

Classification: Public

Key Decision: No

Gravesham Borough Council

Report to: Operational Services Cabinet Committee
Date: 22 March 2023 (deferred from 15 September 2022)
Reporting officer: Deborah Wilders, Environmental Protection Team Leader
Subject: Air Quality Annual Status Report

Purpose and summary of report:

To present Members with the Air Quality Annual Status Report

Recommendations:

1. This report is for Member information only; it is recommended that Members note the content of the report but in particular the direct links that air quality has with climate change.

Key Implications:	
Item	Implications
Legal	<p>The Annual Status Report (ASR) provides an overview of air quality in Gravesham Borough Council during 2021. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents.</p> <p>The LAQM process 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.</p> <p>Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.</p> <p>This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Gravesham Borough Council to improve air quality and any progress that has been made.</p> <p>The ASR reaffirms the council's obligation to review its existing Air Quality Action Plans and Air Quality Strategy to bring them up to date, remove the actions that have been achieved or are obsolete and to create a new Action Plan for adoption made up of commitments from both the council and its partners as to how they will pursue an improvement in air quality in the borough and the measure of success.</p>

Finance and Value for Money	The minimal costs associated with the drafting of the ASR were accommodated within existing budgets.
Corporate Plan	The Local Air Quality Management (LAQM) Regime links directly to Corporate Objective #1 People, and feeds into/supports Corporate Objective #3 Progress
Climate Change	<p>In June 2019, the Council declared a climate emergency and that it would begin to take action to prepare for the borough to become carbon neutral by 2030. In working towards achieving this ambitious target, the council must also consider the environmental impacts of the emissions to air arising from local sources ie traffic, aggregate sites and construction sites on the health of its residents and visitors.</p> <p>The progress recorded in the ASR on the actions within the council's two Action Plans indicates how closely linked the actions are to those in the Climate Change Action Plan.</p> <p>The Air Quality Annual Status Report 2022 emphasises the significant achievements made in the improvement of local air quality and highlights where progress still needs to be made. Lessening the impact of emissions to air on climate change will, if implemented with care and consideration also improve local air quality as they are intrinsically linked, and one must not be achieved at the detriment to the other.</p> <p>Delivering the actions to improve local air quality and lessen the impact on climate change supports the council's Carbon Neutral Commitment, made following its declaration of a Climate Emergency.</p>

1. Background

- 1.1 The council has been carrying out air quality monitoring since the early 1990s. In 1995 the Local Air Quality Management (LAQM) Regime was introduced and obliged all councils to consider the largest sources of pollution in their borough. For Gravesham this was both the A2 Trunk Road, for nitrogen dioxide, and the Northfleet Industrial Area for particulate matter (PM10). Air Quality Management Areas (AQMA) were declared for both and following the drafting of the council's first Air Quality Action Plan work began to reduce the impact of these two major sources on the residents of the borough.
- 1.2 This was followed by all councils being obliged to consider the other sources of air pollution in the borough e.g. junctions and busy lengths of road in the local traffic network. Five new AQMA were declared the most notable of which is the A226 One Way System Gravesend AQMA. The council's second Air Quality Action Plan was drafted, and work began on improving the air quality in these areas.

2. The Annual Status Report (ASR)

- 2.1 The drafting and submission of annual progress or status reports to Defra are mandatory for all councils with declared Air Quality Management Areas.
- 2.2 The ASR includes an executive summary of the main report, including the conclusions and recommendations.
- 2.3 The main body of the report provides information on how many AQMA are declared (section 2.1, table 2.1), what monitoring is being undertaken (section

- 3.1), and provides both the results and comment on the monitoring for the last calendar year and also a summary of the previous 4 years to that (section 3.2).
- 2.4 There are two types of monitoring carried out by Gravesham in the borough:
- 2.4.1 Continuous monitoring of nitrogen dioxide and particulate matter (PM10) by air quality analysers at the council's two air stations located within or close to the A2 Trunk Road AQMA and the Northfleet Industrial Area AQMA.
- 2.4.2 Passive diffusion tubes for monitoring nitrogen dioxide located in areas with heavy traffic flows, areas with background levels of pollutants and also in areas where development will or is very likely to happen or is happening. The latter is to ascertain the baseline in the area to ensure it is apparent what impact new developments are having on the local air quality.
- 2.5 The annual report also includes the progress made on the actions within the council's two action plans. (Table 2.2.)
- 2.6 The appendices include maps of the four current AQMAs.

3. The Impact of Poor Air Quality on Health

- 3.1 Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children, the elderly, and those with existing heart and lung conditions.
- 3.2 Poor air quality is the largest environmental risk to public health in the UK, as long-term exposure to air pollution can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy. [Health matters: air pollution - GOV.UK \(www.gov.uk\)](https://www.gov.uk/health-matters/air-pollution)
- 3.3 Defra's "[Air quality appraisal damage cost guidance](#) July 2021" advises that the mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages with the total estimated healthcare cost to the NHS and social care of £157 million in 2017 according to Public Health England's "[Estimation of costs to the NHS and social care due to the health impacts of air pollution - summary report](#) May 2018".

