

REPORT TO: ENVIRONMENT COMMITTEE – 23rd SEPTEMBER 2013

REPORT ON: CONSULTATION ON REVIEW OF LOCAL AIR QUALITY MANAGEMENT
IN SCOTLAND-CONSULTATIONS BY THE SCOTTISH GOVERNMENT

REPORT BY: DIRECTOR OF ENVIRONMENT

REPORT NO: 394-2013

1.0 PURPOSE OF REPORT

- 1.1 To seek Committee's approval for the Council's proposed response to the above Scottish Government consultation exercise.

2.0 RECOMMENDATIONS

- 2.1 It is recommended that Committee approves the attached response and remits the Director of Environment to submit this to the Scottish Government accordingly.

3.0 FINANCIAL IMPLICATIONS

- 3.1 There are no financial implications arising from this report.

4.0 MAIN TEXT

- 4.1 The Scottish Government has prepared a consultation paper to invite discussion on the best way to address shortcomings identified in Local Air Quality Management (LAQM) delivery. Although air quality is a devolved matter, LAQM is currently operated to a large extent on a joint basis by the four UK administrations, as many of the issues and challenges are similar across the UK. This consultation focuses on LAQM in Scotland, the other are administrations conducting their own consultation exercises
- 4.2 The Environment Act 1995 and associated regulations established the Local Air Quality Management system (LAQM), under which all local authorities in Scotland are required to regularly review and assess air quality in their areas against objectives for several pollutants of particular concern for human health. If this work indicates that any objective will not be achieved by the required date, the authority concerned must declare an Air Quality Management Area and produce an action plan outlining how it intends to tackle the issues identified.
- 4.3 LAQM has been operational since 1997 but has not been comprehensively reviewed during that time. There is a consensus that such a review is overdue and that the system could be overhauled in a number of ways to refresh it and increase its effectiveness. The consultation contains a range of proposals for doing this and the Scottish Government is seeking views on these proposals.
- 4.4 The key issues identified within the consultation are:
- LAQM and EU Reporting;
 - Public Health;
 - Streamlining Requirements; and
 - Review of EU Air Quality Legislation.
- 4.5 The Scottish Government invited responses to the consultation by 6th September 2013, however an extension to the submission deadline to the 24th September has been agreed. Appendix 1 sets out the proposed responses to the consultation questions posed.

5.0 POLICY IMPLICATIONS

- 5.1 This report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-poverty, Equality Impact Assessment and Risk Management. There are no major issues.

6.0 CONSULTATIONS

- 6.1 The Chief Executive, Director of Corporate Services, Head of Democratic and Legal Services and Director of City Development have all been consulted in relation to this report.

7.0 BACKGROUND PAPERS

- 7.1 None

Ken Laing
Director of Environment

Kenny Kerr
Head of Environmental Protection

9th September 2013

APPENDIX 1

Review of Local Air Quality Management in Scotland



RESPONDENT INFORMATION FORM

Please Note this form must be returned with your response to ensure that we handle your response appropriately

1. Name/Organisation

Organisation Name

Dundee City Council

Title Mr ☒ X

Ms ☐

Mrs ☐

Miss ☐

Dr ☐

Please tick as appropriate

Surname

Laing

Forename

Ken

2. Postal Address

Director of Environment Department

Environment Department

353 Clepington Road

Dundee

Postcode DD3 8PL

Phone 01382 434729

Email

ken.laing@dundeecity.gov.uk

3. Permissions - I am responding as...

Individual

/ Group/Organisation

☐

Please tick as appropriate

☒ X

(a) Do you agree to your response being made available to the public (in Scottish Government library and/or on the Scottish Government web site)?

Please tick as appropriate

☐

(b) Where confidentiality is not requested, we will make your responses available to the public on the following basis
Please tick ONE of the following boxes

Yes, make my response, name and address all available

☐

Yes, make my response available, but not my name and address

☒ or

Yes, make my response

☒ or

(c) The name and address of your organisation *will be* made available to the public (in the Scottish Government library and/or on the Scottish Government web site).

