

Transport and Environment Committee

10.00am, Thursday, 8 December 2022

Revision to the Air Quality Action Plan – Draft for Consultation

Executive/routine Wards Council Commitments	Executive All
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1. Recommendations

- 1.1 It is recommended that Transport and Environment Committee:
- 1.1.1 Approves the draft Air Quality Action Plan (AQAP) for statutory consultation and engagement. As noted in the report, this will be carried out alongside consultation on the Circulation Plan and other action plans, and will be for a period of 12 weeks;
 - 1.1.2 Notes that the revised AQAP will, once approved following consultation, represent the Council's new statutory plan for reducing concentrations of air pollutants and exposure to air pollution across the city; and
 - 1.1.3 Notes that the draft AQAP has been created in tandem with emerging placemaking and mobility-led strategies and action plans to maximise delivery of relevant strategic objectives in the Council's City Mobility Plan, 2030 Climate Strategy, and emerging City Plan 2030.

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Revision to the Air Quality Action Plan – Draft for Consultation

2. Executive Summary

- 2.1 This report presents a draft Air Quality Action Plan (AQAP) for approval to proceed to statutory consultation and engagement.

3. Background

- 3.1 Links between poor air quality and the adverse impacts on human health are now well recognised by scientific evidence, in terms of premature death and on-set of disease. It is widely accepted that outdoor air pollution causes damage to human health across a wide range of conditions, from pre-birth to old age.
- 3.2 Each year in the UK, around 40,000 premature deaths are attributable to exposure to outdoor air pollution which plays a role in many of the major health challenges of our day. Based on modelling, the estimated mortality burden on the population in Scotland in 2010 showed that there were around 2,000 premature deaths and a total of around 22,500 life years lost across the population which can be attributed to anthropogenic (man-made) fine particle pollution. In Edinburgh, this can be related to 205 premature deaths and 2,300 life-years lost.
- 3.3 Air pollution also incurs economic costs across a range of sectors, predominantly through health care costs, workdays lost, and the deterioration of the environment and buildings estimated at £20 billion per year (but could be as much as £54 billion).
- 3.4 Local authorities are obliged to regularly review and assess air quality through the Local Air Quality Management process. The main local pollutants of concern are nitrogen dioxide (NO₂) and fine particles (PM_{2.5} and PM₁₀). Where a risk is identified, the local authority must declare an Air Quality Management Area (AQMA) and develop an AQAP, which details how the air pollution problem will be tackled. Appendix 1 sets out the air quality objectives for local air quality pollutants.
- 3.5 Air quality action plans are a statutory requirement under the Environment Act, as a mechanism for local authorities to address the areas of poor air quality identified in AQMAs.

- 3.6 The Council's current AQAP 2010 requires a full update to fulfil these statutory requirements, reflect changes in policy (at local, Scotland and UK level) and recognise new significant actions, such as the Low Emission Zone.

4. Main report

Current Status of Air Quality in Edinburgh

- 4.1 The Council has declared six AQMAs, five for breaches of the pollutant nitrogen dioxide (NO₂) objectives and an AQMA for fine particulates (PM₁₀).
- 4.2 Road traffic is by far the greatest contributor to the high concentrations of NO₂ in the city. The AQMA at Salamander Street (declared for PM₁₀ exceedances) is due to other fugitive and industrial sources as well as traffic. Domestic and commercial space heating will also contribute to NO₂ and PM₁₀ concentrations in the city.
- 4.3 In light of the COVID-19 pandemic lockdowns, and the cumulative effect this had on traffic flows and resultant lower NO₂ levels, analysis of pollution trends should be treated with caution. Therefore, consideration of recent pre-pandemic levels has been the focus of the Plan, as this is more likely to accurately reflect the current and immediate future NO₂ situation.
- 4.4 Even without the effect of the pandemic, long term trends show concentrations of the main pollutants are decreasing at most locations across the city. This will be as a result of implementing the local measures in the current AQAP, measures by the Scottish Government (for example through the Cleaner Air for Scotland Strategy) and those at a wider scale, such as the reduction in road transport emissions (as newer vehicles which are subject to stricter emissions standards enter the fleet).
- 4.5 The improvements in air quality in Edinburgh have meant that the Council is taking steps to make changes to some of the AQMAs. The Scottish Government has approved the Council's intention to revoke the Inverleith Row AQMA and to amend the St John's Road AQMA.
- 4.6 Although there has been much improvement at St John's Road, in respect to achieving the hourly NO₂ objective, there remains a risk of breaching the annual mean objective. The NO₂ annual mean objective is also at risk of being breached in the Central and Glasgow Road AQMAs.
- 4.7 There have been reported improvements in the Great Junction Street AQMA since 2016, however the Council will consider revoking this AQMA once the impacts of the traffic changes associated with the tram operations and Leith's low traffic neighbourhood are fully realised.

