

**NEWCASTLE-UNDER -LYME BOROUGH COUNCIL**  
**EXECUTIVE MANAGEMENT TEAM'S**  
**REPORT TO**

**Licensing and Public Protection Committee**  
**12 December 2023**

**Report Title:** Environment Act 1995 – Part IV Local Air Quality Management – Annual Status Report 2023

**Submitted by:** Service Director Regulatory Services & Environmental Protection Team Manager

**Portfolios:** Sustainable Environment

**Ward(s) affected:** All

<p><b><u>Purpose of the Report</u></b></p> <p>To advise Committee of the findings of the statutory Annual Status Report (ASR) for the 2023 ASR which covers the 2022 calendar in respect of air quality within the Borough.</p>	<p><b>Key Decision</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
<p><b><u>Recommendation</u></b></p> <p><b>That</b></p> <p>1. Committee notes the content of the ASR 2023.</p>	
<p><b><u>Reasons</u></b></p> <p>1. To inform committee of the state of local air quality within the Borough for the 2022 calendar year and action being taken to monitor and improve local air quality in respect of transport related Nitrogen Dioxide levels and also particulate matter exposure.</p>	

**Background**

- 1.1 Air quality is the largest environmental health risk in the UK. It shortens lives and contributes to chronic illness. Health can be affected both by short-term, high-pollution episodes and by long-term exposure to lower levels of pollution.
- 1.2 Local authorities in the UK have a statutory duties for managing local air quality under Part IV of the Environment Act 1995. District Councils have been required to review and assess air quality within their areas since 1997 for compliance against a range of pollutant objectives.
- 1.3 The Council has been carrying out reviews of air quality since December 1997; these involve measuring air pollution and trying to predict how it will change over the next few years. The review process aims to make sure that the national air quality objectives prescribed in the Air Quality Regulations [http://uk-air.defra.gov.uk/assets/documents/National\\_air\\_quality\\_objectives.pdf](http://uk-air.defra.gov.uk/assets/documents/National_air_quality_objectives.pdf) will be achieved throughout the UK by the relevant deadlines. T
- 1.4 These objectives have been put in place to protect people's health and the environment. The Council has been carrying out reviews of air quality since December 1997; these involve measuring air pollution and trying to predict how it will change over the next few years. The review process aims to make sure that the national Air Quality Objectives prescribed in the Air Quality Regulations will be achieved throughout the UK by the relevant deadlines. These objectives have been put in place to protect people's health and the environment. In relation to people, the objectives apply at the facades of relevant receptors, generally dwellings, hospitals, schools. Workplaces are excluded.
  - a. In terms of costs to society research commissioned by Public Health England, "found that the health and social care costs of air pollution (PM<sub>2.5</sub> and NO<sub>2</sub>) in England could reach £5.3 billion by 2035. This is a cumulative cost for diseases which have a strong association with air pollution: coronary heart disease; stroke; lung cancer; and childhood asthma.

- b. *When diseases with weaker evidence of association are also added, including chronic obstructive pulmonary disease; diabetes, low birth weight, lung cancer, and dementia, the costs could reach £18.6 billion by 2035. When all diseases are included, air pollution is expected to cause 2.4 million new cases of disease in England between now and 2035. PM<sub>2.5</sub> alone could be responsible for around 350,000 cases of coronary heart disease and 44,000 cases of lung cancer in England over that time.*
  - c. *There could be around 2.5 million new cases of all of the above diseases by 2035 if current air pollution levels persist.*
  - d. *Even small changes can make a big difference, just a 1µg/m<sup>3</sup> reduction in PM<sub>2.5</sub> concentrations this year could prevent 50,000 new cases of coronary heart disease and 9,000 new cases of asthma by 2035.” (Source CLEAN AIR STRATEGY 2019 DEFRA, 2019).*
  - e. At the local level, estimated costs of the health impacts of air pollution from ultra-fine particulate matter alone is thought to be between £20 - 47 million for Newcastle-under-Lyme and between £39 – 93 million for Stoke-on-Trent. Costs to the NHS and Social Care are thought to be between £96 – 176 thousand for Newcastle-under-Lyme and between £189 – 349 thousand for Stoke-on-Trent. (Source: [https://fingertips.phe.org.uk/documents/PHE\\_Air\\_Pollution\\_Setup.exe](https://fingertips.phe.org.uk/documents/PHE_Air_Pollution_Setup.exe))
- 1.5 Local authorities therefore have an important role in bringing about improvements in air quality and ensuring compliance with statutory requirements to reduce the impact on health and associated costs to the National Health Service and the wider economy
- 1.6 The findings of the previous reviews and assessments undertaken by your Officers were last reported to committee in 2022 and are available to view online at <https://www.newcastle-staffs.gov.uk/protection/air-quality-management>

