

Climate Change Executive Advisory Panel 20th October 2021

Report Title	Air Quality – North Northamptonshire
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List of Appendices

Appendix A – Annual Status Reports from each sovereign area.

1. Purpose of Report

- 1.1 To provide a position statement requested by the Climate Change Advisory Panel on:
- Current air quality in North Northamptonshire
 - Current hot spots of poorer air quality
 - What is being done to manage, measure and monitor air quality
 - What is proposed for consideration, to improve local air quality and raise public awareness

2. Executive Summary

- 2.1 Local Air Quality Management is a legal requirement under Part IV of the Environment Act 1995. There is a prescribed upper air quality limit value for Nitrogen dioxide (NO₂) and particulates, together with other air pollutants, that the general population should not be exposed to in order to protect public health. These limits are legally binding through EU and UK law.
- 2.2 In West Northamptonshire, the urban areas of Northampton and Towcester have been identified as having elevated levels of air pollution and Air Quality Management Areas (AQMA's) have been designated in those areas where there is relevant exposure to NO₂. There are currently no other AQMA's in the County.

- 2.3 Although air quality levels are not exceeding prescribed limits within North Northamptonshire, we are required to take action to improve local air quality. The primary main reason as to why people are exposed to levels of air pollution which can damage health is from traffic-related emissions, but our society and economy is structured around the effective and efficient movement of people and goods. The challenge is to reduce emissions, without adversely impacting on the economy and our need to travel.

3. Recommendations

- 3.1 The Climate Change Advisory Panel is asked to support the following considerations:
- a) To continue with the current arrangements of monitoring air quality as outlined below in section 4, in line with the National Air Quality Objectives.
 - b) Consider wider improvements to educate members of the public about air pollution, by hosting local events such as national Clean Air Day.
 - c) Organise a wider health and wellbeing event for North Northants to showcase efforts to manage air quality in the area and promote work to improve it.
 - d) To continue to regulate polluting industries under the Environmental Permitting (England and Wales) Regulations 2010 and promote additional best practice.
 - e) Ensure new developments meet the requirements of planning policies and guidance in relation to air quality.

Reasons for recommendation

- 3.2 The endorsement of these recommendations will ensure the Council continues to maintain its commitment to monitoring, reviewing and taking measures to improve local air quality.

4. Report Background

- 4.1 Each sovereign area currently monitors NO₂ concentrations by a network of diffusion tubes which are replaced each month and sent off to the lab for analysis. The network currently consists of 17 tubes in Corby, 33 in East Northants, 39 in Kettering and 11 in Wellingborough.
- 4.2 Each area currently monitors air quality levels through analysis of compliance against the NO₂ annual mean air quality objective of 40µg/m³. There are no Air Quality Management Areas (AQMA's) across North Northamptonshire, due to a history of non-exceedances.
- 4.3 Prior to becoming North Northamptonshire Council, all sovereign Councils

utilised the East Midlands Air Quality Network (EMAQN) Planning Guidance - 'Air Quality and Missions Mitigation - Guidance for Developers'. The EMAQN is a group of environmental health, public health, planning and transport professionals who aim to improve air quality across the East Midlands by sharing knowledge and best practice. This technical planning guidance had been prepared in conjunction with the EMAQN and had been developed to supplement the National Planning Policy Framework (NPPF). It requires all developers to have considered this document and its requirements when preparing to submit planning applications. This document is not a formalised Supplementary Planning Guidance Document (SPD) at present, other than for the Wellingborough area. An SPD adds detailed guidance to existing local planning policy and guides developers dealing with planning applications on how to fulfil existing requirements, assess air quality levels on development proposals and provides examples of mitigation.

