



**SOUTH  
KESTEVEN  
DISTRICT  
COUNCIL**



Environment Overview and Scrutiny Committee

Date: 13 February 2024

Report of Councillor Cllr Rhea Rayside  
Cabinet Member for People and Safer  
Communities

## Annual Air Quality Status Report

### Report Author

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### Purpose of Report

To provide an overview of the Annual Air Quality Status Report (ASR 2023) for awareness and noting.

To update the Committee on the Clean Air Lincolnshire, which is a county wide project.

### Recommendations

That the Environment Overview and Scrutiny Committee:

1. Note the content of the Annual Air Quality Status Report (ASR 2023).
2. Note the update on Clean Air Lincolnshire, which is a county wide project.

Decision Information	
Is this a Key Decision?	<b>No</b>
Does the report contain any exempt or confidential information not for publication?	<b>No</b>
What are the relevant corporate priorities?	<b>Clean and sustainable environment</b>
Which wards are impacted?	<b>All</b>

## 1. Implications

Taking into consideration implications relating to finance and procurement, legal and governance, risk and mitigation, health and safety, diversity and inclusion, safeguarding, staffing, community safety, mental health and wellbeing and the impact on the Council's declaration of a climate change emergency, the following implications have been identified:

### Finance

1.1 The Council's current air quality monitoring and reporting programme is carried out within existing budgets which are reviewed annually.

Completed by: Alison Hall-Wright, Deputy Director (Finance & ICT) and Deputy S151 Officer

### Legal and Governance

1.2 The Local Air Quality Management ("LAQM") regime was introduced by the Environment Act 1995. The Council's duties under the Environmental Act 1995 are mandatory. The duties imposed on the Council are, to review air quality from time to time and, under Part IV of the Act, to develop and implement an air quality action plan to tackle air pollution.

Completed by: Graham Watts, Assistant Director (Governance and Public Protection) and Monitoring Officer

### Climate Change

1.3 South Kesteven District Council's declared an Air Quality Management Area which was primarily relates to the exceedance of Nitrogen Dioxide (NO<sub>2</sub>), one of a number of greenhouse gases contributing to an accelerated changing climate. The principal source of NO<sub>2</sub> derives from the volume of vehicle traffic travelling through the centre of Grantham. Actions included within the Air Quality Action Plan which seek to

reduce the need to travel and to reduce car traffic overall will have a simultaneous impact of reducing carbon emissions whilst improving public health.

Reviewed by Serena Brown, Sustainability and Climate Change Officer

## 2. Background to the Report

- 2.1 Under the Environment Act 1995 and the associated Local Air Quality Management Framework, local authorities have a duty to review and assess air quality against National Air Quality Standards. Local air quality in South Kesteven is managed via an extensive diffusion tube monitoring network comprising fifty-eight passive NO<sub>2</sub> diffusion tubes at thirty-five separate locations (some have triplicate/duplicate tubes at one location). The diffusion tube network is used to monitor NO<sub>2</sub> concentrations across the District, identify potential new areas of concern and monitor at known hotspot areas. Local Authorities are required to publish an Air Quality Status Report on an annual basis that covers the previous Calander year.
- 2.2 The Annual Air Quality Status Report (ASR 2023) (Appendix 1) presented in this report concerns 2022 and uses the data gathered in 2022. The ASR however is titled 2023 as this is when the report was created using the data.
- 2.3 SKDC undertook non- automatic (i.e. passive) monitoring of Nitrogen Dioxide (NO<sub>2</sub>) at thirty-five sites during 2022 with fifty-eight individual diffusion tubes across. The tubes are located within Grantham and Stamford. The ASR 2023 (in the Appendix) identifies the exact locations the diffusion tubes are situated.
- 2.4 South Kesteven District Council declared an Air Quality Management Area (AQMA) in 2013 encompassing the main roads in the town centre of Grantham (see Appendix 2, figure 2). The main pollutant of concern is Nitrogen Dioxide (NO<sub>2</sub>), which is largely attributable to road transport emissions, with cars being the dominant source within the AQMA.
- 2.5 There were no exceedances of the Air Quality Objectives recorded at any of the passive monitoring sites. The maximum reported concentration in 2022 was 37.8 µg/m<sup>3</sup> at diffusion tube duplicate monitoring location SK33, 34, located on A607 Manthorpe Road in Grantham, which is slightly higher than in 2021. Overall, the trend shows that the NO<sub>2</sub> concentrations are increasing in the area since 2020, however these are well below the 2018 and 2019 levels.
- 2.6 Within the 2023 ASR, Figure A.1 to Figure A.4 presents graphs showing the annual mean NO<sub>2</sub> concentrations between 2018 and 2022. The graphs demonstrate a general trend of reduction of NO<sub>2</sub> over this 5 year period. The significant decreases in 2020 are likely to be attributed to changes in behaviour due to Covid-19 restrictions impacting on travel. The overall patterns of travel post covid are still emerging and may account for some of the changes in NO<sub>2</sub> recorded at some sites however generally they remain lower than 2018 and 2019 (pre covid) levels.