Draft Air Quality Action Plan (AQAP)

- 4.8 The revised draft AQAP (draft Plan), which is presented in Appendix 2, outlines the actions that the Council aims to deliver between 2022 and 2027 to reduce concentrations of air pollutants and exposure to air pollution.

- 4.9 The revision is cognisant of relevant national, regional, and local policies, plans and programmes that have the potential to impact air quality. A review of the actions in the current AQAP to consider their success, or otherwise, has also informed the draft Plan (see summary in Appendix 3).
- 4.10 The draft Plan focuses on locations where there are current exceedances of the NO₂ statutory air quality objectives, and also identifies strategic measures which will ensure concentrations of several pollutants are reduced across Edinburgh, even below current statutory objectives. This approach is supported by the Cleaner Air for Scotland 2 (2021) Strategy (CAFS2).
- 4.11 The draft AQAP has been created in tandem with emerging placemaking and mobility-led strategies and actions plans including the Street-space Allocation Framework and action plans (covering active travel, public transport, road safety and parking). This approach maximises delivery of relevant strategic objectives in the Council's City Mobility Plan, 2030 Climate Strategy, and emerging City Plan 2030.
- 4.12 The draft AQAP is intended to complement the substantial work which has been undertaken in relation to the Low Emission Zone (LEZ), which was implemented on 31 May 2022 (and will be enforced from 1 June 2024).
- 4.13 Separately, further work will be undertaken in respect to the actions that are required to address localised Particulate Matter (PM₁₀) exceedances in the Salamander AQMA.
- 4.14 The draft Plan's actions are summarised under eight key themes and set out in Table 1: Air Quality Action Plan Actions (Appendix 4). Each action includes service areas/organisations responsible for delivery, expected benefit in terms of pollutant emission and/or concentration reduction (where possible), implementation timescale, and how progress will be monitored.
- 4.15 The draft Plan also recognises key issues that need to be prioritised.
- 4.16 It is considered that, with the implementation of the LEZ, the actions outlined in this draft Plan and wider Council commitments, the current air quality objectives for NO₂ will be achieved within the duration of the Plan.
- 4.17 There are several air quality policy areas that are outside of the direct control of the Council, such as vehicle emissions standards. The Council will therefore continue to work with regional and central government and key stakeholders on policies and issues beyond the Council's direct influence, particularly where local evidence can be provided to support and influence change.

5. Next Steps

- 5.1 If the recommendations of this report are approved, officers will proceed with the statutory consultation and engagement process on the draft AQAP. It is intended to progress this consultation alongside other relevant emerging placemaking and mobility-led strategies and action plans in 2023.

- 5.2 With the feedback from the consultation, a final AQAP will be produced. This will be presented to Committee for approval, prior to submission to the Scottish Government, under the requirements of the Environment Act 1995 (as amended).
- 5.3 The final approved AQAP will be subject to an annual review and appraisal of progress on actions. Progress each year will be reported in the Air Quality Annual Progress Reports (APRs) produced by the Council, as part of statutory Local Air Quality Management duties, which is submitted to Scottish Government, the Department of Environment, Food and Rural Affairs (UK Government). This will also be reported to the relevant Executive Committee.
- 5.4 In order to address specific issues regarding PM₁₀ exceedance within the Salamander Street AQMA, the steering group set-up to consider these issues will be reconvened and separate actions will be presented to Committee for approval in 2023.

6. Financial impact

- 6.1 An assessment of the cost and effectiveness of each action in the draft Plan is contained in Appendix 2.
- 6.2 The most significant cost action is the implementation of the LEZ, however, this action has prior Committee agreement and a separate approval process and is therefore not a direct financial impact for the purpose of this report.
- 6.3 Similarly, two actions under the Domestic Emissions theme which are rated high cost - the net-zero community pilots and whole house energy system retrofit. These are also considered in a separate approval process under the 2030 Climate Strategy.
- 6.4 The other high and medium cost actions (i.e. those greater than £50,000) include those relating to the strategic transport and public transport themes. The public transport actions will be further developed within the Public Transport Action Plan. Traffic management projects that relate to the strategic transport actions will also be further developed as specific projects are realised.
- 6.5 The exception is the St John's Road/Drum Brae South junction improvements, where investigatory work has commenced. The cost of this is estimated to be in the region of £500,000. Resourcing and programming of this action will be considered in the wider context of the Major Junctions Review that is currently underway.
- 6.6 The other actions proposed within the plan have been considered as low cost.
- 6.7 Funding to support the implementation of the plan can be sought from the Scottish Government's AQAP grant support scheme. Applications are invited annually and awarded on the basis of the total Scotland wide applications and available funding.
- 6.8 Improvements in air quality will not only bring public health benefits but economic benefit through reductions in health care costs, less workdays lost and less deterioration of the natural and build environment.