4.4 The document includes a methodology for the provision of compensation for offsetting the effects of a new development on air quality and seeks to encourage the following types of improvements via the planning process for future developments;

- Develop consistent electric vehicle (EV) re-charging standards for new developments across the East Midlands, promoting a step change in the uptake of low emission vehicles;
- Install gas-fired boilers that meet a minimum standard or alternative heat sources be considered;
- Encourage active travel (cycling/walking) infrastructure including, but not limited to:
 - Developing cycle routes or pedestrianised areas and infrastructure to support low emission modes of transport;
 - Improved facilities to encourage cycling or other non-motorised travel (shower facilities, secure cycle storage etc); and
 - Improved signage in terms of the promotion of sustainable and low emission methods of transport

4.5 Attention also needs to be given to new developments planned, such as the Sustainable Urban Extension (SUE) of West Corby. This development will result in additional traffic and vehicular movements during the construction phase and when new residents move into the area. As towns and other areas across North Northamptonshire grow, with new housing developments, air quality monitoring may need to be adjusted to reflect areas where receptors may experience higher concentrations of NO₂. This will be kept under review.

5. Issues and Choices

PM 2.5 and PM10

5.1 As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of PM2.5 (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that PM2.5 has a significant impact on human health, including

premature mortality, allergic reactions, and cardiovascular diseases. The following measures are being taken to address PM2.5:

- The Council is currently investigating the means to monitor concentrations of PM2.5 or PM10.
- As part of the National Carbon Reduction Initiative, the Council is encouraging the planting of trees across North Northamptonshire. In doing so it is hoped that the planting of trees will reduce concentrations of PM2.5 in certain areas, as multiple studies show that increased number of trees can lower concentrations.
- Planning conditions are imposed on planning consents, requiring the submission and approval of construction/demolition management plans, where the development is likely to generate dust near to an existing residential area. These plans include requirements over dust and mud control, such as damping down road areas, proactively planning mitigation measures in response to weather forecasts and proactively carrying out site inspections regularly to assess if further mitigation is needed in response to local conditions.
- Environmental Protection Teams actively engage with developers in the event of complaints, to ensure that the required standard of dust/mud control is in place, taking enforcement action where necessary.
- Some parts of North Northamptonshire are covered by Smoke Control Areas and we actively encourage the use of smokeless fuels and/or approved appliances that burn without emitting smoke within these areas.
- Environmental Protection Teams actively respond to complaints about the burning of waste or dust/mud from construction sites etc. and take steps through enforcement action where necessary to ensure that there is an adequate level of control over site activities. This will reduce the generation of PM2.5.
- Taxi licensing – Hackney Carriages and private hire vehicles are restricted by an age policy in some areas. A consolidated North Northamptonshire policy is currently being produced which will include enhanced controls designed to improve air quality.
- Environmental Permitting – installations such as incinerators and the crematorium are inspected regularly to ensure that they are compliant with permit conditions that require the control and abatement of total particulate matter to the atmosphere.
- Local highways and roads are wet swept as part of a proactive maintenance scheme to reduce the amount of dust build up, that could become mobile in warmer weather.

Corby

- 5.2 Air quality in Corby has continued to meet prescribed standards despite significant changes in the area in terms of growth. Corby's 2020 Annual Status Report (ASR) (reporting 2019 data) details that there are no exceedances of NO₂. Since NO₂ concentrations are low, the Corby area does not have any continuous monitoring in place to measure Particulate Matter or Sulphur Dioxide levels.

