

Appendix 1

Draft Clean Air Strategy consultation June 2018

1. Consultation Document:

Clean Air Strategy

2. Issued by:

Department for Environment, Food and Rural Affairs

3. Web site link:

<https://consult.defra.gov.uk/environmental-quality/clean-air-strategy-consultation>

4. Date Issued:

22 May 2018

5. Consultation response date:

14 Aug 2018

6. Summary of consultation:

The draft Clean Air Strategy 2018 sets out the actions that government intends to take to improve air quality by reducing pollution from a wide range of sources. The report is consulting on the following themes:

- Understanding the Problem
- Protecting the Nation's Health
- Protecting the Environment
- Securing Clean Growth and Innovation
- Action to Reduce Emissions from Transport
- Action to Reduce Emissions at Home
- Action to Reduce Emissions from Industry
- Leadership at all Levels

The pollutants addressed are fine particulate matter (PM_{2.5}), ammonia (NH₃), nitrogen oxides (NO_x), sulphur dioxide (SO₂) and non-methane volatile organic compounds (NMVOCs). The consultation is intended to inform the final Clean Air Strategy and detailed National Air Pollution Control Programme, to be published by March 2019.

General comments

While the Strategy proposes a range of promising, and in some cases ambitious ideas, overall the measures are not detailed, mainly in the form of pledges, with limited timescales included.

The most notable omission in the Clean Air Strategy is any detailed discussion of road transport, which contributes approximately 57% of NO_x, 56% of PM₁₀ and 69% of PM_{2.5} emissions in the City of London. Though some measures to reduce emissions from transport are included, they are not covered in any detail within the report. The draft strategy instead refers to the Clean Growth and Industrial Strategies and more relevantly a forthcoming 'Road to Zero' Strategy for dealing with emissions from Road Transport along

with its NO₂ plan 'Tackling nitrogen dioxide in our towns and cities'. However, the later document was heavily criticised for the absence of concrete proposals, and its lack of recognition of the important role that national government has in delivering improvements.

Significantly, the draft strategy proposes new legal powers for local government to deal with non-transport sources of pollution. It also proposes regulations to improve existing powers to deal with prohibited cheat devices for road vehicles. The government also promises to compel manufacturers to recall vehicles and machinery for any failures in their emissions control system and make tampering with an emissions control system a legal offence.

Other key proposals of the draft strategy are:

- To tackle fine particulate matter (PM_{2.5}), by halving the number of people exposed to levels greater than 10µg/m³.
- To create a new statutory framework for Clean Air Zones (CAZ) to simplify current arrangements regarding AQMAs, CAZs and Smoke Control Areas
- To tackle wood burning by prohibiting the sale of the 'most polluting' fuels and introduce cleaner stoves
- Examine the use of non-road 'red' diesel;
- Working with the devolved administrations to develop a detailed National Air Pollution Control Programme as required under the National Emissions Ceilings Directive for publication in 2019.

Annex A: Clean air strategy consultation questions

1. Understanding the problem

Q1. What do you think about the actions put forward in the understanding the problem chapter? Please provide evidence in support of your answer if possible.

The information included within this section of the report is very general in nature. The source apportionment data included describes emission sources in broad categories nationally, without quantifying the contribution that each source makes to areas exceeding air quality standards, or the extent of the impact on health. Overall the sources are inadequately described and the document down plays the role of road transport. For example, data included for primary PM_{2.5} indicates that 38% is from domestic wood and coal burning, while 'industrial' combustion accounts for 16%. No further details are provided. These estimates are considerably different to the London Atmospheric Emissions Inventory (LAEI) figures for London as a whole, with approximately 2% arising from coal, solid fuels and oil from commercial and domestic fuels, with a far greater contribution of 59% from road transport. While methodology will account for some differences, there is concern that the data is not helpful in contributing to an understanding of the problem.

Increased transparency by bringing local and national monitoring in one location is welcome. The validity of good quality local data collected by local authorities must be recognised.

Q2. How can we improve the accessibility of evidence on air quality, so that it meets the wide-ranging needs of the public, the science community, and other interested parties?

The City Corporation is consulting with its communities on how they would like to receive information about air quality. This could be undertaken nationally via a similar survey on the Defra web site. National campaigns can also contribute to a greater understanding of the issue, as well as promoting actions that individuals can make, not only to limit exposure but also reduce air pollution. The promised 'Green Great Britain Week' in autumn 2018, to engage the public on air quality and climate change could be an opportunity to do this.

