

Transport and Environment Committee

10.00am, Thursday, 20 April 2023

2022 Air Quality Annual Progress Report

Executive/routine Wards Council Commitments	Routine All
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1. Recommendations

- 1.1 It is recommended that the Committee notes the content of the statutory Air Quality Annual Progress Report which fulfils the requirements of the Local Air Quality Management Framework.

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2022 Air Quality Annual Progress Report

2. Executive Summary

- 2.1 This report provides an annual update on the most recently available ratified annual air quality monitoring data (2021), local pollutant trends and emerging issues in Edinburgh, fulfilling the requirements of the statutory Local Air Quality Management Framework.

3. Background

- 3.1 The Local Air Quality Management (LAQM) framework is set out in the Environment Act (1995) and obliges local authorities to review and assess air quality in their areas against statutory objectives. When a pollutant fails to comply with an objective, an Air Quality Management Area (AQMA) must be declared and an Action Plan prepared, detailing measures which will be implemented to improve air quality within the designated area.
- 3.2 The Council is obliged to produce an Annual Progress Report, described herein, to give an update on progress which has been made with respect to actions that may improve air quality in the past year. The Annual Progress Report must also detail the latest annual air quality monitoring data (2021), trends in local pollutants and emerging issues.
- 3.3 Reports are compiled in accordance with the Technical Guidance (updated 2021) issued by the Department of Environment Food and Rural Affairs.
- 3.4 It should be noted that the Scottish Government are intending to provide an update to policy guidance in respect to the LAQM regime in Spring 2023. This is driven by the new national air quality strategy 'Cleaner Air for Scotland 2 – Towards a Better Place for Everyone' that was published in July 2021.
- 3.5 The changes will also take account of the recent Environmental Standard Scotland (ESS) Air Quality Investigation. ESS is an independent body set up to ensure the effectiveness of environmental law and prevent enforcement gaps arising from the UK leaving the European Union. It is ESSs' remit to monitor the effectiveness of environmental law in Scotland, and public authorities' compliance with it. The air quality investigation followed the March 2021 European Court of Justice judgement that, across the UK, breaches of air quality limit values for nitrogen dioxide had

been 'systematic and persistent' between 2010 and 2017. The Council provided evidence to the investigation.

- 3.6 The investigation found a number of areas where the system of management of local air quality can be improved. These areas concern the timeframes over which local air quality objectives should be met and the rules surrounding the plans to achieve this. ESS also considered that the governance and oversight arrangements are overly complex and opaque.
- 3.7 ESS issued an improvement report to Scottish Ministers recommending a set of measures that should be taken to strengthen the effectiveness of the relevant law. In summary, the recommended measures would require local authorities to:
 - 3.7.1 Complete and publish air quality action plans within a specified target date after an air quality management area has been declared;
 - 3.7.2 Achieve air quality action plan objectives within a specified target date; and
 - 3.7.3 Review air quality action plans and update, where necessary.
- 3.8 In Edinburgh there are five AQMAs declared for breaches of the NO₂ objectives – Central, St John's Road, Great Junction Street, Glasgow Road (Newbridge) and Inverleith Row. Revocation of the Inverleith Row AQMA and amendment of the St John's Row AQMA are in-process.
- 3.9 There is one additional AQMA declared for fine particles (PM₁₀) in the Salamander Street area, which has a mix of sources including fugitive, industrial and traffic emissions.

4. Main report

2021 Monitoring Network and Data

- 4.1 The Council is predominately concerned with the review and assessment of Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀ and PM_{2.5}), as with most UK towns and cities. Statutory objectives for these pollutants are defined in Appendix 1.
- 4.2 Scotland has set tighter standards for particulates (PM₁₀ and PM_{2.5}) compared with the rest of the UK and Europe. These correspond more with the World Health Organisation guidelines and interim targets (2021).
- 4.3 Edinburgh has a well-established air quality monitoring network and in 2021 there were nine automatic stations monitoring different pollutants and 184 locations where non-automatic monitoring of NO₂ was undertaken.
- 4.4 Generally, improvements in air quality are assessed by analysis of long-term trends. Short-term results are influenced by weather and temporary events such as the pandemic travel restrictions, local traffic diversions and roadworks etc.
- 4.5 Long term trends show concentrations of the main pollutants of concern are decreasing at locations across the city.
- 4.6 The impact of the COVID-19 pandemic continued to be a significant influence in respect to 2021 NO₂ concentrations. Although, on average, concentrations

increased from 2020 levels they remain below pre-pandemic levels. This is also in keeping with traffic data analysis which shows traffic flows have remained lower than 2019 levels. Changes in driving patterns are also likely to affect concentrations with less peak-time travel.

