

Greater Cambridge Air Quality Strategy



To:

Councillor Rosy Moore,
Executive Councillor for Environment, Climate Change and Biodiversity
Environment and Community Scrutiny Committee

Report by:

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Wards affected:

City Wide

Key Decision

1. Executive Summary

1.1 Cambridge City Council is required to adopt an Air Quality Strategy and officers are seeking a decision on two key elements of the scope prior to bringing a final strategy to Environment and Community Scrutiny committee.

- Investigate the opportunity for a joint strategy with South Cambridgeshire District Council (SCDC)
- The adoption World Health Organisation (WHO) Targets,

1.2 Local Air Quality Management (LAQM) requires Local Authorities to monitor key pollutants (NO₂ & PM₁₀) across their district and report against target levels. Data shows objective levels have been achieved across Cambridge. National legally binding PM_{2.5} targets have been set under the Environmental Target Regulations and levels in Cambridge are around the target annual mean.

- 1.3 Under the Environment Act 2021 an Air Quality Strategy is required if LAQM objective levels are achieved: outlining how air quality will be maintained and improved; including how it will help achieve national PM_{2.5} targets.
- 1.4 Whilst the option exists to do a standalone Cambridge City Air Quality Strategy, given the transboundary nature of air pollution, the scale of development and population increase coming forward in the next 20 years through the emerging Greater Cambridge Local plan and the operation of a joint planning service it makes sense to align the strategy with the new local plan. A joint strategy with SCDC will enable an integrated approach to minimising emissions and maximise benefits to public health.
- 1.5 It is widely accepted that there is no safe level of air pollution. The World Health Organisation (WHO) target levels (2021) are lower than LAQM objective levels and PM_{2.5} targets. The Committee on the Medical Effects of Air Pollutants (COMEAP) considers the WHO 2021 guidelines as suitable long-term targets. These targets are based on the evidence linking concentrations of pollutants in ambient air with adverse effects on health and are targets that protect public health. Cambridge currently exceeds the WHO levels.
- 1.6 The Strategy will be delivered in partnership with Cambridgeshire County Council, Public Health, South Cambridgeshire District council, Greater Cambridge Planning Service and Greater Cambridge Partnership.

2. Recommendations

The Executive Councillor is recommended to:

- 1) Approve the adoption of World Health Organisation (WHO) Air Quality Guidelines as the air quality standard to work towards across Cambridge.
- 2) Approve the progress of a joint Greater Cambridge Air Quality Strategy with South Cambridgeshire District Council with the finalised Strategy coming before committee in March 2024.
- 3) Approve the progress of a Cambridge City Air quality strategy should South Cambridgeshire District Council not wish to pursue a joint strategy, or the delivery times becomes too long.

3. Background

3.1 Legislative & Policy Framework

- 3.1.1 Local authorities are required to monitor key pollutants across their district under the Local Air Quality Management (LAQM) framework. If key pollutants exceed objective levels (see table 1 below) then an Air Quality Management Area (AQMA) must be declared alongside an Air Quality Action Plan (AQAP) outlining how pollutants will be reduced.
- 3.1.2 New national legally binding PM_{2.5} targets have been set. The National Air Quality Strategy (2023) sets out how local authorities are expected to contribute to delivering these targets. Whilst it is acknowledged within the strategy that not all sources of PM_{2.5} originate from within a local authority district the strategy expects local authorities to consider those that are.
- 3.1.3 The Environment Act 2021 require local authorities to produce an Air Quality Strategy where LAQM objective levels are being achieved. Local Authorities are expected to be pro-active, not re-active to ensure that good air quality is maintained including how they will help deliver the national PM_{2.5} targets.
- 3.1.4 Pollutant levels across Cambridge have been reducing and are now typically below LAQM objective levels. SCDC recently revoked their AQMA. Cambridge is likely to do the same in the next couple of years once we are confident pollutant levels are stable following the COVID pandemic. Defra predicts background PM_{2.5} within the city is 10µg/m³. This is supported by the limited PM_{2.5} monitoring undertaken within the city.
- 3.1.5 Measures to improve air quality are typically complimentary to the climate change agenda and support the councils commitment to become carbon neutral by 2030.

