

Transport Delivery Overview & Scrutiny Committee

Date	22 January 2024
Report title	The Role of Green Infrastructure in Urban Design for Air Quality and Climate Resilience
Portfolio Lead	Transport - Councillor Mike Bird
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Report has been considered by	Executive Board 3 January 2024

Recommendation(s) for action or decision:

The Transport Delivery Overview & Scrutiny Committee is recommended to:

- 1) Welcome the presentation by WM-Air, University of Birmingham
- 2) Recommend that TfWM officers developing West Midlands Local Transport Plan 5:
 - i. incorporate, in relevant sections of the Plan the “reduce, extend, protect” principle, to support the role of green infrastructure in urban transport design for air quality.
 - ii. review the draft “Green Transport Revolution” Big Move Chapter to ensure it effectively encompasses the role of green infrastructure in supporting climate resilience in the West Midlands.

1. Purpose

- 1.1 The report supports the presentation by WM-Air, University of Birmingham. This sets out how green infrastructure in urban design can reduce exposure to poor air quality and support climate resilience. The report seeks to ensure that key principles from the presentation are incorporated into the new West Midlands Local Transport Plan 5.

2. Background

- 2.1. WM-Air is a University of Birmingham-led 5 year air quality improvement programme. It's aim is to support the improvement of air quality, and associated health, environmental and economic benefits in the West Midlands. WMCA/TfWM is a project partner.
- 2.2 One of the strands of WM-Air is Urban Design and Green Infrastructure for Air Quality. Professor Rob MacKenzie is project lead, supported by Dr Emma Ferranti, Associate Professor in Civil Engineering at University of Birmingham.
- 2.3 Dr Emma Ferranti gave a presentation to the Air Quality, Congestion and Environmental Impact MEG on 28 November. The MEG felt that TDOSC would highly value the presentation and its key points. This presentation will be based on that given to the MEG, which is attached in the appendix. The MEG Chair, Councillor Ian Ward then identified key points from the presentation which TDOSC could consider for recommending inclusion into the emerging new West Midlands Local Transport Plan 5. (LTP5).

3. Key Points for Consideration as part of development of the new LTP5

- 3.1 There are two main areas for consideration of inclusion into LTP5:
 - i. The "Reduce, Extend, Protect" principle for green infrastructure
 - ii. The role of green infrastructure in supporting climate resilience
- 3.2 The "Reduce, Extend, Protect" principle is covered in some detail in the presentation, but in essence, is based on firstly reducing the emission of air pollutants from urban transport. The next approach is to extend the pathways of air pollutants emitted by road transport. Longer pathways from the source mix and dilute emissions. The final strand is to protect vulnerable groups such as older adults, children and people with asthma. This can be achieved by measures such as relocating waiting areas for school childrens' collection and drop off.
- 3.3 With this approach for the design of transport infrastructure and urban design there also needs to be mindfulness of other transport design issues such as available space for bus infrastructure and ensuring good community safety.
- 3.4 Green infrastructure supports climate resilience through reducing exposure to heat by , for example increasing shade from trees, and helps reduce flooding through measures which retain and slow down the release of rain run-off.

3.5 Consideration of these two aspects in the development of LTP5 will support the LTP5's five overall aims of sustaining economic success, tackling the climate emergency, creating a fairer society, supporting local communities and places and becoming more active.

4. Financial Implications

4.1 It is noted this paper is for information only and there are no financial decisions required, as such there are no financial implications attached to this report.

5. Legal Implications

5.1 The contents of this report are stated as being for information purposes only. Consequently, there are no immediate legal implications flowing from the contents of this report.

6. Equalities Implications

6.1 The report seeks to ensure that the Local Transport Plan helps improve air quality conditions for people in the West Midlands and improve climate resilience which will have potential positive impacts for reducing health inequalities for all people in the region regardless of their protected characteristics as defined by the Equality Act 2010. For deeper consideration and reporting of the equalities implications, especially with older and younger age groups and ethnic minorities who are more vulnerable to poor air quality in urban areas, it is recommended that a Health and Equity Impact Assessment is carried out.

7. Inclusive Growth Implications

7.1 By implementing the "reduce, extend, protect" principle in the design of green infrastructure in urban design into the development of the West Midlands Local Transport Plan 5, air quality in the West Midlands will be improved in line with the aims of the West Midlands Combined Authority to "Promote inclusive growth in every corner of the region" and "Reduce carbon emissions to net zero and enhance the environment" by "Connecting our communities by delivering transport and unlocking housing and regeneration schemes".

7.2 In particular, it impacts on the Inclusive Growth fundamentals by:

- delivering on our climate resilience fundamental through climate adaptation; and
- improving health and wellbeing by reducing avoidable or preventable mortality through improved air quality.

7.3 Achievement towards inclusive growth will be monitored and evaluated as part of the implementation of the Local Transport Plan.

8. Geographical Area of Report's Implications

8.1 The report considers possible input into the new West Midlands Local Transport Plan which covers the seven constituent authorities area of the West Midlands.

9. Other Implications

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