- 5.3 Corby's 2019 ASR indicated that the site with the highest concentration of NO₂ with 28.4 µg/m³, was the George Street site, which is opposite the Cube. The limit is 40µg/m³ which is set by DEFRA. Historically, the George Street site has experienced the highest concentrations in the Corby area, except for in 2017 (reported in the 2018 ASR) when Elizabeth Street reached 26.4 µg/m³. This was likely due to long duration building work commencing on the Willow Place surface level car park.
- 5.4 George Street is a main thoroughfare and connecting road between the North and South of the town and despite having traffic restrictions in place, anecdotally it experiences a lot of traffic. Similarly, it is a bus waiting point and there are 3 taxi ranks located on the street. In recent years, Corby has seen an influx of businesses using food delivery services such as UberEats and JustEat, which has led to a rise of traffic entering George Street to access town centre food venues. Regular parking is noted along the double yellow lines and loading bays along Cardigan Place, which incidentally is very close to the diffusion tube site.
- 5.5 Addressing parking issues on George Street and ensuring compliance with the Traffic Order could enhance air quality in the area. Anecdotally it has been noted that many of the vehicles on Cardigan Place are left idling for some time, which may have a negative effect on air quality in this area. Whilst there are only a limited number of residential properties on this street, receptors are present in the form of pedestrians using the town centre and waiting for public transport. Enforcement of the Traffic Order and of double yellow line restrictions would help set a precedent to prevent idling and illegal parking.

East Northamptonshire

- 5.6 East Northamptonshire is predominantly rural in nature and the main source of air pollution within the district is from vehicular emissions originating from the network of road links, notably the A5028, A6 and A45. Within urban areas, such as Rushden and Higham Ferrers, there is a high level of congestion at peak times leading to an increase of both NO₂ and PM emissions. However, the opening of the A6 Rushden and Higham Ferrers bypass has reduced the amount of traffic travelling through Rushden and Higham Ferrers.
- 5.7 Annual mean NO₂ concentrations at all monitoring locations remain below the NO₂ annual mean air quality objective of 40µg/m³, therefore the analysis of the recent annual monitoring results indicates that there will not be any AQMAs declared at this time.

Kettering

- 5.8 As with all the other areas, the main pollutant of concern is NO₂, which is primarily produced by road traffic. In 2020, there were no monitored exceedances of the national objective (40µg/m³) across Kettering town, Rothwell and Burton Latimer. There was one reported exceedance during 2019 in Rothwell, but this exceedance has been addressed in 2020. It is now

recommended that an Air Quality Management Area (AQMA) is not required for the Kettering Borough.

- 5.9 New monitoring locations were introduced in areas where potential for the national objective to be exceeded were identified, but preliminary annualised results suggest that no exceedances are likely at these new locations.
- 5.10 The two locations in the Kettering Area that could be said to be of greatest concern, are monitoring locations KT11 (the junction of London Road and Bowling Green Road) which showed an exceedance of the national objective in 2017 (but not since) and RW4 (Façade of ST Flooring in Rothwell) which showed an exceedance in 2019 (but not in 2020 when we were in the middle of the pandemic). London Road / Bowling Green Road, is a junction in the centre of Kettering and therefore subject to a relatively high volume of traffic.
- 5.11 Four car parks have EV charging points and 2 further points (4 charging docks) have been installed at Warren Hill crematorium.

Wellingborough

- 5.12 The current NO₂ diffusion tube sites were chosen to provide local data on the locations with the highest level of pollutants (even though the long-term exposure to individual members of the public is likely to be small); locations that appear to be representative of likely residential exposure; and a rural background location where the level of NO₂ should be low as a reference point.
- 5.13 In 2016 some locations of the NO₂ tubes were changed based on noise map data and traffic count information from highways. In 2018 in response to a local area action group's concern, monitoring was undertaken in the Broad Green area and works were undertaken to improve traffic flows in consultation with highways and the action group.
- 5.14 The diffusion tube monitoring results show that NO₂ concentrations within Wellingborough generally meet the air quality objectives. The area around Silver Street does however require some further attention and ongoing monitoring. This location is on a narrow street in the town centre with a street canyon effect and is close to the roadside. Planning applications received for this area are given particular scrutiny in terms of local air quality.