- 4.7 In 2021, there was one site within the Central AQMA (East Norton Place) where the statutory annual mean objective for NO₂ was breached.
- 4.8 Concentrations remain well below the objectives within the Inverleith Row AQMA. The Scottish and UK Government have supported the Council's decision to revoke this AQMA, hence this work is in-progress.
- 4.9 For the second time since their declaration, there were no reported breaches in the statutory objectives for NO₂ in the St John's Road and Glasgow Road AQMAs. The first time this occurred was in 2020.
- 4.10 Within the Great Junction Street AQMA, there have been no reported breaches of NO₂ objectives for five years running, however revocation of the AQMA will not be considered until planned traffic management changes are in place.
- 4.11 All monitoring locations reported concentrations below the statutory objectives for particulates PM₁₀ and PM_{2.5} in 2020. Within the Salamander Street AQMA, the annual PM₁₀ objective was met for the second time since its declaration in 2017.

Progress with Actions to Improve Air Quality

- 4.12 In May 2022, the Council agreed to implement a Low Emission Zone (LEZ). Work is ongoing to ensure successful delivery of the scheme in respect to road network changes, signage and development of enforcement systems and administrative processes. Communicating the changes and the need for individuals and businesses to 'get ready' is ongoing, alongside national messaging plans and support funding (which are supporting all of Scotland's LEZs).
- 4.13 The Council is in the process of updating the Air Quality Action Plan to take account of the decision to implement the LEZ. The Draft Air Quality Action Plan (AQAP), which is currently being consulted upon, has been developed to improve air quality under eight themes, as detailed to Committee in [December 2022](#):
 - 4.13.1 LEZ;
 - 4.13.2 Strategic Transport;
 - 4.13.3 Behavioural Change to Active Travel;
 - 4.13.4 Public Transport;
 - 4.13.5 Low Emission Vehicles;
 - 4.13.6 2030 Climate Strategy;
 - 4.13.7 Integrated Policies and Guidance; and
 - 4.13.8 Domestic Emissions.

- 4.14 Traffic sources continue to remain a focus, as well as other sources including emissions from power generation and space heating (which contribute to the general background concentrations, especially in the densely populated city centre).
- 4.15 The Draft Plan is intended to complement the substantial amount of work which has been undertaken in relation to the LEZ, while supporting elements of the City Mobility Plan, 2030 Climate Strategy and the emerging City Plan 2030.
- 4.16 Continuing economic growth in the city and wider region presents a challenge for air quality. Population growth has inevitable demand for all modes of transport and support infrastructure. Through collaborative working, the AQAP will ensure that wider strategic air quality improvements are implemented through existing policy areas. This will include strategic transport improvements, promotion of behaviour-change to reduce private vehicle use, promotion of low emission vehicles and controlling domestic emissions.
- 4.17 The Draft AQAP includes specific actions in other areas of poor air quality, such as St Johns Road AQMA, and continued action in areas where AQMAs are being revoked to ensure air quality continues to improve e.g. Inverleith Row.
- 4.18 Plans being developed and implemented for placemaking, climate change and noise reduction are closely co-ordinated and aligned with those for air quality in order to maximise co-benefits.
- 4.19 Drafting of a PM₁₀ Air Quality Action Plan to address specific issues within the Salamander Street AQMA will be progressed in 2023. This has been delayed due to prioritisation of other air quality work, such as the LEZ and wider action planning.

Annual Progress Report approval

- 4.20 This Air Quality Annual Progress Report has been approved by Scottish Government following peer review by UK Government's Department of Environment Food and Rural Affairs and the Scottish Environment Protection Agency (SEPA), according to the requirements of the Local Air Quality Management Regime and the Environment Act 1995.

5. Next Steps

- 5.1 This 2022 Air Quality Annual Progress Report discharges the Council's statutory duty to report on the monitoring and assessment of air quality in 2021, as specified under the terms of the Environment Act 1995 and the associated Local Air Quality Management framework.
- 5.2 The 2022 Air Quality Annual Progress Report is published on the Council's website.
- 5.3 The main priority for the Council in 2023 will be finalising the delivery of the LEZ, finalising the final AQAP (following consultation) and drafting a PM₁₀ Air Quality Action Plan to address specific issues within the Salamander Street AQMA.
- 5.4 Some elements of the Cleaner Air for Scotland 2 Strategy require partnership working with the Scottish Government firstly, to assess how effectively air quality is embedded in plans, policies, City Deals and other initiatives and secondly, to

consider opportunities to promote zero-carbon city centres. It is anticipated that these will be explored throughout the lifetime of the five-year strategy with support from Transport Scotland.

6. Financial impact

6.1 This report has no direct financial impacts.

7. Stakeholder/Community Impact

7.1 Formal public consultation and engagement is currently being undertaken for the development of the Draft Air Quality Action Plan.

8. Background reading/external references

8.1 [2022 Air Quality Annual Progress Report](#) (APR) for City of Edinburgh Council

8.2 [Scottish Air Quality Database Annual Report for 2021](#)

8.3 [Air Quality Scotland Brochure 2021](#)

8.4 [Air Quality Investigation - Environmental Standards Scotland](#)

8.5 [Cleaner Air for Scotland 2 – Towards a Better Place for Everyone](#)

8.6 [WHO Air Quality Guidelines 2021](#)

9. Appendices

9.1 Appendix 1 - Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀ and PM_{2.5}) Legal Standards for Scotland

APPENDIX 1

Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀ and PM_{2.5}) Legal Standards

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.