2. Protecting the nation's health

Q3. What do you think of the package of actions put forward in the health chapter? Please provide evidence in support of your answer if possible.

Tackling fine particulate matter (PM_{2.5}), by halving the number of people exposed to levels greater than 10µg/m³ is welcome as a significant measure to improve health. However, this should be more ambitious by adopting the level as a standard.

The delivery of a personal air quality messaging system for the public, particularly people vulnerable to air pollution about air quality and providing clearer health advice during episodes is welcome. This should be developed based on existing apps and texting services such as the City of London free smart phone App: CityAir.

A comprehensive set of new powers designed to enable targeted local action is also welcome, for example the ability to set emission limits for combustion plant together with appropriate funding for enforcement. It is noted that no timescales have been proposed, nor details of additional funding to enable the effective use of any such powers.

Q4. How can we improve the way we communicate with the public about poor air quality and what people can do?

Producing appraisal tools that enable the health impacts of air pollution to be considered in relevant policy decisions is crucially important. Ensuring that these assessments are undertaken and follow a consistent approach, whilst considering the full costs and benefits, is essential. However, how would this be prescribed and enforced?

The comment, stating that air quality is almost always more polluted indoors compared to outside, without any explanation or qualification, is misleading and a gross generalisation. Indoor air quality is dependent on the indoor (and outdoor) sources of pollution i.e. the combustion appliances, cleaning products, and new furnishings present, or in use and will therefore be dependent on the specific circumstances in each location. Therefore, ensuring appropriate and accurate information is provided is critically important.

3. Protecting the environment

Q5. What do you think of the actions put forward in the environment chapter? Please provide evidence in support of your answer if possible.

In response to the proposal of monitoring habitats, we urge that a wide range of habitats and sufficient duplicate habitat types are monitored to provide meaningful data. Another piece of work that is required is the identification of thresholds of criteria that indicate detrimental change in habitats that can be relatively easily identified in the field. When any **one** threshold is reached any additional planning applications would have to demonstrate a zero impact on the site. The criteria should not try to ascribe the effects to one particular pollutant, but to take the change itself as sufficient evidence that environmental factors are driving this change, even if it is likely to be climate change, to which pollution is a contributor. Therefore, it is critical that the habitat monitoring data is shared with Natural England regional officers dealing with planning.

Habitat monitoring is already carried out for Sites of Special Scientific Interest. This data should be easily available to local authority planning officers especially in a mapped format so that the information is used in regional planning and development decision making. It would also be useful to encourage councils to incorporate favourable condition monitoring into natural capital and natural asset mapping.

Q6. What further action do you think can be taken to reduce the impact of air pollution on the natural environment? Where possible, please include evidence of the potential effectiveness of suggestions.

Whilst the emissions of ammonia from road transport are declining with the increase of lower emitting catalytic converters in the fleet, it is still important for the requirement to predict ammonia emissions as part of the evaluation of a new road infrastructure scheme, as part of the methodology in the Design Manual for Roads and Bridges. This is especially important where traffic idling is anticipated because the highly reactive chemical nature of ammonia contributes to high deposition rates of nitrogen at the roadside per $\mu\text{g m}^{-3}$ of concentration in air compared to NO_2 (Gadsdon et al. 2009 Quantifying local traffic contributions to NO_2 and NH_3 concentrations in natural habitats, Environmental Pollution 157, 2845-2852) and Plant Life has highlighted the importance of road verges for plant biodiversity and the threats they face <https://www.plantlife.org.uk/uk/about-us/news/road-verge-marauders>

4. Securing clean growth and innovation

Q.7. What do you think of the package of actions put forward in the clean growth and innovation chapter? Please provide evidence in support of your answer if possible.

Recognising the need for new technology and innovation is important. However, supporting existing clean technologies has been lacking and inconsistent in the past. Other than referring to electric vehicles, energy efficient products, and abatement technologies, little detail is provided on these current technologies and their promotion. The focus of this section appears to be on securing future improvements with insufficient emphasis on dealing with existing problems such as energy and heat generation using Combined Heat and Power (CHP) plant and biomass in urban areas, especially in light of the high proportion of $\text{PM}_{2.5}$ attributed, in part, to wood burning. Non-combustion technologies should be promoted (heat pumps, photovoltaic and solar panels).

Better links to the Clean Growth Strategy is important and, although the section recognises some of the conflicts created in the past, the issue is insufficiently addressed. Measures such as those previously cited to reduce carbon have set back air quality improvements and in localised areas have made air quality worse. For example, the strategy only now proposes to consult on the exclusion of biomass from the Renewable Heat Incentive in urban areas that are on the gas grid (with the focus appearing to relate to particle pollution only and not NO_x emissions too).

