

REPORT TITLE: Consultation on expansion of the Smoke Control Area (SCA)

To:

Councillor Rosy Moore

Executive Councillor for Environment, Climate Change & Biodiversity

Environment & Community Scrutiny committee

26th September 2024

Report by:

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Wards affected:

City Wide

1. Recommendations

1.1 It is recommended that the Executive Councillor:

Approve the consultation to the public on expanding the SCA to cover the whole of the district including to extend the scope of the SCA to include permanent moored vessels.

2. Purpose and reason for the report

2.1 Solid Fuel Burning is the largest single source of PM2.5 emissions in Cambridge. It accounts for 40% of emissions in Cambridge.

2.2 Legislation to control emissions from solid fuel burning is the Clean Air Act 1993 and the use of Smoke Control areas (SCA); a designated area where the emission of smoke is not permitted. You can burn inside a SCA, but either smokeless fuel or a DEFRA approved appliance must be used. In Cambridge we currently have three SCA's which were introduced in the 1960's and 1970's, See Appendix A. The majority of residential properties are outside our existing SCA's.

2.3 Cambridge City Council commissioned an independent report to assess the effects of amending the SCA in Cambridge to cover the whole of the city. The report considered

both the inclusion and exclusion of permanent moored vessels in terms of changes in pollution emissions, health & socio economic impacts. See Appendix B for the full report.

- 2.4 The report concluded that any changes to widen the scope of the SCA would provide a net benefit to society from health improvements due to reduced air pollution and greenhouse gas emissions, with these benefits outweighing the combined costs. Costs include, cost to home and vessel owners of switching fuel or upgrading stove and cost to council for implementation and enforcement.
- 2.5 The impact on individuals was considered as part of the socio-economic study. Very few residents are solely dependent on solid fuel for heating and hot water, with changes impacting those that use wood burning stoves for pleasure or to subsidise other forms of central heating. However, this is not the case for moored vessel owners who are more dependent on solid fuel. Evidence suggests that this group may have lower incomes and be more vulnerable.
- 2.6 The report recommends the expansion of the SCA to cover the whole city including moored vessels however, recommends further engagement with vessels owners given the increased potential vulnerability of this group. Should changes to the SCA be implemented it should be accompanied by a robust awareness raising campaign.

3. Alternative options considered

- 3.1 Cambridge City Council has a responsibility under LAQM to monitor air quality in its district and identify actions to deliver continued air quality improvements, including how we can help meet national targets for PM_{2.5}. Domestic Burning is the largest source of PM_{2.5} in the city and continues to increase due to the growing trend for wood burning stoves. Review of existing SCA's as a mechanism for reducing PM_{2.5} emissions is an action for Local authorities within the National Air Quality Strategy.
- 3.2 The existing SCA's provide limited control on emissions from solid fuel burning due to the limited geographical area, however it is acknowledged that amendments to the scope of the SCA will potentially impact some residents.
- 3.3 The amendments to the Environment Act (2021) allowed the scope of the SCA to be expanded to include permanent moored vessels following a period of consultation. Of the complaints received by Environmental Health pertaining to smoke pollution we receive a disproportionate amount related to smoke from permanent moored vessels,

despite the small number that exist. It therefore makes sense to consider the inclusion of moored vessels should amendments to the SCA be made.

3.4 The independent report commissioned by Cambridge City Council considered the environmental, health and socio economic impacts of making amendments to the SCA. The report considered five scenarios:

- baseline (SCA as existing),
- existing SCA plus inclusion of moored vessels,
- city wide without moored vessels,
- city wide with moored vessels
- No SCA.

3.5 A sensitivity test of 25% non compliance has been built into the results due to the limitations and uncertainty inherent in the report and resulting behavioural changes. The report demonstrated that the scale of environmental and health benefits were in line with the scale of change with the greatest benefits achieved by expanding the SCA city wide. Whilst moored vessels account for a small number of individual sources they are fairly visible and account for a disproportionately large proportion of emissions as a large percentage of vessels rely on solid fuel burning in some capacity.

