



Transport Delivery Committee

Date	9 April 2018
Report title	Air Quality Update Lead Member Report
Accountable Director	Laura Shoaf, Managing Director, Transport for the West Midlands
Accountable Employee	Anne Shaw – Director of Network Resilience, TfWM Email anne.shaw@tfwm.org.uk Tel 0121 2147 881
Report to be/has been considered by	Councillor Davis – Lead Member for Congestion & Air Quality

Recommendation(s) for action or decision:

The Transport Delivery Committee is recommended to:

1. Note the issues relating to air quality
2. Actions being taken forward by the Bus Alliance to assist with meeting air quality standards by the Bus Alliance

1.0 Purpose

- 1.1 The purpose of this report is to update the Transport Delivery Committee on actions being taken to improve air quality by TfWM in particular through the Bus Alliance.

2.0 Background

The Impact of Air Pollution

- 2.1 Poor air quality in the West Midlands is a major public health burden and is recognised as the fourth largest risk to public health, behind cancer, obesity and cardiovascular disease.
- 2.2 Long-term exposure to air pollution shortens the period of our citizens' lives for which they are in good health and shortens overall life expectancy. Current estimates on the impact that air pollution has on citizens in our area range from 1300-2500 premature deaths each year. Whilst there are no known quantitative assessments of the impact on public expenditure and productivity, it is also understood that this impact is considerable (with UK estimates placing the cost of air quality health impacts to society at £20bn every year across the country).

2.3 It is known that air quality effects on health are distributed unequally across the population.

- The most susceptible groups to impacts from exposure to poor air quality include pregnant women (and their unborn children), children, older people, and people with certain pre-existing medical conditions.
- Those most at risk of being exposed to air pollution are professional groups such as taxi, bus and delivery drivers who are estimated to suffer with three times the exposure to poor air quality than average.

2.4 In urban areas where air quality is poor, transport is a major contributor to a number of harmful air pollutants (in particular nitrogen dioxide¹ and fine particulate matters).

National Policy Context

2.5 Following legal action by environmental group Client Earth, the Government has been found in breach of its duties under EU environmental standards. Client Earth is seeking a further judicial review because of 'major flaws' in the Government's Air Quality Plan published in 2017. The Plan recognises that without further action 31 of 43 UK zones will fail to meet air quality targets in 2020. However, of concern to environmental and other groups, is the Plan's identification of buses as the priority diesel vehicles for local authorities to target within Clean Air Zones. Following buses, HGVs, vans and then diesel cars are proposed, in this order, as priorities for clean air measures.

2.6 As was noted at the recent UK Bus Summit, this reverses the accepted contribution of each road transport mode to NOx pollution. Diesel cars are the single biggest contributor to NOx emissions (at 41% of all emissions from road transport). This far exceeds the comparative emissions from bus transport: even a modern Euro 6 diesel car emits ten times the NOx per passenger than a comparable Euro6 engine powered bus journey. (Source: Greener Journeys, UK Bus Summit).

Regional Policy Context

2.7 Our transport plan for the region, Movement for Growth, has two major policies related to improving air quality, these are:

ENV1 To significantly improve the quality of the local environment in the West Midlands Metropolitan Area

PUB3 To assist with the reduction of health inequalities in the West Midlands Metropolitan Area

2.8 Furthermore, Movement for Growth states specifically that TfWM will reduce transport's impact on our environment through improving air quality and reducing carbon emissions. Our 2026 Delivery Plan indicates that TfWM will track the air quality impact of traffic on the West Midlands' Key Route Network (KRN)² on air quality. It also states that additional schemes,

¹ Where nitrogen dioxide limits are being breached, transport sources account for approximately 80% of nitrogen oxides in these locations on average.

² The West Midlands KRN is a network of major roads across the West Midlands that the TfWM (through the WMCA) has an enhanced role in managing and developing alongside the metropolitan local authorities.

changes to schemes, and reprioritization of schemes in the delivery plan will be considered as our air quality evidence base improves.

- 2.9 The WMCA's Second Devolution Deal to Promote Growth contained commitments from Government to work with the Mayor, WMCA and the local authorities to develop and implement a comprehensive strategy for improving air quality across the West Midlands in collaboration with the local authorities.