3.2 Air Quality & Health

3.2.1 It is widely accepted that there is no safe level of air pollution, with a shift away from specific levels towards exposure reduction and delivering the known health benefits that these reductions can offer.

3.2.2 Research undertaken by the Committee on Medical Effects of Air pollution (COMEAP) concluded that, even low concentrations of pollutants are likely to be associated with adverse effects on health.

3.2.3 The World Health Organisation (WHO) produced updated Air Quality Guidelines (AQG) in 2021. These targets are based on the evidence linking concentrations of pollutants in ambient air with adverse effects on health and are targets that protects public health. COMEAP considers these WHO 2021 guidelines as suitable long-term targets.

3.2.4 Table 1 compares the LAQM objective levels and national targets for key pollutants against the WHO Air Quality Guidelines 2021.

Pollutant	Averaging Period	Concentration	
		Current UK Limit	WHO 2021
AQ (England) Regulations 2000 (Apply to LAQM)			
PM ₁₀ µg/m ³	Annual Mean	40 µg/m ³	15 µg/m ³
	24 Hour Mean	50 µg/m ³	45 µg/m ³
NO ₂ µg/m ³	Annual Mean	40 µg/m ³	10 µg/m ³
	24 Hour Mean	200 µg/m ³	
Environmental Targets (PM) Regulations 2023 (apply to national government)			
PM _{2.5}	Annual Mean	10 µg/m ³	5 µg/m ³
	Exposure Targets	35% Reduction	

Table 1: Air quality Objective Levels and Pollutant Targets

3.2.5 Given the scale of development and population increase coming forward in the next 20 years through the emerging Greater Cambridge local Plan (2020 – 2041) including measures in place to meet 58,500 new jobs across all employment sections and 44,400 new homes, the challenge is how we can continue to deliver improved air quality across greater Cambridge and deliver the health benefits this offers.

3.3 Greater Cambridge Air Quality Strategy

3.3.1 Given the emerging Greater Cambridge Local plan and the likelihood that the city will revoke its AQMA in the next couple of years it makes sense to align the Air Quality Strategy with the adoption of the new local plan. The Strategy can be integrated into the new Local Plan enabling continued improvements to air quality across the city.

3.3.2 As this local plan covers the greater Cambridge Area and we also operate under a joint planning service; and considering the transboundary nature of air pollution a joint 'Greater Cambridge Air Quality Strategy' seems a logical approach which will enable a joined-up approach to improving air quality across the Greater Cambridge area. The Strategy will set out the vision for continued improvements to air quality within Greater Cambridge and will be delivered under four key priority areas:

A. Key Priority 1: Policy & Development Control

Minimising emissions through development is key. The Strategy will be integrated into the local plan policy and can be updated in response to evolving national and local policy. Proposed measures will design out air quality impacts during both construction and operation phases to prevent 'creep' as large scale development comes forward. This may include 'Air quality Neutral' developments, reducing NRMM emissions during construction and EVCP.

B. Key Priority 2: Infrastructure Improvements

Continuing to work with partners to deliver improved infrastructure; facilitating the uptake of more sustainable transport solutions and active travel options. Planning has a major role to play in infrastructure provision. Examples include support of public transport options, freight consolidation / last mile deliveries, road hierarchy, improvements to cycling and walking infrastructure and facilitating EVCP infrastructure provision.

C. Key Priority 3: Community Engagement & Promotion

In parallel to active measures to reduce exposure to pollutants we need to actively promote and engage with residents and visitors enabling access to better information to facilitate behavioural change. This may include anti idling campaigns, better burning campaign, improved public engagement through accessibility of air quality data and promoting awareness on air quality. We will continue to work closely with Public Health.

D. Key Priority 4: Monitoring

Continued monitoring is required given the scale of the future developments and the potential to introduce new hotspots where air quality could be at risk, the need for a robust and up to date monitoring network across the district is a priority.