3.6 The report recommends the expansion of the SCA city wide including moored vessels as this offers the greatest environmental and health benefits. Whilst there is not a requirement to formally consult to expand an existing SCA, there is if the inclusion of moored vessels is to be considered. We recommend consulting on the expansion of the SCA to enable engagement with residents who may be impacted both positively and negatively and disseminate the message about the wider health implications of solid fuel burning. The alternative option to the consultation is not to consult and to retain the existing SCA's as they are.

4. Background and key issues

4.1 Driver for Change

4.1.1 The primary pollutant of concern from solid fuel burning is PM_{2.5} (particulates less than 2.5 micrometres). Solid fuel burning is the largest single source of PM_{2.5} emissions in the district, estimated to account for 40% (35 tonnes in 2021). Wood burning makes up the majority (76% of the 35 tonnes). There is clear evidence that PM_{2.5} has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

- 4.1.2 The Environment Act 2021 amendments required a national target level for PM_{2.5}, with two legally binding targets, each with an interim target set under the Environmental Target Regulations (2023): Target levels set for PM_{2.5} are:
- 10 µg/m³ annual mean concentration PM_{2.5} nationwide by 2040, with an interim target of 12 µg/m³ by January 2028
 - 35% reduction in average population exposure by 2040, with an interim target of a 22% reduction by January 2028, both compared to a 2018 baseline
- 4.1.3 The 'National Air Quality Strategy: Framework for Local Authority delivery' sets out how Local authorities are expected to use their powers to reduce PM_{2.5} emissions within their district from sources which are within their control; with particular emphasis on domestic burning and review of Smoke Control Areas.
- 4.1.4 The recently adopted Greater Cambridge Air Quality Strategy (2024) outlines how continued air quality improvements will be delivered working towards WHO air quality guidelines, with interim targets within the lifetime of the strategy. Consulting on the expansion of the SCA was an action in the strategy.

4.2 **Smoke Control Areas (SCA)**

- 4.2.1 In Cambridge we currently have three SCA's which were introduced in the 1960's and 1970's. They mainly cover the central, southern and western areas of the City. Appendix A shows the extent of the three SCA's.
- 4.2.2 Smoke Control areas (SCA) are mandated through the Clean Air Act 1993 and are the primary mechanism for controlling emissions from solid fuel burning. The Environment Act 2021 amended the Clean Air Act 1993 to include both domestic and commercial premises in a SCA. There is also the option for local authorities to extend the scope of the SCA, following a period of consultation to include permanent moored vessels such as canal and river boats.
- 4.2.3 Within SCA's certain rules apply around the emissions of smoke from chimneys of buildings; and the type of appliance and fuel that can be burnt. SCA's aim to reduce the smoke that can be released from domestic and commercial chimneys, thereby reducing the amount of air pollutants emitted into the air.
- This does not mean solid fuel cannot be burnt within an SCA. In a SCA, residents and businesses must follow certain regulations to be able to burn solid fuel in a way that is both clean and safe. Residents and businesses will still be able to buy and use solid fuel, if they use an approved (exempt) stove or appliance or if they are unable to use an approved stove or appliance they must use an authorised fuel type, for example manufactured solid fuel (MSF's) or anthracite. Unauthorised fuels e.g. wood can only (legally) be used in an approved appliance.

4.3 **Smoke Control Area Impact Study (2024)**

- 4.3.1 Cambridge City Council commissioned an independent report to assess the effects of amending the SCA in Cambridge to cover the whole of the city. It considered both the inclusion and exclusion of permanent moored vessels in terms of changes in pollution emissions, health & socio-economic impacts.
- 4.3.2 Residential emissions are the largest single source of PM_{2.5} emissions in Cambridge with the majority of properties currently outside the SCA. Moored vessels represent a much smaller contribution to overall emissions, and current assumptions are that most are already burning MSF which is compliant under SCA rules, meaning they would not need to change their behaviour.
- 4.3.3 The expansion of the SCA to cover the whole city would have the following impacts:

4.4 *Air Quality & Health*

- 4.4.1 Expanding the SCA city wide is estimated to reduce domestic PM_{2.5} emissions from solid fuel burning by 69% reduction (18.9 tonnes) and even with 25% non-compliance offers a significant reduction. By comparison the existing SCA only offers a 4% reduction in PM_{2.5} emission when compared with no SCA given the small number of residential properties within the existing SCA.
- 4.4.2 This reduction in PM_{2.5} will deliver positive benefits for human health for all residents and visitors to Cambridge but most notably will deliver a reduction of annual deaths and reduce the risk of lung cancer, stroke, ischemic heart disease, asthma and respiratory hospital admissions. It will also deliver additional indoor air quality improvements with associated health benefits.
- 4.4.3 The report concluded that any changes to widen the scope of the SCA would provide a net benefit to society from health improvements due to reduced air pollution and greenhouse gas emissions.

4.5 *Socio Economic Impact on Households*

- 4.5.1 The report recognises that there are costs both to individual households and to the council if the decision to expand the SCA was pursued; however, it concludes the environmental and health benefits outweigh these costs. Costs include cost to home and vessel owners of switching fuel or upgrading stove and cost to council for implementation and enforcement.
- 4.5.2 Impact on individuals was considered as part of the socio-economic study. The report looked at those that need to burn wood as their only heating source, those that burn to

subsidise another fuel source or those who burn on occasion for pleasure and comfort. Data from census 2021 was used to estimate this.

4.5.3 89.7% heat their homes with a single fuel central heating system that is not reliant on solid fuels plus 7.8% have two or more types of central heating. 0% are reliant on wood or solid fuel only for central heating. Therefore, data indicates that very few households fall into the category of burning solid fuel as their only heating source. The greatest impact will therefore be on those that burn wood for pleasure or to subsidise another form of central heating (7.8% or 4,918 properties). 2.1% of the 7.8% are estimated to be using either an open fire or non-exempt stove. Therefore approximately 1,300 households would feel a change in their living and or working conditions should the SCA be extended city wide.

4.6 *Permanent Moored Vessels*

4.6.1 There are approximately 70 moored vessels in Cambridge of which 85% use solid fuel (60 boats). Of those 85% only 25% are predicted to use wood (15 boats). Therefore, if moored vessels were included in the scope of the expanded SCA 15 moored vessel owners will need to change their behaviour, changing either fuel or stove. This change may have a more significant impact as evidence suggests this group may have lower incomes and tend to be more vulnerable (more likely to be elderly, have a disability or long-term health condition). In addition, choice in exempt stoves may be limited with boats less well insulated.

4.6.2 The report recommends the expansion of the SCA to cover the whole city including moored vessels, however, recommends further engagement with vessels owners given the increased potential vulnerability of this group. Should changes to the SCA be implemented it should be accompanied by a robust awareness raising campaign

5. **Corporate plan**

5.1 Many measures to improve air quality are complimentary to the climate Change agenda. Reduction in the burning of solid fuel and most notably wood will lead to reduction in CO2 emissions and will assist Cambridge in moving closer to achieving its targets as set out in Priority 1. The Smoke Control Area Impact Study was completed to inform the council of the potential impact to households should changes to the SCA be progressed. The findings demonstrate that limited households are dependent on solid fuel as their only source of heating and hot water with environmental and health benefits outweighing impacts to individuals who will be those that burn for pleasure or to supplement another heating source. For moored vessel owners who are potentially lower

income further work is recommended and mitigation put in place to assist with the transition should change go ahead. The recommendation is for a consultation only at this stage which will provide further understanding and supporting evidence on the wider impacts of the SCA changes should the council decide to progress. This evidence will help ensure no changes are proposed that could be contrary to Priority 2.

