



West Midlands
Combined Authority

Overview and Scrutiny Committee

Date	10 January 2022
Report title	WMCA Air Quality Options Paper
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The text of this report is the draft text of the proposed report to WMCA Board on 11th February 2022.

Recommendation(s) for action or decision:

The WMCA Board is recommended to:

1. Note the reports and growing importance of particulate matter in addressing air quality.
2. Note the relationship between local authorities and combined authorities established by the Environment Act (2021).
3. Consider a new a more proactive collaborative working arrangement with local authorities developing air quality plans within a wider West Midlands Air Quality Framework which clarifies roles for different parties and identifies a number of shared working practices.

1. Purpose

To outline two different approaches that are likely to be available to the WMCA and its constituent local authorities to improve air quality across the West Midlands Combined Authority area. This is particularly important given the recent Environment Act (2021) and the anticipated additional targets on addressing particulates, a review of limits of different pollutants and a new approach to developing partnerships for delivering improved air quality.

2. Background

Existing activity

- 2.1 The West Midlands is faced with air pollution from a number of different sources, the main sources being NO_x and NO₂ (predominantly generated through emissions from transport) and particulates (PM_{2.5} and PM₁₀). More information can be found on these pollutants, and how they behave, in the appendix to this paper. To date, NO_x and NO₂ emissions have largely been addressed through Local Air Quality Action Plans (which Defra has required from all the WMCA constituent local authorities, with the exception of Solihull, which has its own air quality strategy). Transport for West Midlands has also been addressing NO_x and NO₂ through the Local Transport Plan.
- 2.2 In 2019, a draft *West Midlands Combined Authority Regional Air Quality Review and Action Plan* was prepared by AECOM. This provided a useful reference point for air quality improvements across the West Midlands and was used to develop 10 priority areas for action in transport. Transport for West Midlands (TfWM) regularly updates the WMCA Transport Delivery Committee Member Engagement Group (MEG) for Air Quality, Congestion and Environmental Impact on the progress around these actions.
- 2.3 In addition to regional work, the Air Quality Options Paper (Appendix 1), outlines some of the work that has already been delivered across the region, including the activity that constituent local authorities are taking through their own air quality action plans. Some examples of action being delivered locally:
 - Birmingham has now implemented its Clean Air Zone. The local authority also has a map showing live air quality data in real time at certain locations across the city.
 - Solihull has implemented a School Streets programme to tackle traffic congestion outside schools as well as supporting green corridors to promote active travel through the Wildlife Ways project.
 - Sandwell has developed supplementary planning guidance to assist developers e.g. recommending electric vehicle charging points and low emission boilers. Sandwell is also regulating a large number of industrial activities within the borough and has recently been successful in securing a Defra grant to work with faith groups to improve air quality via behavioural change.
 - Dudley is providing information for residents and businesses to support air quality improvements, including information on transport, planning and a section for schools and children called 'Kids and air quality information'.
 - Wolverhampton has an action plan which includes 23 interventions aimed to improve air quality – the plan is currently being revised. The council's website also points to government guidance around smoke control and solid fuel burning.
 - Walsall has an air quality action plan and, through its council website, points residents to further sources of information on air quality. There is also material on

engagement in specific parts of the local authority area where industry is resulting in higher emissions.

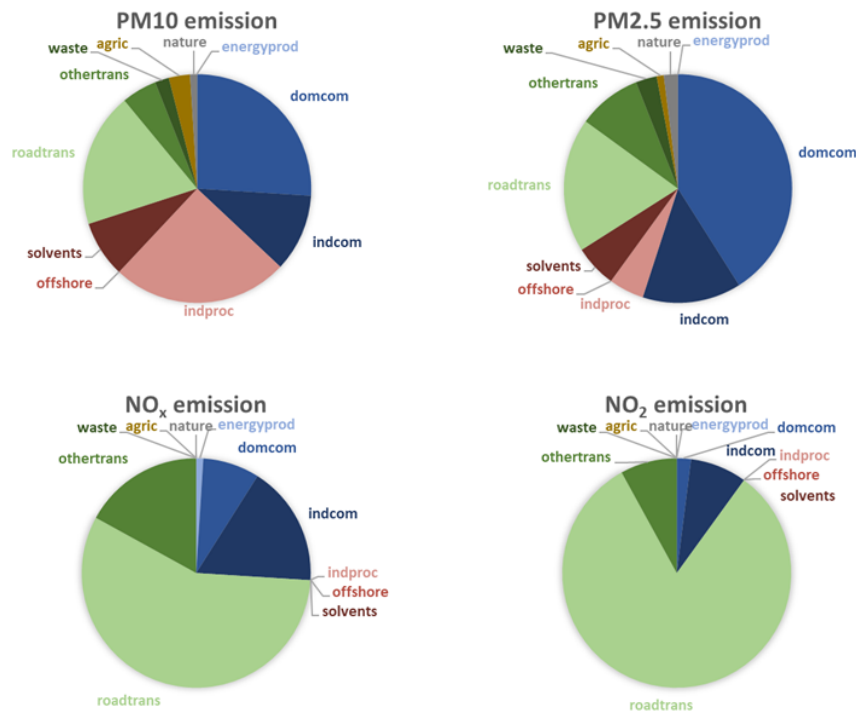
- Coventry is tackling air quality through a range of measures, including active travel and support for electrification. There have also been trials in the city around new types of air quality monitor (AQ Mesh monitors) as well as a £2m 'early measures' programme (funded by Defra) looking at infrastructure and behaviour change to improve air quality.