Are you content for your response to be made available?

Please tick as appropriate ☒ X Yes

☐ No

and name available, but not
my address

(d) We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

Please tick as appropriate

☒ Yes

☐ No

CONSULTATION QUESTIONS

Q1a) Do you agree that these are the key issues which any changes to LAQM should take account of?

b) Are there any other key issues which the Scottish Government should consider as part of the review?

Comments

- 1a Yes, these are the main key issues that for which any changes to LAQM should take account.
- 1b Other key issues which the Scottish Government should consider as part of the review should include:
- One of the reasons LAQM Action Planning may not be delivering is that the expected reductions in exhaust emissions for new EURO Standard vehicles has been slower in coming into effect and encouragement to speed this process up would assist;
 - A review of the National Air Quality Strategy may also be helpful, including an analysis of what has been attempted, what has been successful/unsuccessful and an audit of the roles & responsibilities of different Govt. departments with respect to improving air quality. The review should also consider identifying and considering the consequences of changing those policies that have 'worsened' air quality, e.g. the policies that incentivise the uptake of diesel cars. Low carbon electric vehicles and the use of sustainable active travel policies will make a real difference; and
 - The implications of DEFRA adopting a different approach to LAQM for England, e.g. how the production of guidance and tools for Scottish local authorities will be undertaken/funded, the potential differing expectations placed on businesses/stakeholders in AQMAs in Scotland if AQMAs are abolished in England.

Q2 Do you think the regulations covering LAQM and EU legislation should be merged? Please provide reasons for or against this approach.

Comments

No, the differences in the assessment requirements are such that it seems all LAQM monitoring and modelling that has been undertaken to date would be invalid and assessment of long term trends and progress of action plan measures would be lost.

Most existing monitoring equipment would need to be relocated, at additional expense. Scottish Local authorities have had the stricter PM₁₀ objectives since 2002 which, on occasion has led to some difficulties e.g. SEPA being unable to require regulated industries to meet the Scottish LAQM objective. However, the findings of the WHO's REVIHAAP report vindicates the adoption of a stricter PM₁₀ standard on public health grounds. It is possible that the review of the EU requirements may take this into account and if so, that may provide a more suitable opportunity to reconsider the stricter Scottish objectives.

Q3 Do you think we should retain the LAQM objectives for 1, 3-butadiene, SO₂ (15 minute), carbon monoxide and lead? Please state your reasons for or against, including potential implications.

Comments

Yes, the reporting for the listed LAQM objectives is not overly burdensome as most are associated with industrial processes whose locations and activities are known. However retaining the requirement to report ensures that any new installations, significant changes in emissions or new relevant exposure near to such industry are appropriately assessed in order to protect public health.

Q4 What do you think are the basic air quality information requirements for local authorities and central government to meet their obligations under LAQM and EU legislation?

Comments

Local air quality monitoring data is fundamental for LAQM review and assessment work. This is also necessary in assessing the success, or otherwise, of action plan measures.

Traffic information in appropriate formats, particularly for 'hotspot' areas is always necessary and can include classified AADTs, vehicle speeds, queue lengths, traffic signal timings etc. This information is resource intensive to prepare and has to be separately commissioned.

For assessment of other sources, data for and location of solid fuel burning is required but very difficult to collate. Knowledge of changes to emissions from local industrial sources requires input from SEPA.

For air dispersion modelling we have also had to acquire data for building heights and road gradients. Also meteorological data is required for air dispersion modelling; this is still currently available from the Met. Office, and for Dundee we favour Leuchars data. Depending on LAQM action plan measures it may be necessary to collect other related information, e.g. introduction of a low emission zone could require collection of vehicle number plate information.

It is difficult to gauge whether central government are meeting their EU obligations for provision of basic air quality information for although the Directive details specific monitoring requirements it also allows member states to use unspecified modelling assessments in conjunction with fewer monitoring sites. The UK Govt. have chosen the latter approach (Pollution Climate Model, PCM) which in principle should meet with the assessment criteria for the protection of human health established in Annex III Section B & C of the Directive 2008/50/EC. It is apparent that the model resolution is unable to identify urban hotspots where large populations live closer to busy A roads than modelled in the PCM. In addition it is unclear how the model assesses short term objectives.