## **Issues**

### **2.1 Annual Status Report 2022**

2.2 This was reported to this Committee in December 2022. DEFRA have now accepted the report in full.

2.3 In respect of the Maybank, Wolstanton and Porthill AQMA DEFRA have advised that the Council should proceed to revoke this. Officers are in discussions with DEFRA officials about this and will provide a verbal update to Committee

### **2.4 Annual Status Report 2023**

2.5 In accordance with its statutory duties, the Borough Council has submitted its Annual Status Report for 2023 which is concerned with a retrospective review of air quality within the Borough for the preceding calendar year. A copy of reports since 2009 can be found on line at [Air quality management – Newcastle-under-Lyme Borough Council \(newcastle-staffs.gov.uk\)](#)

2.6 Previous assessments have identified nitrogen dioxide (NO<sub>2</sub>) as the pollutant of concern, with a number of locations within the Borough exceeding the NO<sub>2</sub> annual mean objective. This is principally due to road traffic emissions.

2.7 This ASR'S consider all new monitoring data and assesses the data against the Air Quality Strategy (AQS) objectives.

2.8 It also considers any changes that may have an impact on air quality.

2.9 The review of new diffusion tube monitoring data has not identified any locations outside of the four existing Air Quality Management Areas (AQMA's), declared in December 2014 within the Borough where the AQS annual NO<sub>2</sub> objective was exceeded in 2021.

- 2.10 Monitoring of NO<sub>2</sub> concentration in the AQMA's and at a variety of locations across the Borough during 2022 shows, that there has been a general decrease in NO<sub>2</sub>, with the majority of areas now being under the annual mean objective. There are however a number of hotspots within the Town Centre and Kidsgrove which have exceeded in previous years or are at risk of exceedance in future years (within 10% of the objective).
- 2.11 The monitoring results for 2021 were treated with caution given the emergence from Covid-19 lockdowns whilst the 2022 result used in the 2023 ASR are considered to be representative of the real life situation.
- 2.12 Town Centre AQMA**
- 2.13 Air Quality in this area is influenced by local road traffic and traffic utilising the major arterial routes, which converge on the town centre. There are a number of relevant receptors where the objective applies located at the back of pavement. The network is heavily congested at peak times of the day with high volumes of low speed mixed stop start traffic. The location of this AMQA can be found online at [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=170](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=170)
- 2.14 The town centre is experiencing a period of regeneration with provision for developments to provide significant numbers of new accommodation in the coming years. The former Civic Offices and Sainsburys' site is planned to be redeveloped for mixed use in the future including residential accommodation and car parking / office space.
- 2.15 In addition, a number of office spaces are able to covert to residential use without requiring consideration of air quality. This has resulted in significant increases in the numbers of relevant receptors within the area where the Council is unable to influence development.
- 2.16 The rural areas of the Borough are facing increased demands for applications for residential development, with people in these areas heavily reliant on cars to access services and employment opportunities within the town centre and wider areas.
- 2.17 Within the Town Centre, NO<sub>2</sub> concentrations have generally decreased each year from 2012 onwards. However, for the past five years, results have been within 10% of the UK NO<sub>2</sub> annual mean objective across a number of sites and some have shown exceedances prior to 2020, in particular London Road, King Street, Lower Street (Belong Care Home) and for 2022 at Sandy Lane / Etruria Road. King Street Junction
- 2.18 Accordingly, this AQMA is required to remain in place until all sites measure an annual mean NO<sub>2</sub> concentration that is consistently below the NO<sub>2</sub> annual mean legal objective for five years running, we will also maintain our monitoring network and undertake a review of the measures within the associated air quality action plan by 2024.
- 2.19 Porthill-Wolstanton-Maybank AQMA**
- 2.20 Air Quality in this area is influenced by local road traffic and traffic utilising the junctions associated with the A500 dual carriageway. Relevant receptors in this location are mainly located at the back of footway. The main route through the area is single carriageway with traffic lighted junctions, signal controlled crossings, on street bus stops and significant sections of on street parking. Porthill Bank and Grange Lane are on significant gradients which causes strain on engines and an increase in emissions. The location of this AQMA can be found online at [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=170](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=170)
- 2.21 There has been a steady decrease in NO<sub>2</sub> concentrations at the established diffusion tube monitoring sites within this AQMA over the past 7 years with levels for the past six years being at least 10% below the NO<sub>2</sub> annual mean legal objective.
- 2.22 Kidsgrove AQMA**
- 2.23 Air Quality in this location is heavily influenced by traffic using the A34 Liverpool Road and local traffic accessing side roads from Liverpool Road within the centre of Kidsgrove. Relevant receptors

