West Midlands' population live in wards exceeding PM targets of 10 µg m⁻³.
 - The least advantaged areas (highest IMD score) tend to have the worst air quality.
- 2.5 The constituent local authorities have been working to address this through measures identified in Air Quality Action Plans (as required by DEFRA) or, in the case of Solihull MBC, an Air Quality Strategy. The focus of these is largely the reduction of NO₂, which is produced (and can be reduced) locally. PM_{2.5} is different because it lives longer in the atmosphere and therefore spreads further geographically – this means that regional approaches may be more appropriate in addressing it.
- 2.6 In order to accelerate the improvement of air quality in the WMCA area, one of the actions proposed is to identify stretch targets, recommended by the Transport Delivery Overview and Scrutiny Committee, that are more ambitious in terms of timescales and pollutant concentration targets than the UK Government air quality targets, and which are closer to World Health Organisation (WHO) targets for NO₂ and PM_{2.5}. This work would be done as part of the delivery of the Air Quality Framework Implementation Plan (see Section 2.23 below).

Scope of the Air Quality Framework

- 2.7 Whilst all options for improving air quality have been considered by the Framework, the implementation opportunities have been narrowed down by the cost, time and likelihood of deployment. This is covered by the Methodology section below. The main consideration in determining if a measure is in or out of scope is the principle of subsidiarity, i.e. is it the case that there is (or could be) added value from adopting a regional approach to delivery?
- 2.8 In terms of defining 'regional' we mean where a measure could be better delivered by more than one authority acting alone. This has meant that anything that is clearly within local remit to deliver has been excluded, likewise anything that would need a national intervention has also been removed.
- 2.9 There are some 'grey areas' including communications and behaviour change initiatives, for example, which can be delivered by a local authority independently. However, from the work undertaken in developing the Framework, it has become clear that there are advantages in consistent messaging to business and the public and collaborating to deliver behaviour change programmes. There might also be instances where economies of scale make a difference for procurement, for example on the purchase of low-cost sensors.

Methodology

- 2.10 In preparing the Air Quality Framework, all options outlined within the initial Air Quality Options Paper, and other key sources (such as from DEFRA), were considered at the

outset. These were supplemented with additional options identified at the initial consultation stage of the Framework development with Transport for West Midlands (TfWM), constituent local authorities and partners such as WM-Air (at the University of Birmingham). Any options which were clearly outside of the Framework scope, or were unlikely to be in the future, were excluded from the long list. All options which may be at all feasible or within the scope of the Framework were carried forward.

- 2.11 There is a total of 158 measures identified in this Framework that could be taken to tackle air pollution across the region; 145 were taken forward to full appraisal following an initial assessment with consultees. They have been grouped into the following categories (although there is synergy between many of these):
- Engagement and behaviour change
 - Domestic emissions and indoor air quality
 - Transport
 - Natural and built environment
 - Commercial, industrial and agriculture
 - Public health
 - Planning, policy, governance and mechanisms for change
 - Monitoring and digital
 - Climate/net zero considerations
- 2.12 Each of the measures identified within these thematic groups has been assessed against the following criteria:
- Health outcomes, including direct improvement to human health and reducing health inequalities
 - Spatial impact, including whether a regional approach brings benefit
 - Alignment with local and national policy
 - Cost, implementation and timescales, assessing measures against feasibility, timescales and cost
 - Co-benefits – do the measures have any additional environmental or economic benefit?
- 2.13 The tables produced in each of the sections of the Framework highlight the measures that deliver most effectively against the criteria identified. The entire list of measures is provided in summary tables in a technical appendix to the Framework. Each of these summary tables gives:
- Where a particular measure ranked in the overall theme, as well as the score it was given against all the criteria
 - The outcome that we would look to achieve through its implementation
 - The potential approach to implementing it
 - Initial implementation costs and indicative timescales
 - Any constraints
- This has been taken into account in relation to the preparation of an Air Quality Framework Implementation Plan (see 2.16 – 2.22 below).
- 2.14 Extensive consultation has been involved in developing the Framework. Organisations consulted include: WMCA directorates; WMCA panels/groups (e.g. Strategic Transport Officers Group and WM Environmental Protection Group); TfWM; University of Birmingham/WM-Air team; constituent local authorities; non-constituent local authorities; external organisations (e.g. Asthma and Lung UK, Clean Air Justice Network, EarthSense, Friends of the Earth and Mums for Lungs); and the Greener Together Citizens' Panel. A consultation event took place on 17th August to review the

Framework, which has been updated in response to feedback received – 48 people from the organisations referenced above attended.