4. Air Quality in Gravesham

- 4.1 During 2021, all passive monitoring locations except five were compliant with the NO₂ AQS objective; thirty-seven sites reported increases from 2020, with the remaining twenty-four sites reporting decreases.
- 4.2 It is likely that the reduced traffic volumes in 2020 during the pandemic has influenced what now appears to be the increase in concentrations at 56% of passive monitoring locations in 2021.
- 4.3 The five that demonstrated not to be compliant were within the A226 One-way System. Four of these were not exceeding during 2020 and the levels monitored in 2021 were representative of pre-pandemic levels.
- 4.4 Both continuous automatic analysers for nitrogen dioxide and the analysers monitoring particulate (PM10) demonstrate long term compliance with the air quality standards objectives.

5. Going Forwards

- 5.1 The council will continue to use their passive monitoring network to determine whether AQMAs need amending or whether there are any new identifiable areas of concern. Gravesham Borough Council are focused on reducing annual mean NO₂ exceedances of the national objective. These locations are situated in the one-way system in Gravesend.
- 5.2 The council will continue to work with its partners to improve air quality:
 - 5.2.1 The National Highways (NH) has responsibility for the management of the A2 Trunk Road and as such is responsible for any direct actions proposed for the AQMA along the A2 Trunk Road in Gravesham.
 - 5.2.2 Kent County Council (KCC), as the local transport authority, is responsible for the management of the local road network and as such is responsible for any direct actions proposed for the AQMAs in the town centre in order to reduce road traffic emissions. Gravesham Borough Council works together with Kent County Highways to improve air quality within these AQMAs and throughout the Borough.
- 5.3 The review of the declared AQMAs will be completed utilising a detailed modelling assessment to ascertain whether any significant improvements to pollution levels have been made to allow for boundary adjustment or removal. The outcomes of the detailed assessment will inform an update to the now outdated existing AQAPs which were published in 2004 and 2006.
- 5.4 The council will revoke the AQMA declarations for nitrogen dioxide when possible, following a suitable sustained reduction in levels; however the declaration for the Northfleet Industrial Area AQMA for windblown particulate matter (PM₁₀) will be kept in place in order to ensure PM₁₀ concentrations are continually monitored.
- 5.5 It will ensure through the utilisation of the planning process that measures are implemented and maintained to ensure that the construction phases of the significant level of mixed-use development in the North Industrial Area AQMA, which is planned to take place over at least the next decade, does not cause an increase in PM₁₀ levels.
- 5.6 The declaration of the existing AQMAs and the adoption of Action Plans and Strategies continue to enable the Council to make progress on improving air quality within the Borough, for residents and visitors. This has been achieved by working with partners, including Kent County Council, Kent County Highways, National Highways Agency, and the Environment Agency.

6. Conclusion and Priorities

- 6.1 The existing AQAPs were published in 2004 and 2006 with most of the measures having been significantly progressed or completed and are therefore considered out-of-date.
- 6.2 Whilst there has been significant progress with the measures in the existing action plans, leading to the revocation of three of the seven AQMAs in the borough, major additional work that needs to be undertaken includes:
 - 6.2.1 The development of a new AQAP that incorporates all AQMAs into one AQAP; and
 - 6.2.2 The implementation of the Climate Change Management Plan (CCMP)

- 6.3 It is the intention of the Council to review and update the existing AQMAs using the most up-to-date information and analysis and to present a combined AQAP to cover all of the declared AQMAs.
- 6.4 The council is focused on reducing annual mean NO₂ concentrations via the implementation of currently identified measures, but to also through development of new measures as part of the AQAP update. Priorities for the next reporting year are:
 - 6.4.1 To complete and implement the new AQAP
 - 6.4.2 To implement and continue to progress the Climate Change Management Plan.
 - 6.4.3 Continue working with partners in the Kent and Medway Air Quality Partnership (K&MAQP) to improve air quality throughout the area

7. Appendices

- 7.1 The following document is relevant to the report:
 - 7.1.1 Appendix 1 – [GBC Air Quality Annual Status Report 2022](#)

8. Background Documents

- 8.1 There are no background documents.

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Secondary Implications	
Risk Assessment	Failure to deliver the Annual Status Report (ASR) to Defra each year and failure to demonstrate within the ASR that the council is implementing the actions within the Air Quality Action Plans, will invoke action from Defra to ensure that the council is taking its obligation to comply with the requirements of the Local Air Quality Management (LAQM) Regime.
Data Protection Impact Assessment	<i>A data protection impact assessment (DPIA) should be carried out at the start of any major project involving the use of personal data or if you are making a significant change to an existing process.</i>
	a. Does the project/change being recommended through this paper involve the processing of personal data or special category data or criminal offence data ? A definition of each type of data can be found on the Information Commissioner's Office website via the above links. No
	b. If yes to question a, have you completed and attached a DPIA including Data Protection Officer advice? N/A
	c. If no to question b, please seek advice from your nominated DPIA assessor or the Information Governance Team at gdpr@medway.gov.uk . No personal data is handled when carrying out the ASR work.
Equality Impact Assessment	a. Does the decision being made or recommended through this paper have potential to cause adverse impact or discriminate against different groups in the community? If yes, please explain answer. No - The Environment Act 1995 and the Local Air Quality Management Regime are fully inclusive and affect all people equally.
	b. Does the decision being made or recommended through this paper make a positive contribution to promoting equality? If yes, please explain answer. N/A
	<i>In submitting this report, the Chief Officer doing so is confirming that they have given due regard to the equality impacts of the decision being considered, as noted in the table above</i>
Crime and Disorder	The improvement in air quality improves feelings that the environment is clean and safe.
Digital and website implications	The website will be updated as necessary.
Safeguarding children and vulnerable adults	No direct implications.