The strategy does, however, also propose a cross-departmental review into the role of biomass in future policy for low carbon electricity and heat, focusing on the air quality impacts. This review alongside an approach where both carbon and air pollutant emission reduction are considered together is welcome.

The strategy does not refer to the air quality impacts of past policies that encouraged CHP plant and electricity generation in urban areas. Nor does it consider the impact of the continuing growth of this sector, or the use of emergency diesel generators for electricity generation. Further innovation is required across a spectrum of heat and energy provision, especially to discourage the use of diesel and oil fuels in this way.

The government promises to review whether the existing fuel duty rates for alternatives to petrol and diesel are appropriate and has launched a call for evidence on non-road mobile machinery usage particularly on the use of red diesel and the update of cleaner technologies. This is welcome.

Q8. In what areas of the air quality industry is there potential for UK leadership?

Zero emission vehicle technology and infrastructure. The City Corporation is currently trialling an all-electric refuse collection vehicle built in the UK. Zero emission refrigeration units. Zero emission energy generation plant.

Q9. In your view, what are the barriers to the take-up of existing technologies which can help tackle air pollution? How can these barriers be overcome?

Additional costs can be a barrier to the take-up of existing technologies to tackle air pollution, as can uncertainty about performance of these technologies and availability of alternative fuel sources.

National planning guidance is required which promotes non-combustion technologies in new development. Demonstration projects to demonstrate how such technology works should also be promoted and more incentives provided.

Q10. In your view, are the priorities identified for innovation funding the right ones?

Yes, we support the priorities identified for innovation funding, specifically:

- particulate matter from tyre, brake and road wear
- zero and ultra-low emission heavy goods vehicles
- low and zero emission options for non-road mobile machinery, which we are currently looking in to.

5. Action to reduce emissions from transport

Q11. What do you think of the package of actions put forward in the transport chapter? Please provide evidence in support of your answer if possible.

This section does not detail many of the measures it intends to take but references the Clean Growth Strategy published in 2017 which sets out a range of policies and proposals including measures which will accelerate the shift to low carbon transport whilst promoting industrial opportunity and cleaner air. It also promises the publication of 'Road to Zero' a strategy for reducing vehicle emissions.

A number of actions proposed in this strategy such as the new Regulations to enhance powers to deal with vehicles that have a defeat device are considered essential.

The strategy would benefit from outlining timescales for this. This should include powers for dealing with diesel vehicles that are driven without the additive AdBlue which renders the emission control system redundant, and diesel vehicles driven without an appropriate particle trap.

The proposal to work with international partners to develop new international regulations for dealing with particle emissions from tyre and break wear is welcome.

Measures to tackle maritime emissions are also welcome. This includes a consultation by March 2019 with options for extending current Emissions Control Areas to UK waters.

The draft strategy proposes that English Ports will be required to produce Air Quality Strategies. The City Corporation has worked with the Port of London Authority in the development of their strategy. A council will also be set up to drive uptake of cleaner technologies which is very welcome.

The section on modal shift refers to freight mode-shift grants currently available and states the government's support for industry research into gaining a better understanding of the impact of shifting more freight from road to rail. This should also include an examination of making greater use of cleaner low emission river transport.

We welcome the transition to low emission public transport and measures to encourage active travel which achieves a shift to walking and cycling for short journeys.

Q12. Do you feel that the approaches proposed for reducing emissions from Non-Road Mobile Machinery (NRMM) are appropriate or not? Why?

Measures include granting powers to impose minimum emission standards on NRMM, together with the introduction of compliance checks. Both are welcome. This should support the emission standards devised by the Mayor of London and enforced by London Boroughs and the City of London Corporation. Overall the approach proposed appears appropriate.

6. Action to reduce emissions at home

Q13. What do you think of the package of actions put forward to reduce the impact of domestic combustion? Please provide evidence in support of your answer if possible.

There has been a lack of information and a strategy for tackling indoor air quality nationally, so this is a welcome acknowledgement of the problem however there is no mention of the NICE Guidance: Indoor air quality at home, which is currently expected to be published in September 2019. The guidance is intended for a wide range of users including members of the public, local authorities, landlords, health and social care professionals. This guidance should be brought forward as soon as possible

In describing emissions in the home, the section omits reference to NO_x emissions, citing only particulate matter, Non Methane Volatile Organic Compounds (NMVOCs) and sulphur dioxide (SO₂). Combustion activities in the home, for example, gas cooking, gas heating appliances; wood stoves and open fires can also lead to high NO_x levels without adequate ventilation.