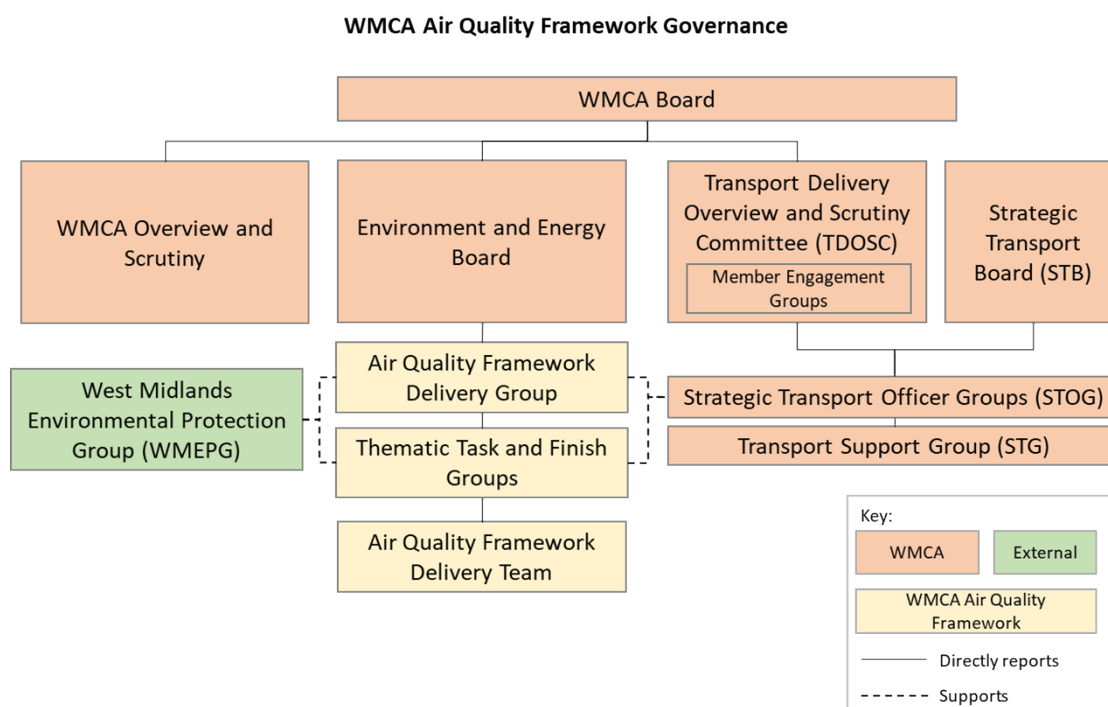
- 2.15 The measures identified in the Framework are comprehensive, and we do not expect them to become out of date in the short-term. However, we would expect to build in a review process every five years to ensure that they are still supporting regional ambition to reduce air pollution in total, and inequality of exposure overall. We would also want to make sure that the Framework is taking account of innovations in technology, as well as national policy.

Air Quality Framework Implementation Plan

- 2.16 The Air Quality Framework provides us with an extensive list of measures that could be put in place to address poor air quality across the region. To make a start on delivery a focused list of Framework priorities has been developed into a two year Air Quality Framework Implementation Plan, which will be overseen by an Air Quality Framework Delivery Group (see 2.18 – 2.20 for more on proposed governance).
- 2.17 At the Framework consultation event on 17th August all the measures were made available for people and a simple prioritisation exercise was undertaken. This was then considered alongside input from colleagues in local authorities, TfWM and the Framework prioritisation to produce the Air Quality Framework Implementation Plan. It consists of 9 packages of work and 10 standalone measures. The delivery will start with a discrete number of these measures (Section 2.23 below).
- 2.18 In addition to the measures themselves, the consultation also gave participants the opportunity to discuss potential governance for delivery. To ensure that the Framework is delivering for the whole WMCA area, we will establish an Air Quality Framework Delivery Group. This is something that has been flagged in conversations with constituent local authority partners as a helpful route to continue coordination. This will also facilitate engagement with air quality partners (as identified in the Environment Act, 2021) as well as bringing additional expertise on board to support different air quality issues that are common to all partners.
- 2.19 The Framework Delivery Group membership would comprise the 7 constituent local authorities, WMCA and TfWM as well as other relevant partners with a focus on public health, environment, research and innovation. Suggestions made through the consultation process include:
- Public health (Directors of Public Health as well as the UK Health Security Agency)
 - Community group representation
 - A member of the University of Birmingham's WM-Air Team
 - Business representatives
 - Birmingham International Airport
 - National Highways
 - National Express/ National Rail
 - West Midlands Fire Service