Consequences of the Air Quality Plan for Nitrogen Dioxide (NO₂) in UK (2017)

- 2.10 The Government's recent air quality plan (August 2017) shows that the West Midlands is the UK region with the most exceedances of the annual nitrogen dioxide limit outside of London. All seven of the West Midlands metropolitan authorities have current exceedances of this limit.
- 2.11 Government expects all areas with exceedances to take steps now to reduce emissions if there are measures they could take to bring forward compliance (without relying on natural fleet turnover). In particular, Government is concerned that exceedances in Birmingham and Coventry are so extensive that they are likely to persist without significant intervention. Both Birmingham and Coventry are therefore required to develop specific proposals over the next couple of years to address exceedances which will be supported by dedicated Government funding.
- 2.12 Specifically in the case of Birmingham, Government is requiring Birmingham to introduce a charging Clean Air Zone alongside other measures. Whilst Coventry is not required to consider a charging Clean Air Zone, they must demonstrate that their preferred solution is at least as effective as a charging Clean Air Zone.
- 2.13 Birmingham's Clean Air Zone must be implemented within the shortest possible time as per the court rulings and this is likely to be by the end of 2019. Government therefore expects Birmingham City Council to produce a Full Business Case, following the appropriate consultation, for consideration by the Secretary of State by summer 2018.
- 2.14 Coventry City Council will be required to produce initial plans by the end of March 2018 with final plans due by the end of December 2018.
- 2.15 Until Birmingham and Coventry city councils have both completed their studies to inform their proposals and consulted with the public, we won't know exactly what the final proposed solution will be. TfWM continues to offer support to both local authorities as they develop their proposals.

West Midlands Bus Alliance

- 2.16 The West Midlands Bus Alliance, the first of its kind in the UK, brings together the WMCA, local bus operators, our seven councils, and other partners to work together to deliver high levels of passenger satisfaction and drive forward investment in our bus services. We do this as a way of encouraging less use of the car, cutting pollution and protecting our environment. Our focus is on making bus travel in the West Midlands cleaner, greener, safer and faster.
- 2.17 One of the Alliance's key objectives is to improve bus emission standards. This includes seeing additional levels of investment by local operators in environmentally friendly vehicles,

piloting zero emission buses on at least two corridors, and using the powers in the Bus Services Act 2017 to implement local action to tackle air quality issues.

- 2.18 Through the Alliance, a number of deliverables have been achieved, which will see air quality benefits across the region, with buses an integral part of the solution to local air pollution. Our award-winning West Midlands Low Emission Bus Delivery Plan sets out the framework for effectively driving that ambition forward.
- 2.19 To improve bus emissions standards, Birmingham city council have approved a pilot scheme which will see at least 20 new cleaner, zero emission hydrogen-fuelled buses take to Birmingham's roads. The new vehicles will be delivered by March 2019, with £13.4 million of funding for the pilot agreed.
- 2.20 WMCA and Coventry city council have been successful in two separate applications to the Clean Bus Technology Fund 2017-2019, to retrofit 468 vehicles to Euro VI standard. The WMCA application includes match-funding from four operators and grant funding of £3 million. The Coventry city council application includes match-funding from National Express Coventry, and a £1.5 million grant fund. The vehicles will be retrofitted by 31 March 2019.
- 2.21 National Express West Midlands has spent £10 million on 38 brand new top specification buses for routes through Harborne. The Platinum double deckers are kitted out with comfier seats, extra leg room, free Wi-Fi and USB charge points, as well as new ticket machines, which react quicker than the older ones to speed up bus boarding times. In early 2018, the 38 vehicles will be fitted with smart hybrid engines, which emit extremely low levels of nitrogen oxide, further improving air quality.
- 2.22 Solihull Advanced Quality Partnership Scheme (AQPS) came into operation on Sunday 26th November 2017. This is the first new AQPS to be implemented in the country under the new Bus Services Act 2017 and includes Euro VI emission standards by January 2021.
- 2.23 Formal consultation began on a Wolverhampton city centre AQPS on the 22nd January 2018. It is expected the scheme will be implemented (subject to consultation) on 30th September 2018. This will see improved emission standards, with a minimum Euro III standard in place at the scheme start date. The phasing of the minimum emission standards for Wolverhampton city centre are in line with the West Midlands Bus Alliance current commitments of a minimum Euro V emission standard by 1st January 2020. There will be a Euro VI minimum standard milestone twelve months later.
- 2.24 TfWM have also increased the engine standards for buses through tendered bus services, which covers roughly 10% of the entire bus network, requiring all operators to comply with a minimum of Euro V engine standards on tendered bus services. This requirement on fleet helps to push operators towards increased standards across the network, and will fall into line with AQPS standards and CAZ requirements where Euro VI engines are required.