6. Consultation, engagement and communication

- 6.1 We are seeking a decision to consult the wider public on the expansion of the SCA to cover the whole city (considering also whether to include or exclude moored vessels).
- 6.2 The role of SCA's in reducing PM_{2.5} emissions is a key strand in the National Air Quality Strategy which requires Local Authorities to regularly review boundaries of SCA's and look at sources of PM_{2.5} within their districts. In response to this extensive literature and case studies have now been produced through LAQM support to assist Local Authorities in delivering an inclusive and robust consultation that clearly demonstrates and communicates the benefits but also the wider implications of changes to SCA's.
- 6.3 The 'Expansion of the SCA' will be open for wider public consultation on Citizen Lab and Paper copies of the consultation will be available at key locations within the city with a system in place to enable people who are digitally excluded to complete the consultation at the council offices by arrangement or over the phone.
- 6.4 We will make statutory stakeholders and wider stakeholders aware of the consultation to ensure they can respond to the consultation.
- 6.5 The consultation will be promoted widely via Cambridge Matters, Press Releases, social media and posters across the city. Working with local community groups it is proposed to carry out workshops across the city to raise awareness about the proposals and the consultation.
- 6.6 We have started to engage with colleagues in other teams to understand and implement the best ways to engage with all members of the residential communities across the city.
- 6.7 Following recommendations in the 'Smoke Control Area Impact Study 2024' a more targeted approach will be taken for boat owners as given the potential vulnerability of this group it is key they are represented. This is likely to take the form of a workshop and / or targeted questionnaires.

7. Anticipated outcomes, benefits or impact

7.1 We are seeking permission to consult the wider public on the expansion of the SCA, considering both inclusion and exclusion of moored vessels only at this stage. We will aim to carry out the consultation at the end of 2024 / early 2025 with a view to bring to committee in 2025.

8. Implications

8.1 Relevant risks

There are no financial risks associated with undertaking the consultation. Expansion of the SCA is likely to receive mixed responses both for and against the proposal. There is a danger that lack of understanding of the legislation and proposals means residents may assume they 'cannot' burn. This is not the case. It is therefore crucial that the consultation is communicated effectively to the wider public and reaches all sectors of the community.

8.2 Financial Implications

£10,000 was secured from DEFRA funding to assist with the consultation on the expansion of the SCA including promotion of the consultation and wider awareness raising on the issues associated with smoke from chimneys.

There are no additional financial implications associated with undertaking the consultation.

8.3 Legal Implications

N/A

8.4 Equalities and socio-economic Implications

Public Health data indicates that in 2020, 48 deaths in Cambridge could be attributed to Particulate Air Pollution. This figure is calculated based on the number of deaths in Cambridge in 2020 and the Public Health Outcomes Framework Fraction mortality due

to particulate air pollution. Currently PM_{2.5} is considered the most suitable metric for evaluating health impacts.

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). In addition, studies have linked exposure to air pollution with deprivation and deprivation with ethnicity.

The proposal at this time is to complete a consultation only. An Equality Impact Assessment has been completed and is attached to this report as Appendix C. The protected characteristics which are most relevant to this request for a consultation are age and disability and the risk of digital exclusion. The consultation process will need to ensure that this is considered as part of the wider consultation. Should the council choose to progress with the expansion of the SCA a new equality impact assessment will be completed as part of a new committee report.

8.5 Net Zero Carbon, Climate Change and Environmental implications

Rating: Nil

The proposal is for a consultation only at this time on the expansion of the Smoke Control Area (SCA) city wide including permanent moored vessels. Should we choose to recommend proceeding with the expansion this will come back to committee. The consultation as a standalone proposal will not have an impact on the delivery of Net Zero targets, although there may be a minimal net positive benefit from the awareness raising campaign to be carried out as part of the consultation. In addition to promoting the consultation to increase uptake it will seek to improve understanding on the environmental and health impacts of burning solid fuel, implications of any changes to the SCA boundary for residents and benefits of 'Better Burning' to reduce emissions. Should the council opt to proceed it is expected that the expansion of the SCA would deliver a positive impact as many measures to improve air quality are complimentary to the climate change agenda.

8.6 Procurement Implications

N/A

8.7 Community Safety Implications

N/A

9. Background documents

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

- 9.1
 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

10. Appendices

- 10.1
 - A. Maps of existing Smoke Control Areas
 - B. Smoke Control Area Impact Study 2024
 - C. Equality Impact Assessment

To inspect the background papers or if you have a query on the report please contact
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