We would envisage that some of these organisations would be involved in specific task and finish groups (outlined in 2.20 below) rather than as part of the ongoing group. A terms of reference will be established, following approval from the WMCA Board, with a proposal to meet quarterly.

2.20 The Framework Delivery Group will sit within existing governance in the following way:



2.21 In terms of the measures, and delivery, there is no proposition here to change roles and responsibilities for local authorities. We have assumed that this work will continue as previously, although there may be opportunities to bring economies of scale/ benefits from collaboration. In addition, we also assume that actions related to TfWM, and its governance and actions, will continue to be delivered through existing routes. It has become clear that the WMCA could add immediate value through behaviour change/ awareness raising and scaling up of monitoring capability and data collection.

2.22 Annual progress reports on the delivery of measures in the Air Quality Framework Implementation Plan will be brought to the WMCA Environment and Energy Board.

Priority work programme for 2024 – 2026

2.23 A number of priority areas are included in the Implementation Plan, and the initial work would start on the following:

1. Installation of a regional low-cost sensor network with capability of measuring PM2.5.
2. A website to collate and publicise data from new and existing sensors.
3. Behaviour change and air quality literacy delivery, specifically looking to reduce PM2.5 and its impact.

Priorities 1-3 are funded through a DEFRA air quality grant (see Section 2.24 below)

4. Identify stretch targets for air quality (could the West Midlands have more ambitious targets than those set nationally and what would they be?).
5. Full air quality communications package, including a region-wide alert system for high levels of air pollution.
6. Regional school engagement and accreditation programme.

7. Regionwide planning and design guidance for air quality to ensure consistency across the WMCA area.
8. Business case for speed limit reduction on high-speed roads and for lowering speed limits in urban centres.

Priorities 4-8 will need to be funded through the re-prioritisation of existing budgets.

- 2.24 In parallel to producing the Air Quality Framework, the WMCA secured **funding from DEFRA** in March 2023 to support collaboration on behaviour change projects, as well as on monitoring and data transparency. This project will be delivering the following:
- Installation of 30 low-cost sensors where there is modelled to be high population exposure to PM_{2.5}. These monitors will bring consistent data, currently lacking, across the WMCA.
 - Creation of a public facing regional air quality platform. The sensor data will feed into a centralised dashboard for the public to see near real time air quality data. The website will be a hub of educational and campaign resources, including toolkits on anti-idling campaigns, domestic combustion reduction campaigns and general awareness raising. We are also going to procure a solution that can accommodate existing sensors already deployed across the region.
 - Regional air quality awareness campaign. This project will begin by raising awareness and to start a regional conversation on air quality. There will be community engagement events (3 in each local authority) to provide information on why clean air is important.
 - Behaviour change campaigns in the local community. Design and implement a package of different types of projects to improve awareness of air quality in their communities and implement interventions to reduce exposure and pollution; this will use the outcomes from the awareness-raising activity.
 - Air quality literacy programme. We will use this project to develop training materials for politicians and organisations to understand the need for action.
 - Communications toolkit. A communications toolkit will be developed for all the local authorities across the region. It will include social media assets, communication materials and key messages that will be co-produced and shared with stakeholders to present a consistent message across the region.

- 2.25 In addition to this, we have taken air quality as an issue to the **Greener Together Citizens' Panel**. This provided us with a set of considerations that we should take into account when thinking about if, when and how we implement any of the measures from the Air Quality Framework/ Framework Implementation Plan. The Panel met as we were developing the Framework and we are planning to support a future session of the Panel to test the delivery of measures in the Framework Implementation Plan, particularly those that may be more challenging to instigate or that require trade-offs to be made. The report on their work on air quality can be found on the dedicated Greener Together Citizens' Panel pages here: <https://www.wmca.org.uk/what-we-do/environment-and-energy/west-midlands-greener-together/greener-together-citizens-panel/>

Resourcing delivery of the Air Quality Framework Implementation Plan

- 2.26 The DEFRA Air Quality grant detailed above, will support the implementation of some priority measures, especially in relation to behaviour change and establishment of a low-cost sensor network, and availability of data to support decision-making across the region. The successful delivery of other measures will be dependent on resourcing and

business cases and subject to the WMCA Board approval, or appropriate delegated approval in line with WMCA Single Assurance Framework procedures.

