

## ABERDEEN CITY COUNCIL

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<b>COMMITTEE</b>	Net Zero, Environment and Transport
<b>DATE</b>	16 January 2024
<b>EXEMPT</b>	No
<b>CONFIDENTIAL</b>	No
<b>REPORT TITLE</b>	Air Quality Progress
<b>REPORT NUMBER</b>	RES/23/330
<b>DIRECTOR</b>	Gale Beattie
<b>CHIEF OFFICER</b>	David Dunne
<b>REPORT AUTHOR</b>	Nick Glover
<b>TERMS OF REFERENCE</b>	1,6

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### 1. PURPOSE OF REPORT

- 1.1 To update Committee members on the annual air quality monitoring results for 2022.

### 2. RECOMMENDATION

- 2.1 That the Committee note the findings of the 2023 Air Quality Progress Report (APR) for Aberdeen City Council.

### 3. CURRENT SITUATION

- 3.1 The Environment Act 1995, Part IV, as amended by the Environment Act 2021, places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved.
- 3.2 The Scottish Government has stipulated authorities must submit an annual progress report for approval by the Scottish Government and the Scottish Environmental Protection Agency (SEPA). The Scottish Government approved the appended Annual Progress report 2023 for Aberdeen City, on 11 August 2023.
- 3.3 The main pollutants of concern in Aberdeen City are nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub>), related to road traffic emissions. These pollutants have a significant public health impact, particularly the young, elderly and those with pre-existing medical conditions. In 2018, Health Protection Scotland estimated that approximately 1700 attributable (premature) deaths in Scotland annually can be attributed to air pollution.<sup>1</sup>
- 3.4 Table 1 details the air quality objectives for the purposes of Local Air Quality Management.

**Table 1: Air Quality objectives**

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Nitrogen dioxide	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m <sup>3</sup>	Annual mean	31.12.2005
Particulate Matter (PM <sub>10</sub> ) (gravimetric)	50 µg/m <sup>3</sup> , not to be exceeded more than 7 times a year	24-hour mean	31.12.2011
	18 µg/m <sup>3</sup>	Annual mean	31.12.2011

### **Nitrogen Dioxide Monitoring Results**

- 3.5 Table 2 shows the annual mean NO<sub>2</sub> concentrations over the period 2018-2022 at Aberdeen's six continuous monitoring sites. Erroll Park replaced a site previously sited on Erroll Place, which had to be relocated due to the demolition of a housing development on the street; hence why data is only available from 2021. There is also a network of diffusion tubes recording NO<sub>2</sub> concentrations at 67 sites across the city.
- 3.6 The NO<sub>2</sub> automatic monitoring data collected at all sites bar Union Street in 2022 decreased slightly on 2021 levels. Concentrations at all automatic sites continued to be below the annual mean air quality objective of 40 µg/m<sup>3</sup>.
- 3.7 Twelve new diffusion tube locations were added to the city survey in 2022 – eight on junctions outside of the Low Emission Zone (LEZ) area, identified as locations where increases in traffic are likely by modelling previously carried out by SEPA. Two diffusion tubes located on Bridge Street – within the LEZ area – suggest an exceedance of the objective at these locations within the city centre Air Quality Management Area (AQMA).
- 3.8 Within the Wellington Road AQMA the annual mean levels recorded at the Wellington Road automatic site and the 2 diffusion tube locations continued to be below the annual mean objective.
- 3.9 There were no exceedances of the annual mean objective recorded in the Anderson Drive AQMA. Two diffusion tubes were reintroduced in 2022 to replace two locations removed from the city survey during construction works for the improvements to the Haudagain roundabout in 2021. Diffusion tubes DT39 and DT41 – situated on the Haudagain Roundabout, where the annual mean was exceeded at both locations in 2018 but are now both notably below this level – each recorded 24µg/m<sup>3</sup>. This area is now benefitting from the improvement works completed in this area in May 2022, together with the opening of the Aberdeen Western Peripheral Route (AWPR) from 2018, which may have contributed to the improvement.

- 3.10 There were no exceedances of the hourly mean objective at any automatic or diffusion tube sites in 2022.
- 3.11 By 2022, all temporary traffic restrictions that had been implemented as part of the Spaces for People initiative across 2020 and 2021 had been removed – except for along the Union Street central section, where the removal of general traffic was made permanent from summer 2022, making it a bus, taxi and cycle priority space. The annual mean NO<sub>2</sub> levels monitored across the city, both within and outside AQMAs, did not differ significantly to 2021, but have increased slightly in some areas as expected given the removal of restrictions and a return to a new normal in post-pandemic life. This may be the new level of NO<sub>2</sub> and particulates concentrations. Ongoing air quality monitoring will provide trends to establish if levels return nearer to levels monitored pre COVID pandemic.