A reliance on modelling brings with it a need for other basic air quality information, as it requires robust supplementary evidence of atmospheric emissions from pollutant sources. It is known that certain pollution sources, e.g. re-suspended road dust, fugitive emissions from bonfires & small waste burning, domestic heating etc., remain poorly characterised.

Q5 Do you agree there is a case for streamlining reporting, altering frequency of the report cycle etc.? If so, how should this be done?

Comments

Yes, a revamped annual report encompassing the relevant elements from the USA checklist criteria in TG.09 would be better. The April timescale has always been challenging and a more realistic time-scale would be preferable, e.g. July.

Q6 Can Scottish and UK data help to reduce the level of assessment required by local authorities and would this be appropriate?

Comments

Yes, however it must be recognised that processes and development applications will often contain site specifics which may need individual specific assessment.

In addition to the LAQM review and assessment process, local information is important for development management decisions and Action Planning. The PCM model used for National reporting does not necessarily predict concentrations where there is relevant exposure e.g. some of the roads modelled in the PCM for Dundee City Council at 4 metres from the kerb have relevant exposure closer than this. Also, the PCM model does not appear to have the level of detail, resolution and hence validity to inform assessment of the outcomes of action plan measures.

Q7 How can work undertaken by local authorities be used more effectively to support UK Government reporting to the European Commission?

Comments

The local monitoring, modelling and action plan measures are targeted at local hotspots and may not be relevant to exceedance areas identified through the PCM model. However, it may be possible for future LAQM air dispersion modelling to include prediction of concentrations at "receptor points" which correspond to the 4 metre boundary set in the PCM model for the purposes of comparison.

Q8 Do you agree we should retain AQMAs?

Comments

Yes

Q9 Do you agree there needs to be more focus on action planning and delivery? Do you have any suggestions on how to improve delivery? What have been the main barriers to effective delivery to date?

Comments

Whilst there is a need to increase focus on delivery this should not be to the detriment of diagnosis. Without such robust diagnosis there is clearly a risk of "doing the wrong things". Both diagnosis and delivery should have equal status.

Lack of resources and public understanding and support means that Action Plans tend to focus on soft measures which are relatively easy to implement and don't cost too much. The majority of the hard measures that would show an improvement in air quality are beyond the scope of most local authorities and the limited funds available for action

planning.

To tackle air quality effectively it needs to be integrated into a wider range of policy drivers. To achieve the necessary collective response, for instance it would be helpful to extend statutory traffic management responsibility to include air quality.

Air quality requires to be promoted as a positive integral part of sustainable economic growth. This is challenging to overcome. Better understanding of the public health implications of poor air quality and the potential co-benefits in terms of climate change objectives may be helpful.

Q10 Do you agree that local authorities should be provided with more detailed advice and guidance on what action they can take to make their action plans more effective?

Comments

Yes, current guidance about action planning largely focusses on the process and is spread across a number of different documents. In the first instance collating the existing best practice guidance would be helpful.

Whilst there is unlikely to be a single action plan measure suitable for all hotspot areas local case studies highlighting the experiences of other local authorities would be helpful. Also tools that allow estimation of (air quality) emissions reductions associated with different action measures may allow for quantifiable comparisons between different action planning options.

Detailed guidance about effective actions that will/have been shown to improve air quality would be best but there is also merit in alerting local authorities to those measures which have proved to be unsuccessful. Technical guidance from the experts/industries about technological approaches/choices would be beneficial.

Effective action plans need buy-in and support from all stakeholders. The links between air quality and public health provide a means for engaging the attention of stakeholders and so maybe guidance on assessing the benefits of the action plan in public health terms could be helpful. Similarly there may be co-benefits for climate change objectives which could be assessed and highlighted through the action plan to engage stakeholders.

Q11 Do you agree that relevant information from local authority action plans should be included in central government reports to the EU?