are located back of footway and in close proximity to junctions and areas of congestion. The location of this AQMA can be found online at [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=170](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=170)

- 2.24 NO<sub>2</sub> concentrations have decreased each year from 2012 onwards within this AQMA. However the results for the last six years have hovered around the NO<sub>2</sub> annual mean objective.
- 2.25 Staffordshire County Council undertook a number of highway related measures aimed at reducing congestion which it is hoped will also have a complimentary effect on air quality. Plans are in place for Kidsgrove Station to be upgraded to incorporate a transport interchange and additional car parking and also a new Council Hub on Station Road. These schemes have the potential to increase traffic and alter movements through this AQMA.
- 2.26 We recommend that the AQMA remains in place until all sites measure an annual mean NO<sub>2</sub> concentration that is consistently greater than 10% below the NO<sub>2</sub> annual mean legal objective for five years running. For this purpose, we will also maintain our monitoring network and undertake a review of the measures within the associated Air Quality Action plan by 2024.
- 2.27 Little Madeley AQMA**
- 2.28 Air Quality in this location is heavily influenced by traffic using the M6 motorway which runs within 20 metres of the nearest receptor at Collingwood, 3 Newcastle Road. The location of this AQMA can be found online at [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=170](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=170)
- 2.29 The NO<sub>2</sub> concentrations at this location dropped dramatically in 2016 and have been greater than 20% below the UK NO<sub>2</sub> annual mean objective for the past six years.
- 2.30 Based on monitoring and a recent consultation exercise, this AQMA was approved for revocation by this Committee in September 2023.
- 2.31 Wider Borough – Outside AQMA's**
- 2.32 There has been a general decrease in the annual NO<sub>2</sub> concentrations across the Borough over the past five years and no new areas of actual or at risk of exceedance have been identified.
- 2.33 We will continue to undertake monitoring and screening of activities across the wider Borough.
- 2.34 Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)**
- 2.35 Particulate matter, or PM, is the term used to describe particles found in the air, including dust, dirt and liquid droplets. PM comes from both natural and man-made sources, including traffic emissions, burning and Saharan-Sahel dust. These particles can be suspended in the air for long periods of time, and can travel across large distances. PM can aggravate lungs, with the finer fractions, PM<sub>2.5</sub> and below being able to pass from the lungs into the blood stream, potentially leading to a wide range of health effects including premature mortality, allergic reactions, and cardiovascular diseases.
- 2.36 The 2021 Environment Act saw the UK Government formally declare a PM<sub>2.5</sub> limit based on WHO recommendations and which is more stringent than current EU requirements. Analysis of data from DEFRA and monitoring undertaken for Walleys Quarry does not show any background exceedances or monitored actual exceedances within the Borough.
- 2.37 Although PM<sub>10</sub> and PM<sub>2.5</sub> levels within Staffordshire remain below the relevant UK objectives and EU Limit values, based on data compiled for Public Health Outcomes Framework indicator D015, and the latest available data for 2019, there were estimated to be 60 deaths in persons over 30 years within the Borough attributable to PM<sub>2.5</sub>.
- 2.38 The ASR details a number of measures within the remit of the Council to reduce and sustain PM<sub>2.5</sub> exposure at a local level. This includes the proposed Borough wide smoke control area – approved by committee for formal consultation and to be the subject of a future report in 2024 and also a grant bid to DEFRA to undertake PM<sub>2.5</sub> indicative monitoring and behaviour change project in key areas of the Borough. Officers will know the outcome of this application sometime in March 2024.