SPRINT Vehicle

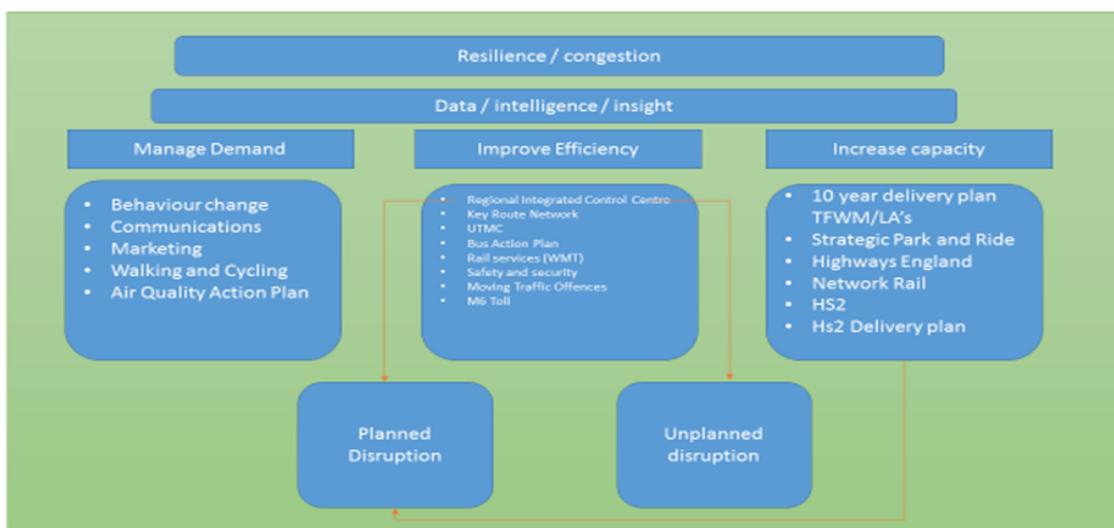
- 2.25 The Sprint programme is being developed with the first three routes to be delivered in advance of the Commonwealth Games in 2022. The Sprint vehicles will be at least Euro VI compliant. We have explored hybrid vehicle options which would enable full electric operation in specific areas; implementation of this technology is subject to prospective operator negotiation.

Transport Innovation

- 2.26 TfWM continues to engage with MaaS Global on the Mobility as a Service (MaaS) platform pilot project currently under development based on the Whim mobile application. MaaS platforms could enable users to reduce their personal car use and transfer a proportion of their journeys to sustainable forms of transport such as public transport, cycling and walking with car journeys if required being provided 'on-demand' through a third party such as a rental car or private hire/Taxi provider. The Whim trial is expected to go live in the early Spring with test users recruited by MaaS Global.
- 2.27 TfWM is currently developing a strategy paper regarding the infrastructure requirements for Ultra Low Emission Vehicles. Specifically this will relate to electric vehicle (EV) charging and fuelling of Compressed Natural Gas (CNG) and Hydrogen fuel cell vehicles. The UK has set itself ambitious decarbonisation targets, with all sales of cars and vans to be zero emission technologies by 2040, and a ban on petrol and diesel powered vehicles by 2050. The market for 'plug in' EVs is growing, with 120,000 on the road in the UK, with a predicted further 70,000 registered in 2018. National Grid expect 9 million plug in EVs on the road by 2030. Key current initiatives in the West Midlands include installation of electric vehicle charging points in Coventry and Wolverhampton for Taxi operators utilising funding from Government and the development of the new battery technology R&D facility to be located at a site to be confirmed in Coventry and Warwickshire.

Managing Congestion

- 2.28 Reducing congestion on our roads will assist with improving air quality by reducing the amount of emissions particularly from standing traffic. Programmes are currently being delivered with further initiatives under development to support this and are based around improving the efficiency of our transport networks, increasing capacity and managing demand. Some examples are shown in the diagram below. It should be noted that the clean Air Zone being developed in Birmingham will also have an impact on demand.