**Table 2:** Annual mean NO<sub>2</sub> concentrations at continuous monitoring sites

Site	Annual mean NO <sub>2</sub> concentration (µg/m <sup>3</sup> )				
	2018	2019	2020	2021	2022
Erroll Park	N/A	N/A	N/A	21	16
Union St	<b>40</b>	38	24	25	27
Market St	31	33	22	27	23
Anderson Dr	19	17	12	13	12
Wellington Rd	39	39	25	28	25
King St	23	22	16	17	16
Objective Value	40	40	40	40	40

### **Particulate Monitoring Results**

- 3.12 There were no exceedances of the annual mean or 24 hour mean objective at any of the continuous monitoring sites in 2022. The 24 hour mean objective has been met at all monitoring sites for the last 5 years.
- 3.13 Table 3 shows the annual mean PM<sub>10</sub> concentrations over the period 2018-2022.

**Table 3:** Annual mean PM<sub>10</sub> concentrations at continuous monitoring sites

Site	Annual mean concentration (µg/m <sup>3</sup> )				
	2018	2019	2020	2021	2022
Erroll Park	N/A	N/A	N/A	10	11
Union St	15	12	10	11	13
Market St	17	13	10	11	13
Anderson Dr	14	13	9	9	10
Wellington Rd	17	14	14	12	13
King St	14	14	11	12	11
Objective Value	18	18	18	18	18

- 3.14 There are 6 continuous monitoring sites measuring PM<sub>10</sub> levels in Aberdeen City. As before with NO<sub>2</sub>, data for Erroll Park is only available from 2021.
- 3.15 No exceedances of the annual mean were recorded at any of the continuous monitoring sites.

## **Conclusions**

- 3.16 The 3 AQMAs in the City remain valid for NO<sub>2</sub> and PM<sub>10</sub> annual means, to ensure sustained compliance with the air quality objectives.
- 3.17 New monitoring data has not identified a need for any other changes to the existing AQMAs

## **4. FINANCIAL IMPLICATIONS**

- 4.1 There are no direct financial implications arising from the recommendations of this report.

## **5. LEGAL IMPLICATIONS**

- 5.1 There are no direct legal implications arising from the recommendations of this report.

## **6. ENVIRONMENTAL IMPLICATIONS**

- 6.1 There are no direct environmental implications arising from the recommendations of this report.

## **7. RISK**

- 7.1 The assessment of risk contained within the table below is considered to be consistent with the Council's Risk Appetite Statement

Category	Risks	Primary Controls/Control Actions to achieve Target Risk Level	*Target Risk Level (L, M or H)  *taking into account controls/control actions	*Does Target Risk Level Match Appetite Set?
<b>Strategic Risk</b>	No significant risks identified			<b>Yes</b>
<b>Compliance</b>	No significant risks identified			<b>Yes</b>
<b>Operational</b>	No significant risks identified			<b>Yes</b>
<b>Financial</b>	No significant risks identified			<b>Yes</b>
<b>Reputational</b>	No significant risks identified			<b>Yes</b>
<b>Environment / Climate</b>	No significant risks identified			<b>Yes</b>

## 8. OUTCOMES

<b><u>COUNCIL DELIVERY PLAN 2023-2024</u></b>	
	<b>Impact of Report</b>
<b>Aberdeen City Council Policy Statement</b>  <a href="#"><u>Working in Partnership for Aberdeen</u></a>	This report provides an update on air quality monitoring across the city. There are no proposals in this report and therefore no impact on the Council Delivery Plan.
<b>Regional and City Strategies</b>	There are no proposals in this report.

## 9. IMPACT ASSESSMENTS

Assessment	Outcome
<b>Integrated Impact Assessment</b>	It is confirmed by Chief Officer, Mark Reilly that no Integrated Impact Assessment is required.
<b>Data Protection Impact Assessment</b>	Not required
<b>Other</b>	None

## 10. BACKGROUND PAPERS

10.1 (1) Air Quality in Scotland, The Scottish Government, 2021.

## 11. APPENDICES

11.1 2023 Air Quality Annual Progress Report (APR) for Aberdeen City Council

## 12. REPORT AUTHOR CONTACT DETAILS

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