It is also important to recognise that other regional stakeholders are also developing plans on what they can do to improve air quality, for example University Hospital Birmingham has included air quality as part of its wider sustainability strategy.

- 2.4 To date, the focus on addressing air quality in the West Midlands (by both the WMCA and constituent local authorities) has been in lowering NO_x and NO₂ emissions; the predominant sources of these are from transport. This is likely to change with the new targets that will be set through the Environment Act (2021), which sets out the government's framework for environmental legislation post-Brexit.

A new focus on particulate matter

- 2.5 In addition to NO_x and NO₂, the Act increases the focus on air pollution caused by particulates, particularly PM_{2.5} and requires the Secretary of State to establish a long term (minimum 15 years) target in respect of air quality and a target for annual mean PM_{2.5} concentrations. These targets will be legally binding and the Act says that they '*must be laid before Parliament on or before 31 October 2022*'. If the annual mean PM_{2.5} target was set at the 2005 WHO guideline level (10 µg m⁻³), as is the case in Scotland, 72 of the 192 wards within the WMCA would be in exceedance of this target (2019 data). Similar exceedances would be observed in other urban areas in England. Whatever is finally agreed, it would seem there will be an extended period of further consultation on PM_{2.5} limits.
- 2.6 The additional targets on particulates will require a broader approach to addressing air pollution. This approach will still require a focus on transport but will also need to address domestic and industrial combustion as well. As NO_x and NO₂ are primarily emitted from petrol and diesel vehicles, the electrification of the fleet to meet net zero targets is likely to lead to a significant reduction in the emission of these species over the next decade. Particulates are emitted from a broader range of sources including non-tail pipe emissions from vehicles (e.g. tyre and break wear), domestic and industrial combustion sources and therefore changes to the vehicle fleet will have a smaller impact on emissions.
- 2.7 The pie charts below illustrate the sources of directly emitted of particulates, NO_x and NO₂ in the West Midlands region. As well as direct emission from these sources, particulates may also be formed in the atmosphere.



The different pollutants need different interventions at different scales (addressed in subsequent paragraphs).

Potential interventions

- 2.9 Addressing air quality, particularly with anticipated changes coming as a result of the Environment Act (2021), requires a range of different interventions. These will mostly continue to be the responsibility of local authorities in the region, particularly because of the requirement for Air Quality Action Plans (in all the constituent authorities except Solihull). A number of them are already in place, as outlined in Paragraph 2.3.
- 2.10 This report has evaluated potential interventions from a number of sources:
- Public Health England's *Improving outdoor air quality and health: review of interventions*. Most of the interventions identified are taken from this source.
 - WM-Air. The University of Birmingham's WM-Air project has identified additional interventions through research and regional knowledge developed as part of this programme.
 - Discussions with local authority air quality and transport officers, as well as colleagues in Transport for West Midlands.

In total, there are 122 interventions identified through these sources (outlined in more detail in the Appendix to this paper) that are relevant to the West Midlands context, even though there are none that require a 'regional only' approach. The interventions can be broadly split into:

- 2.11 Technology/ infrastructure solutions
- **Vehicles and fuel:** there are 51 potential measures highlighted. Our analysis suggests that 6 of these currently lie within local authority responsibility, especially with regard to enforcement and licensing. Some of the measures identified would also need national delivery (e.g. national road pricing). There are 19 measures where there is potential for a joint local/regional approach, including information campaigns, developing infrastructure

for electric vehicles and uptake of low/ zero carbon forms of transport. From a regional perspective, the new Local Transport Plan may provide the main route for alignment.

- **Industry:** there are 21 measures identified, 7 of which require national action and 1 requires local delivery (on locating biomass heat generation). The remainder provide an opportunity for a collaborative approach across national, regional and local geographies. It is important to note that solutions in this area are challenging, but also an opportunity for innovation.
- **Domestic emissions:** there are 5 measures identified, largely in relation to emissions around solid fuel burning. Some authorities have already included this as part of their work on air quality, but there may be potential for increased impact with regional coordination and messaging.
- **Indoor air quality:** this remains a new area of work, but will be increasingly important to tackle alongside new build low/zero carbon homes and retrofit being delivered by local authorities and also through regional programmes. There are 4 measures identified.