Actions to reduce the impact of domestic combustion, such as prohibiting the sale of polluting fuels is welcome, however 'most polluting' needs to be defined clearly. The proposal appears to consist of extending the 2% sulphur limit currently applied to fuels for sale in Smoke Control Areas to of all solid domestic fuels. Further improvements should be sought. It is also proposed that only the cleanest stoves will be available for sale by 2022. However, these are based on Ecodesign standards for particulate matter and carbon monoxide. Whilst this is a significant improvement on the existing system of limiting dark

smoke, new standards should also place limits on NO_x and SO₂ emissions. Consideration should also be given to prohibiting the use of stoves in cases of poorly sited flues, with inadequate dispersion located in Air Quality Management Areas, Clean Air Zones or densely occupied and built up areas. Building Regulation requirements for minimum distances should be amended to deal with the considerable local problems caused by ill-sited flues. More needs to be done to provide education on the correct use of appliances and ensuring that stoves and appliances are serviced according to manufacturer's instructions.

New powers for Local Authorities are essential and long overdue to replace outdated ineffective legislation. However, no timescale has been proposed, which is a concern.

The City of London Corporation is considering options for local legislation to tackle emissions from a range of combustion plant including Boilers, CHP, NRMM, biomass, solid fuel and generators. In addition, the Clean Air Bill a Private Member's Bill (which requires the Secretary of State to set, measure, enforce and report on air quality targets and to mitigate air pollution) was first presented to Parliament in November 2017 and is expected to have its second reading shortly. A further Bill, Clean Air (Human Rights) Bill had its first reading in the House of Lords on 5 July 2018.

A further problem which needs to be addressed is the growth of wood burning stoves and barbeque grills in restaurant premises which produce smoke.

Q14. Which of the following measures to provide information on a product's non-methane volatile organic compound content would you find most helpful for informing your choice of household and personal care products, and please would you briefly explain your answer?

- "A B C" label on product packaging (a categorised product rating for relevant domestic products, similar to other labels such as food traffic light labels)
- information on manufacturer website
- leaflet at the point of sale
- inclusion in advertising campaigns
- other option

Prominent, very simple product labels should be used to make it clear what chemicals are generated to enable shoppers to make informed decisions about their purchases; this could be supplemented with further information in the form of leaflets at point of sale and or on manufacturers websites. A simple traffic light type system could be very effective.

Q15. What further actions do you think can be taken to reduce human exposure from indoor air pollution?

Reduce the range of chemicals, particularly those with the most harmful effects, in products intended for household use.

7. Action to reduce emissions from farming

Q16. What do you think of the package of actions put forward in the farming chapter? Please provide evidence in support of your answer if possible.

The City Corporation does not have any specific comments on this although we welcome actions that will reduce emissions to atmosphere and best practice techniques should be required.

Q17. What are your preferences in relation to the 3 regulatory approaches outlined and the timeframe for their implementation: (1) introduction of nitrogen (or fertiliser) limits; (2) extension of permitting to large dairy farms; (3) rules on specific emissions-reducing practices? Please provide evidence in support of your views if possible.

The City Corporation does not have any specific comments on this although we welcome actions that will reduce emissions to atmosphere and best practice techniques should be required.

Q18. Should future anaerobic digestion (AD) supported by government schemes be required to use best practice low emissions spreading techniques through certification? If not, what other short-term strategies to reduce ammonia emissions from AD should be implemented?

Please provide any evidence you have to support your suggestions.

The City Corporation does not have any specific comments on this although we welcome actions that will reduce emissions to atmosphere and best practice techniques should be required.

8. Action to reduce emissions from industry

Q19. What do you think of the package of actions put forward in the industry chapter? Please provide evidence in support of your answer if possible.

There appears to be no new proposals for larger industrial facilities only a reiteration of existing framework, Best Available Techniques, (BAT) and a promise to consult and review the framework, including BAT.

We welcome an ongoing review of emission standards for the recently introduced legislation transposing the Medium Combustion Plant Directive covering combustion plant and generators between 1-50 MWth (Mega Watts Thermal). Unfortunately, the long-time scales involved with tackling such combustion plant will delay improvements in emissions from this sector which is an increasing problem in urban areas.

There is also a plan to close the regulatory gap of plant between 500kW-1MW. This is very welcome for the City of London, which has a large number of plant of this size.