### 3. **Proposal**

3.1 Committee notes the content of the ASR 2023.

### 4. **Reasons for Proposed Solution**

4.1 The Council is required to take the action outlined in this report in order to fulfil its statutory duties under Part IV of the Environment Act 1995

### 5. **Options Considered**

5.1 Nil

### 6. **Legal and Statutory Implications**

6.1 The Council is required to produce and submit to DEFRA an Annual Status Report in partial fulfilment of its duties under Environment Act 1995.

### 7. **Equality Impact Assessment**

7.1 The Environment Act 1995, Part IV requires the production of the Annual Status Report and submission to DEFRA for approval on an annual basis. The Act also requires the declaration and maintenance of an Air Quality Management Area where the statutory air quality objectives are at risk of / are being breached along with the production of a statutorily required Air Quality Action Plan.

7.2 The work does not impact on any protected groups or characteristics.

### 8. **Financial and Resource Implications**

8.1 There are no direct financial or resource implications coming out of this report with the production of the ASR currently met from internal budgets. The bodies responsible for delivery and funding the action plan measures are identified. A large number of the measures are reliant on significant financial resources to deliver with all potential funding streams including government grants identified where possible.

### 9. **Major Risks**

9.1 A specific GRACE risk assessment has been prepared for this line of work. Those considered to be the most significant are identified below. Appropriate controls are in place to reduce these risks from being realised.

9.1 Failure to have adequate controls in place to enable the council to comply with its legal obligations under Part IV of the Environment Act 1990 could see the Council being formally Directed by the relevant minister to undertake any of the actions they see fit, in line with the Act.

9.2 Public bodies including local Authorities may also be subject to legal action for breach of a person's human rights specifically Article 2 Right to Life and Article 8: Respect for your private and family life.

### 10. **UN Sustainable Development Goals (UNSDG)**

10.1 The monitoring and assessment of local air quality, and the requirement for air quality management areas and associated air quality action plans contributes towards the following UN Sustainable Development Goals.



10.2 The following areas of the Council Plan 2022 to 2026 are also contributed towards -

- Priority one: One Council delivering for local people
- Priority two: a successful and sustainable growing borough
- Priority three: healthy, active, and safe communities

11. **Key Decision Information**

11.1 This is not a key decision.

12. **Earlier Cabinet/Committee Resolutions**

12.1 There are none relating to this item.

13. **List of Appendices**

13.1 The Annual Status Report for 2023 is available to view online at <https://www.newcastlestaffs.gov.uk/all-services/environment/environmental-protection/air-quality-newcastleunder-lyme>

14.2 Air quality Management Area Maps for Newcastle under Lyme can be found online at [https://uk-air.defra.gov.uk/aqma/local-authorities?la\\_id=170](https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=170)

14. **Background Papers**

14.1. Environment Act 1995 – Part IV <https://www.legislation.gov.uk/ukpga/1995/25/part/IV>

14.3 Local Air Quality Management Technical Guidance (LAQM.TG.22) (available at <https://laqm.defra.gov.uk/air-quality/featured/uk-regions-exc-london-technical-guidance/>

14.4 Local Air Quality Management Policy Guidance (LAQM PG.22) <https://laqm.defra.gov.uk/wp-content/uploads/2023/11/LAQM-Policy-Guidance-2022.pdf>

14.5 Air Quality Reports completed since 1997 available from <https://www.newcastle-staffs.gov.uk/protection/air-quality-management/6>