Comments

Yes, if they contain appropriate measures. Also it is important to review the local action plans alongside the zone/agglomeration plans to make sure that the outcomes of measures will be complementary and not antagonistic.

Q12 Do you agree that a more emissions based focus on action planning would help to improve outcomes?

Comments

No, most local authorities with action plans have the ability to monitor pollutant concentrations and report on trends. Few local authorities have the data, technical expertise or the necessary tools required to establish and maintain local emissions inventories, or carry out emission reduction calculations.

Expected reductions in emissions from new Euro Standards are slower in materialising and

a continued push on electric vehicles and hydrogen fuel technologies is required.. Measures targeted at emissions reduction on an area wide scale may show little or no improvement of measured concentrations at local hotspots and in some cases could adversely impact on these areas.

For certain action plan measures for hotspots, emissions reduction could be used as a surrogate indicator, but there is a need to maintain reporting of monitored concentrations to maintain the link to the health based standards and objectives.

Q13 What role do you see for local authorities in meeting PM_{2.5} obligations?

Comments

The LAQM regime doesn't currently include obligations for PM_{2.5}. There are two PM_{2.5} obligations in the EU Directive:

1. For the PM_{2.5} limit value: - the rationale of the LAQM regime for identifying hotspots and planning for necessary improvements where breaches are identified could be applied to the PM_{2.5} limit value. However what role Local authorities could take, other than additional monitoring in existing PM₁₀ hotspots, is unclear as the pollutant sources of the differing PM fractions are similar, albeit at different ratios. This could be an expensive undertaking as current monitoring equipment that is reference equivalent for PM₁₀ has not necessarily been demonstrated to be reference equivalent for PM_{2.5}.
2. For the exposure reduction target: - this requires monitoring of PM_{2.5} at additional background locations in urban areas with over 100,000 people. Given that there are background PM_{2.5} monitoring sites in Aberdeen, Edinburgh and Glasgow, Dundee remains the only Scottish urban area of over 100,000 people without a background PM_{2.5} monitor. However, without a 2010 baseline value for PM_{2.5} it is not clear whether it would be legitimate to embark on background monitoring at this stage for the purposes of EU PM_{2.5} obligations.

As the public health impacts have a close association with exposure to the finer particulate matter, a required responsibility and ownership of PM_{2.5} monitoring data for such urban areas may be useful for informing/educating policy makers in order to support more widespread holistic reduction measures for primary PM_{2.5}. However it's debatable whether the LAQM process is appropriate for review and assessment of improvements to background PM_{2.5} concentrations owing to the diffuse nature of background pollution. Consequently any measurable improvements to background concentrations may be indistinguishable from, say, the effects of meteorology and thus not easily attributable to the implementation of a local authority's AQAP.

Q14 Are there specific measures that authorities could take to reduce PM_{2.5} that differ from those already being undertaken for PM₁₀?

Comments

It is unlikely that mitigation measures will vary significantly for PM_{2.5} and PM₁₀ although cases may well be site specific. Difficult to see what additional measures local authorities could take to reduce PM_{2.5} that wouldn't be undertaken for PM₁₀ in hotspot areas.

Q15 What approaches and strategies are currently being used to communicate the health impacts of poor air quality? How can these be built upon and improved to strengthen the message?

Comments

Currently a web-based approach has been used along with a media campaign and primary school educational programme to target traffic on the north-west arterial route into Dundee. The educational campaign has obtained grant funding with match funding from the council, to be extended to all primary schools (P5-P7) in Dundee. The workshops focus on promoting active and sustainable travel, reducing carbon and air pollution emissions, reducing congestion, improving road safety and improving the health of the children, a key target group.

These programmes should be continued with an emphasis on the use of sustainable active travel and the promotion of electric vehicles and hydrogen cell technologies.

Q16 What role should the Scottish Government be playing in promoting the links between air pollution and public health?

Comments

Closer liaisons with the Royal Environmental Health Institute of Scotland, Health Protection Scotland and the Chief Medical Officer for Scotland.