7. Stakeholder/Community Impact

- 7.1 The draft AQAP has been produced in collaboration with Council officers and external bodies, SEPA, Transport Scotland and NHS Lothian.
- 7.2 A statutory consultation must be undertaken by the local authority during the development of an AQAP in accordance with Schedule 11 of the Environment Act 1995 (as amended).
- 7.3 Consultation and engagement on the draft Plan is proposed to be undertaken as part of a combined exercise, alongside related emerging placemaking and mobility-led action plans and the Street-space Allocation Framework. This approach will maximise strategic understanding of the linkages and opportunities for coordinated delivery of actions. This is proposed to be undertaken over a 12-week period.

Integrated Impact Assessment and Strategic Environmental Assessment

- 7.4 An integrated impact assessment (IIA) has been undertaken in respect to the draft Plan (see Appendix 5 for a copy of the Interim IIA).
- 7.5 As the process of finalising the plan continues, the IIA will also be updated and finalised.
- 7.6 Findings of the IIA to date highlight that there will be positive impacts across all sectoral considerations – equality, health, well-being and human rights, environment and sustainability and economic impacts.
- 7.7 Impacts were also highlighted that have the potential to cause negative effects however all but one of these was able to be mitigated through education and communication and working effectively with key stakeholder and partner organisations. Potential negative impacts on commercial biomass providers could not be negated.
- 7.8 Further research is required to explore how gypsy/travelling communities could be impacted in respect to future policy development on solid fuel burning. The consultation process will allow investigations to be undertaken.
- 7.9 Overall, the consultation on the draft Plan will provide an opportunity for the public and stakeholders to engage with the Council in respect to all impacts.
- 7.10 A Strategic Environmental Assessment (SEA) screening process has also been undertaken for those actions not previously considered under the SEA requirements in other Council strategies (e.g. City Mobility Plan, 2030 City Plan or Climate Strategy). This concluded that the relevant actions were likely to have slight positive impacts, but the effects were not expected to be significant, and an SEA is not required.
- 7.11 A report detailing the screening assessment has been submitted to the SEPA Gateway for consideration, as per due process. Their response and any actions required will also form part of the final plan development.

8. Background reading/external references

- 8.1 [City Mobility Plan](#) (City of Edinburgh Council, 2021)
- 8.2 [Climate Strategy 2030](#) (City of Edinburgh Council, 2021)
- 8.3 [City Plan 2030 Proposed Plan](#) (City of Edinburgh Council, 2021)
- 8.4 Cleaner Air for Scotland 2 - Towards a Better Place for Everyone (2022) [Cleaner Air for Scotland 2 - Towards a Better Place for Everyone - gov.scot \(www.gov.scot\)](#)
- 8.5 Cognitive decline, dementia and air pollution - A report by the Committee on the Medical Effects of Air Pollutants (2022)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1090376/COMEAP-dementia-report-2022.pdf
- 8.6 Health Protection Scotland (2018) [HPS Website - Air Pollution and Health Briefing Note. Mortality Associated with exposure to fine particulate matter \(PM2.5 Attributable Mortality\) in Scotland](#)
- 8.7 Every breath we take: the lifelong impact of air pollution report by the Royal Collage of Physicians (2016) [Every breath we take: the lifelong impact of air pollution | RCP London](#)
- 8.8 Public Health England, Estimating Local Mortality Burdens associated with Particulate Air Pollution (2014) [PHE-CRCE-010 \(publishing.service.gov.uk\)](#)

9. Appendices

- 9.1 Appendix 1 - Air Quality Objectives for local air quality pollutants
- 9.2 Appendix 2 - Draft Revised Air Quality Action Plan for consultation
- 9.3 Appendix 3 - Review of 2010 Air Quality Action Plan and other actions progressed
- 9.4 Appendix 4 - Table of Air Quality Action Plan Actions
- 9.5 Appendix 5 - Interim Integrated Impact Assessment

APPENDIX 1

Air Quality Objectives for local air quality pollutants NO₂, PM₁₀ and PM_{2.5}

Pollutant	Status	Concentration in Ambient air	Measured as	To be achieved by
NO ₂	Scottish & UK Statutory Air Quality Objective and EU limit values	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005*
		40 µg/m ³	Annual mean	31.12.2005*
PM ₁₀	Scottish Statutory Air Quality Objectives	18 µg/m ³	Annual mean	2010
		50 µg/m ³ not to be exceeded more than 7 times a year	Daily mean	2010
	Statutory UK Objective and EU limit values	40 µg/m ³	Annual mean	2004
		50 µg/m ³ not to be exceeded more than 35 times a year	Daily mean	2004
PM _{2.5}	Scottish Statutory Air Quality Objective	10 µg/m ³	Annual mean	2020
	Statutory UK Objective and EU limit values	25 µg/m ³	Annual mean	2020
		15% reduction in urban background	-	2010-2020

* The European Commission allowed an extension until 1 January 2015 for compliance.