2.27 The initial funding from DEFRA has enabled us to put in place an Air Quality Lead within WMCA. This role will work across all the constituent local authorities to support roll out of a low-cost sensor network and implementation of behaviour change programmes. Resourcing to support delivery of the AQFIP beyond this grant funding and associated measures is to be identified.

3. Strategic Aims and Objectives

The work on air quality links to a number of the strategic aims of the WMCA. These include:

- WMCA Business Plan Aim 4 (To reduce carbon emissions to net zero, enhance the environment and boost climate resilience), specifically objectives Objective 4.4 (we will pioneer and embed transport innovations and drive behaviour change to reduce emissions, improve air quality, and enable the creation of green jobs) and Objective 4.5 (we will work with partners to increase investment in nature and our surroundings). The Air Quality Framework is specifically referenced in Objective 4.5.
- The WMCA Natural Environment Plan and maximising the potential of biodiversity in enhancing air quality.
- The Local Transport Plan – improvements in air quality could be delivered across the six big moves, but are particularly drawn out in the ‘green transport revolution’ section.
- The State of the Region’s Health (air quality, and exposure to air pollutants) is seen as one of the wider determinants of health).
- The Inclusive Growth Framework, particularly in relation to improving health and well-being across the region.

4. Financial Implications

A number of priority areas are included within the Implementation Plan, and the initial work will be funded through a combination of secured DEFRA grant funding as well as the re-prioritisation of existing budgets.

The tables below identify the work that is planned over the next 2 years and their associated funding requirements.

DEFRA Grant Funded:

24/25	25/26
Installation of sensor network: £140k	
Website to collate and publicise data: £70k	
Behaviour change & AQ Literacy: £360k	
TOTAL: £570k	

Funded through re-prioritised existing budgets:

24/25	25/26
Identify stretch targets: £25k	Communication package: £50k
Planning and design guidance: £60k	Schools engagement programme: £100k
Speed limit reduction business cases: £60k	
Communication package: £30k	
TOTAL: £175k	TOTAL: £150k

5. Legal Implications

There are no legal implications directly arising as a result of this paper. Any legal implications will be considered on a project-by-project basis.

6. Single Assurance Framework Implications

The role of the Assurance and Appraisal Team is to apply the SAF process to the WM AIR Quality business case which has already been approved. The Assurance and Appraisal team have confidence that SAF has been applied to the business case and that it demonstrated that effective plans for delivery are in place and that the risks to the WMCA have been considered.

7. Equalities Implications

Having clean air to breathe should be enjoyed by all communities across the West Midlands. The current picture indicates that this is not the case, with many communities suffering from poor air quality that leads to harmful impacts on health and other social and economic outcomes. The aim of this Air Quality Framework Implementation Plan is to complement the work already happening in local authorities to address poor air quality across the region, but also to accelerate action in areas that have a regional dimension, especially around particulates.

8. Inclusive Growth Implications

This report links to a number of the WMCA's eight inclusive growth priorities, which are identified as 'a catalyst for improved and sustained outcomes for people place, co-designed with partners and beneficiaries'. The Air Quality Framework Implementation Plan will support outcomes around:

- reduction of health inequalities;
- improving understanding, awareness and knowledge of environmental issues;
- supporting the principle of powerful communities through providing support to deliver change and create better places; and,
- equality (reducing the numbers of people living in deprivation).

9. Geographical Area of Report's Implications

The Air Quality Framework Implementation Plan covers all constituent local authorities. There is also potential to collaborate with non-constituent authorities on some of the communications tools and messaging being developed through the Framework.

10. Other Implications

None

11. Schedule of Background Papers

- Appendix 1: West Midlands Air Quality Framework Implementation Plan
- The full version of the Air Quality Framework will be available here from **Monday 13th November**: <https://www.wmca.org.uk/what-we-do/environment-and-energy/air-quality/>