- 2.29 There are a number of road projects through the National Productivity Investment Fund (NPIF) that are currently under delivery (see appendix 1). These will improve key locations where congestion is an issue and provide improvements for buses through more efficient running networks including upgrades to traffic signals and bus priority measures.
- 2.30 Additional Capacity is also being delivered on the transport network is being delivered as part of the wider HS2 connectivity package which includes tram, sprint rail and road improvements as mentioned in the previous sections. In addition, through our rail partnerships there will be additional capacity for over 70,000 more passengers daily with proposed improvements to park and ride facilities such as those at Longbridge as well as improved and new station development.
- 2.31 The Combined Authority has also been provided with DfT funding to develop a business case for a regional integrated control centre (RICC). This will enable the join up of various traffic and travel control centres and introduce further capabilities for a 24/7 where it is needed to support the efficient running of the network. The RICC will enable efficiencies for both the local highway authorities, Highways England and transport operators to work together to more proactively manage the day to day operational performance of the road network as well as have improved practices for managing incidents and resolving issues more effectively. This, combined with effective communication channels will also enable the public and business to plan journeys around disruption and assist with modal shift by offering alternative options to travel.

3.0 Impact on the Delivery of the Strategic Transport Plan

- 3.1 Improving Air quality will deliver the outcomes of policy contained within the strategic transport plan in as set out in section 2.5 above.

4.0 Wider WMCA Implications

- 4.1 There are no wider implications for the WMCA identified. Coventry and Birmingham are progressing with their plans for improving air quality and TfWM is supporting their emerging mitigations through initiatives. We are also aiming to ensure that there no displacement of poor air quality. We can assist with refining this as and when the proposals from each authority become known.

5.0 Financial implications

5.1 There are no further financial implications to WMCA at this stage as a consequence of this report. However where any additional WMCA input/support is required this will need to be considered and evaluated so any one-off and on-going financial implications can be quantified before any decision is made.

6.0 Legal implications

6.1 The Legal implications have been addressed in the content of this Report and there are no further direct implications arising.

7.0 Equalities implications

7.1 Poor air quality and resulting health issues tends to impact on the most vulnerable in our society, it is therefore important that we strive to deliver a programme which ensures that we improve the life chances of all.

7.0 Other implications

7.1 There are no further implications

8.0 Schedule of background papers

8.1 None attached

9.0 Appendices

Appendix 1 – NPIF programme

Appendix 2 – Terms of Reference Lead Member Reference Group

Appendix 1

National Productivity Investment fund – projects

Authority Area	project	funding
Coventry	Keeping Coventry Moving	£700k
Solihull	A34 Stratford Road Growth corridor	£616.5
	Solihull Bridge Five year Programme	£600.0
City of Wolverhampton	A4124 Traffic Signals Upgrade and Bus Priority	£500k
Dudley	Brierley Hill Strategic Centre	£660k
Sandwell	A34 Birmingham Road/A4041 Queslett Rd/Newton Road	£273k
Walsall	A461 Eastern Opportunity Area	£920k
Birmingham	Bus Lane Enforcement tranche 2	£98k
	Bromford Gyratory Ph. 1	£569k
	Holloway Circus	£700k
	Journey Time reliability to City Growth Area	£530k

Appendix 2 - Air Quality & Congestion Reference Group

Remit

The Air Quality & Congestion Reference Group (which includes overall transport resilience) will share information on TfWM priorities for possible action on congestion, resilience and air quality, including information on Clean Air Zones or their equivalent (i.e. in Birmingham and Coventry) as more information became available. Much of this would be driven by the legal requirements placed on Birmingham CC and to a more flexible extent, on Coventry CC.

Other possible topics include:

- New Street Station passenger air quality (though this sits also more with Rail/Metro)
- Public Service Vehicle emissions reduction (e.g. Hydrogen Bus Pilot).
Members felt this bus pilot would be a good topic for a wider presentation.

It had been agreed that the AQ Reference Group meets circa quarterly on TDC days for 2018. Members are Councillors Davis (Lead Member), Linnecor, Welsh and Andrews.

Air Quality & Congestion Group Terms of Reference:

- To monitor and report on the future development of measures to reduce road traffic congestion in the West Midlands. Plus measures to monitor and cut its associated negative air quality and associated environmental impacts, including any measures supporting the delivery of the environmental objectives within the West Midlands Strategic Transport Plan and other strategic planning documents.
- To monitor progress on programmes seeking to effect cuts in congestion and its associated health and environmental impacts in line with WMCA policies, strategies and timescales.
- To monitor and support work with public transport operators, passenger groups and members of the public to support the delivery of reduced congestion on the roads, plus general improvements in air quality across all forms of private and public transport.
- To give guidance and input during the preparation and clearance of reports within the portfolio area which are to be considered at any Transport Delivery Committee meeting.