Q20. We have committed to applying Best Available Techniques to drive continuous improvement in reducing emissions from industrial sites. What other actions would be effective in promoting industrial emission reductions?

A move away from biomass as a source of fuel for electricity generation and support for the trial of zero emission technology, particularly zero emission energy generation.

Q21. Is there scope to strengthen the current regulatory framework in a proportionate manner for smaller industrial sites to further reduce emissions? If so, how?

Continuous improvement should be sought by supporting and encouraging innovation in smaller industries and plant that help to reduce emissions. Greater clarification

is required and dealing with emissions from smaller sites were overlapping regulatory arrangements exist.

Q22. What further action, if any, should government take to tackle emissions from medium plants and generators? Please provide evidence in support of your suggestions where possible.

All new plant should be required to meet a specified emission limit with a certificate of compliance from the local authority. For example:

- Gas boilers > 400kW : NOx emission limit of 40 mg/kWh
- Naturally-aspirated (stoichiometric) Combined Heat and Power plant (≤ 500 kWe): NOx emission limit 50 mg/Nm³
- Turbocharged CHP (>500 kWe): NOx emission limit 25 mg/Nm³.

The City Corporation is currently investigating options for controlling emissions from all combustion plant in the Square Mile.

Q23. How should we tackle emissions from combustion plants in the 500kW-1MW thermal input range? Please provide evidence you might have to support your proposals if possible.

See answer to Q22.

Q24. Do you agree or disagree with the proposal to exempt generators used for research and development from emission controls? Please provide evidence where possible.

We would need further details on this in order to provide an appropriate comment.

9. Leadership at all levels (local to international)

Q25. What do you think of the package of actions put forward in the leadership chapter? Please provide evidence in support of your answer if possible.

The City Corporation is very pleased to see a proposal for new legal powers for local authorities for improving air quality. We have been asking for this for some time. The proposal should include timescales and an offer of financial support to deliver the additional work. We also welcome a single designation for Air Quality Management Areas, Clean Air Zones and Smoke Control Areas. You may wish to consider Air Quality Improvement Area.

Q26. What are your views on the England-wide legislative package set out in section 9.2.2? Please explain, with evidence where possible.

A more coherent legislative framework is essential to bring about improvements in emissions. Appropriate resources must also be provided to local authorities and other regulatory bodies to ensure these powers can be adopted.

Compelling manufacturers to recall vehicles and machinery for failures in their emission control system is welcome, as is making tampering with an emission control system a legal offence.

Proposals for biomass installations are to consider tighter emission standards. However, the use of wood for generating electricity and heat should be discouraged due to its contribution to national emissions of particulate matter. Applying tighter emission standards for biomass plant, along with regulation of combustion plant between 500KW – 1MWth, and improved emission standards for diesel powered NRMM, are essential.

Q27. Are there gaps in the powers available to local government for tackling local air problems? If so, what are they?

A main area of concern is the Government's intention to rely on local government to tackle nitrogen dioxide from roads as a local issue, rather than dealing with the problem with high emissions from diesel vehicles nationally.

Without national measures in place to tackle the wider issues of real world transport emissions, coupled with the disregard of vehicle manufacturers to reduce emissions effectively from diesel vehicles and also a lack of ambition to bring forward the availability of affordable low emission vehicles, measures such as Clean Air Zones will only have minimal impact or move the problem elsewhere.

Q28. What are the benefits of making changes to the balance of responsibility for clean local air between lower and upper tier authorities? What are the risks?

See answer to Q29

Q29. What improvements should be made to the Local Air Quality Management (LAQM) system? How can we minimise the bureaucracy and reporting burdens associated with LAQM?

The City of London Corporation is within the London Local Air Quality Management system which is overseen by the Mayor of London. The Mayor of London consults with London Boroughs and the City of London over any changes.

10. Progress against targets

Q30. What do you think of the package of actions in the strategy as a whole?

Many positive actions and legislative changes are proposed. Some of these are long overdue. Several of the issues are well documented and understood and therefore should have been tackled sooner. As the proposals are not detailed, and lack timescales, there is a concern that they could take many years to implement. The City Corporation would like to see timescales for implementation in the final version.

Q31. Do you have any specific suggestions for additional or alternative actions that you think should be considered to achieve our objectives? Please outline briefly, providing evidence of potential effectiveness where possible.

The strategy would benefit from proposals to develop and promote non-combustion alternatives for heat and electricity generation. It would also benefit from considering the air quality impacts of encouraging CHP in urban areas and the use of emergency diesel generators for electricity generation more widely.

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