2.12 Enabling solutions

- **Spatial planning:** there are 13 actions related to planning, which mostly can only be delivered by local authorities given existing powers (there are some measures, for example tree planting, where other organisations can also play a role).
- **Behaviour change:** there are 13 actions identified. These could be carried out independently by local authorities but might benefit from a collaborative approach across the region – for example having one message around burning solid fuels in a domestic setting rather than 7 separate campaigns.
- **Data and innovation:** this is an important part of the programme – understanding how far existing interventions are going to improve air quality; the impact of new interventions and the co-benefits of interventions that address both carbon and air pollution will be important in guiding investment decisions. There are 6 interventions identified which have the potential to benefit from a collaborative approach.
- **Policy and coordination:** there are 9 possible interventions, all of which could potentially benefit from a collective approach. The aim of collaborating in these areas is to benefit from a joined-up voice to national government and a consistent regional message around priorities and actions.

2.13 When considering the cost/impact of different interventions, the number of measures that will have a significant impact on health is much reduced. Furthermore, associated with a cost/impact analysis, further consideration needs to be made as to which spatial scale is best place to drive policy and activity, especially for those interventions where activity could be carried out both locally or regionally.

Options for delivery

2.14 The Environment Act also makes new provisions around responsibilities for tackling air quality. It requires local authorities and other relevant public bodies to work closely together when developing air quality action plans through the ability to designate 'air quality partners'. Whilst the onus will remain on local authorities to continue to produce Air Quality Plans, there will be the opportunity for them require air quality partners to co-operate with the development of action plans, and to take proportionate action to improve air quality where necessary. There is an expectation in the Act that combined and local authorities will support each other in the delivery of plans and air quality interventions.

2.15 Based on this, it would seem that there are the following options by way of an overarching approach:

a. Retaining existing working arrangements on air quality

There is the potential to continue to deliver air quality action using the current working arrangements. In this scenario, local authorities will continue to lead on Air Quality Action Plans, which may need to be updated with new thresholds for particulates which the Environment Act requires the Secretary of State to set. The regional role would be delivered through work done as part of the Local Transport Plan, the Regional Energy Strategy, the Five Year Plan for Net Zero and the regional Natural Environment Plan, as is currently the case. The governance to deliver the joint approach would remain as it currently is, with the addition of new considerations around particulates as they relate to transport. The Environment Act allows local authorities to require certain actions of the combined authority as a designated 'air quality partner' on an ad hoc basis.

b. A more collaborative approach to air quality

The Environment Act makes provision for local authorities to seek the support of other air quality partners, including the combined authority, to address their concerns, not least where pollutants move across local boundaries and collaborative interventions might be required. To support this it might be advantageous to clarify respective roles and responsibilities, agree to a set of shared working practices, and identify those interventions where a regional approach can be collectively agreed. In simple terms, Local Air Quality Action Plans could be complemented by a regional West Midlands Air Quality Framework that would sit alongside the Local Transport Plan.

2.15 If combined authority partners demonstrated a preference for Option 2 and a more collaborative approach, then further work would need to be undertaken to develop a coherent regional air quality framework with a more detailed cost/benefit analysis of key interventions as applied at different spatial scales and further clarification of the respective roles of local, regional and national air quality partners. It is proposed that this work would be undertaken by a Shadow Regional Air Quality Advisory Group (convened by WMCA but with local authorities taking the lead), which would be in addition to existing governance arrangements around transport. This group would feed into TfWM governance but would also report to the WMCA Environment and Energy Board and would bring formal proposals for a regional air quality framework and governance to a meeting of the WMCA Board in the next 12 months.

3. Financial Implications

3.1 There are no immediate financial implications from this paper.

3.2 If the WMCA Board demonstrated a preference for a new collaborative approach to air quality as outlined above in 2.13b, then work would need to be undertaken to develop a Regional Air Quality Framework with a detailed cost/benefit analysis of key interventions and further clarification of the respective roles of local, regional and national air quality partners. This initial work could be funded from existing WMCA resources.

3.3 The formal proposals for a Regional Air Quality Framework and governance could then be brought back to the WMCA Board in the next 12 months for further consideration. This would also include the financial asks associated with delivering the framework and the funding source.

4. Legal Implications

None from this paper.

5. 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 a Regional Air Quality Framework would be to complement the work already happening in local authorities to address poor air quality across the region, but to accelerate action in areas that have a regional dimension, especially around particulates.

6. 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'. In particular, improving air quality will improve health and well-being through reduction of health inequalities. There are also other elements of the work on inclusive growth where there are clear shared outcomes in terms of improving air quality, particularly:

- climate resilience (many of the initiatives that will be put in place to reach net zero will also have positive outcomes in relation to air quality);
- connected communities (providing a sustainable way for people to access resources and opportunities has the potential to improve air quality); and,
- equality (reducing the numbers of people living in deprivation, which also includes lack of access to clean air – there is a significant correlation between some of the most deprived wards in the West Midlands and the worst air quality).

7. Geographical Area of Report's Implications

The report concentrates on the seven constituent authorities. Addressing air quality may involve non-constituent authorities as part of delivery. These relationships will be developed on a case-by-case basis.

8. Other Implications

None.

9. Schedule of Background Papers

Appendix 1: Air Quality Options Paper