2.7 The 2023 ASR recommends within the '*conclusions and priorities*' two key priorities (in order to comply with the AQS objectives):

- Continue passive monitoring within the AQMA to ensure the NO<sub>2</sub> concentration remains below 40 µg/m<sup>3</sup>, in particular at monitoring locations currently within 10% of the AQS objectives;
- Continue to consider amending AQMA No.6 to remove the pollution declaration of 1- hour NO<sub>2</sub> exceedances and potential revocation of the AQMA.

2.8 The 2023 ASR has been appraised by DEFRA. The full response is provided with Appendix 3 of this report. Within DEFRA's response the feedback identifies that There were no exceedances of the Air Quality Objectives recorded at any of the passive monitoring sites. The overall trend is decreasing concentrations of NO<sub>2</sub> at those monitored locations, however, there has been a slight increase observed in concentrations at some locations from 2021 to 2022, as traffic levels within the area are continue to return to pre-pandemic levels.

2.9 Whilst there is a gradual reduction in NO<sub>2</sub> emissions noted over the last five years, there are 3 sites within the AQMA which have only been under the objective levels for the last 2-3 years, this includes 2020 where results are not considered typical.

2.10 South Kesteven District Council are also part of a Lincolnshire wide project to improve air quality throughout the county: Clean Air Lincolnshire. The project is funded via the Department for Environment, Food and Rural Affairs (DEFRA) and led by Lincolnshire County Council in partnership with district councils. It aims to raise public awareness of the issue of clean air for health and for the environment and provide actionable steps to take to improve local air quality and reduce health conditions related to air pollution.

2.11 A key aim of the project is to work in partnership with identified secondary schools within the county. For South Kesteven, Kings School in Grantham is participating in the project, which is also located within the Grantham AQMA. Clarity air quality monitoring equipment has been installed outside the school to provide real time information on air quality. Students, staff and parents are educated on the effects of local air pollution and how to reduce exposure and emissions. Using the data and local knowledge, the students will run campaigns during the 2023/24 school year, promoting active travel and anti-idling, to improve air quality around their school.

2.12 Public information can now also be viewed on a dedicated Clean Air Lincolnshire website available at: [cleanairlincolnshire.org.uk](http://cleanairlincolnshire.org.uk). The webpages provide information and actionable steps on indoor and outdoor air pollution, as well as a map of air quality monitors in the county and a live assessment of current air quality based on the UK government's Daily Air Quality Index (DAQI).

### **3. Key Considerations**

- 3.1 Overall, the general trend shows that concentrations of NO<sub>2</sub> are decreasing, with all sites being below both the hourly and annual objective levels. However, there has been a slight increase observed in the concentrations at some sites from 2021 to 2022, as traffic levels within the area are starting to return to pre-pandemic levels.
- 3.2 There are no recorded exceedances of the hourly mean objective for nitrogen dioxide, when using annual mean as a proxy for hourly mean. Exceedances of this objective have not been predicted for over 5 years.
- 3.3 In relation to the Air Quality Action Plan for the Air Quality Management Area, an update on this will be brought before this committee in a separate report.

### **4. Other Options Considered**

- 4.1 None.

### **5. Reasons for the Recommendations**

- 5.1 The 2023 ASR identifies that the general trend shows that concentrations of NO<sub>2</sub> are decreasing. The 1 hour mean has been predicted to be below the air quality objective for the previous 5 years and the Council can therefore be reasonably certain that this will not be exceeded in the future. All sites have only been below the annual mean air quality objective since 2020. Although levels are declining, the impact of Covid-19 on travel and the traffic model moving forwards is still emerging. monitoring of nitrogen dioxide (NO<sub>2</sub>) at all fifty-eight passive monitoring tubes across the thirty-five monitoring locations will continue to ensure that levels can be maintained or further reduced.

### **6. Background Papers**

#### **6.1 Cabinet Report 18 February 2013**

ENV 577- Proposal to extend the existing AQMA along Manthorpe Road and Wharf Road to include High Street and London Road, Grantham.

#### **6.2 Cabinet Report 4 April 2016**

ENV 639 -Approval for implementation of the 2016 AQMA Action Plan.

#### **6.3 The Local Air Quality Management – P22 Guidance: LADM-Policy-Guidance-2022.pdf (defra.gov.uk)**

## **7. Appendices**

7.1 List any Appendices.

Appendix 1: The Annual Air Quality Status Report (ASR 2023)

Appendix 2: AQMA Order No 6

Appendix 3: DEFRA ASR Appraisal Report- October 2023