4. Implications

a) Financial Implications

- 4.1 Existing budgets are in place to support air quality monitoring within the city. Existing continuous monitors collect data for NO₂ and a combination of PM_{2.5} or PM₁₀ at 4 locations. However, these units are currently being replaced under a previously secured budget with all units due to be installed by March 2024. When all units have been upgraded, we will be able to monitor NO_x, PM₁₀ and PM_{2.5} at all continuous monitor sites.
- 4.2 There are no additional financial implications from implementing an Air Quality Strategy apart from potential improvement projects that would be subject to bids to central government or the County Council.

b) Staffing Implications

- 4.3 The introduction and maintaining of the strategy would be covered under existing staffing arrangements. Air quality monitoring is already undertaken.

c) Equality and Poverty Implications

- 4.4 Upon receiving advice from Cambridge City Council's Equality and Anti-Poverty Officer, an equality impact assessment will be produced as the joint strategy develops. A final draft of the assessment would go to committee in March alongside the strategy document itself to inform the decision on the adoption of the strategy. We know that improving air quality has positive impacts for children, older people, disability (mitigating or preventing ill health relating to asthma, coronary heart disease, stroke, lung cancer, chronic bronchitis, and diabetes), and pregnancy (reducing low birth weight) (see: [Health matters: air pollution - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/health-matters-air-pollution)). As the strategy is developed, further specific implications for different groups will be identifiable relating to different measures identified to improve air quality.

d) Net Zero Carbon, Climate Change and Environmental Implications

- 4.5 Rating: Medium Positive

The Proposed Greater Cambridge Air Quality Strategy will adopt WHO Air Quality guidelines as the air quality standard to work towards across Greater Cambridge and details the measures to be implemented to enable this. Measures to improve air quality are typically complimentary to the net zero carbon agenda. Examples of measure likely to be proposed in the strategy that will also reduce carbon include; measures for new development to minimise emissions through design seeking alternatives to combustion emissions from boilers e.g. ASHP's, ensuring design enables easy access to public transport and active travel and incorporates appropriate levels of EVCP within the design where car parking is required. The strategy seeks to prevent 'creep' in air pollution levels from large scale development coming forward and continue to improve air quality by working with partners on wider infrastructure projects to reduce reliance on private vehicles and facilitate the use of public transport and active travel. Improved air quality has a positive impact on biodiversity. Poor air quality (particularly ammonia and Nitrogen dioxide) is a major contributor to the long-term decline of biodiversity in the UK. Whilst this proposal is unlikely to lead to positive benefits across all key areas it is not expected to have any negative impacts which is the reasoning for the proposals overall rating

e) Procurement Implications

N/A

f) Community Safety Implications

N/A

5. Consultation and communication considerations

- 5.1 We are seeking at this stage a decision on two key elements of the scope prior to bringing a final strategy to committee. Should these be approved we will carry our wider consultation among key delivery partners most notably South Cambridgeshire District Council, Cambridgeshire County Council, Public Health England and Greater Cambridge Partnership. At this stage we have had informal discussions with all key partners who are broadly supportive of the approach. The draft strategy will be consulted on more widely before taking to committee for approval.
- 5.2 The full strategy will be promoted more widely once the report has been finalised and approved at relevant committees.

6. Background papers

Background Papers Used in the preparation of this report:

1. Local Air quality Management Policy guidance (PG22), August 2022
[England \(exc. London\) Policy Guidance | LAQM \(defra.gov.uk\)](#)
2. Local Air Quality Management Technical Guidance (TG22), August 2022
[UK Regions \(exc. London\) Technical Guidance | LAQM \(defra.gov.uk\)](#)
3. Air Quality Strategy: Framework for Local Authority Delivery
www.gov.uk/government/publications/the-air-quality-strategy-for-england
4. Air Quality Annual Status Report 2023
www.cambridge.gov.uk/air-pollution-measurements
5. COMEAP Annual Report 2022
www.gov.uk/government/publications/comeap-annual-report-2022
6. COMEAP Response to publication of WHO Air Quality Guidelines
[COMEAP statement: response to publication of the World Health Organization Air quality guidelines 2021 - GOV.UK \(www.gov.uk\)](#)

7. World Health Organisation Air Quality Guidelines (2021)

www.who.int/news-room/questions-and-answers/item/who-global-air-quality-guidelines

7. Appendices

A. DRAFT Greater Cambridge Air Quality Strategy Vs1.7 dated 20.9.23

8. Inspection of papers

N/A