Collective Measures to Reduce PM_{2.5} and PM₁₀

- 5.15 The Annual Status Reports have collectively demonstrated that overall, all background concentrations of PM_{2.5} are well below the 2020 annual mean objective. Due to the health effects attributable to PM_{2.5} pollution through exposure, the Council are continuing to take measures to reduce PM_{2.5} concentrations, as follows:
- Require planning applications that have potential to emit dust during site preparation and construction, to submit a construction/demolition management plan that addresses dust mitigation and management practices. This includes

measures such as regular monitoring of dust leaving the site boundary, damping down roads, considering the weather conditions, ceasing operations if conditions are not appropriate.

- Investigate complaints about dust and effluvia, taking enforcement action if appropriate.
- Encourage residents not to burn garden waste and instead use the garden waste recycling scheme.
- Provide good practice advice on how to operate an open house fire or log burner.
- Ensure all Hackney Carriages and private hire vehicles are restricted by an age policy.
- Ensure all industrial processes with an Environmental Permit are inspected regularly to make certain they are compliant with the permit conditions. Such conditions can require the control and abatement of total particulate matter to the atmosphere.
- Local highways and roads are wet swept as part of a proactive maintenance scheme to reduce the amount of dust build up that could become mobile in warmer weather.
- Continue to work in partnership with schools for the 'anti-idling' campaign and use banners promoting this message outside of schools to display it on their gates etc.
- Encourage physical activity and healthy lifestyle choices to improve the environment and health of the population will be beneficial to air quality.
- Development mitigation measures to encourage active travel (cycling/walking) infrastructure. (A project East Northamptonshire has been working on is the East Northamptonshire Greenway (the Greenway).
- Make walking and cycling routes available and accessible.
- Provide safer routes for young people who walk and cycle to schools.
- Promote further usage of the electric scooter schemes, leading to less personal cars on the road.

Electrifying Northants Forum

- 5.16 Environmental Protection Teams have been part of the Electrifying Northants Forum, working with former NCC colleagues to identify potential sites for on-street locations for charging. Sites have now been put in place under the VPACH banner (Virgin media park and charge) and funded by Innovate UK.

Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020

- 5.17 These regulations are intended to reduce emissions of particulate matter (specifically PM 2.5) from burning of wood and other solid fuels in residential settings. Regulations will phase out the use of bituminous coal and unseasoned wood in residential heating appliances. This includes supervision of solid fuels by local authorities. It is anticipated that removal of coal and unseasoned wood from the market will provide significant reduction in PM

emissions from residential burning. Currently the local authority enforces amongst other things smoke nuisance (Environmental Protection Act, 1990). Under the Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020, Officers will need to consider whether solid fuel for domestic burning meets the requirements of the regulations.

Future DEFRA Grant submission

- 5.18 The potential to put together a joint bid with West Northamptonshire Council in relation to Particulate Matter and improved public education, for next year's round of grants is being investigated. The short time frame and limited resources available to produce the bids, does however make it difficult to comply with the tight deadlines, but advanced preparation may assist for next year's submission.

6. Implications (including financial implications)

6.1 Resources and Financial

A small number of officers within the Environmental Protection teams across Regulatory Services, are trained and equipped to carry out air quality monitoring assessments by way of installing and removing diffusion tubes each month off specific lamp posts and sending them off to a laboratory for analysis. An Air Quality consultant is paid annually to analyse all the data from each sovereign area and to write and produce the Annual Air Quality Status Reports. Accordingly, no additional resources or finances are required for the work that we do, but additional staffing resources would assist with the collective improvements to be properly implemented and maintained.

6.2 Legal

- 6.2.1 The Council must continue to meet its requirements under Part IV of the Environment Act 1995.

6.3 Risk

- 6.3.1 There are no significant risks to note arising from the proposed recommendations in this report, but to do nothing places the Council at risk of not meeting the requirements of the Environment Act 1995, increasing poor air quality and therefore increasing the likelihood of an AQMA being declared.

6.4 Consultation

- 6.4.1 Internal Officer consultation has taken place to inform the drafting of this report and its recommendations. There is no legal requirement upon the Council to undertake any form of formal consultation in respect of air quality but instead at a later date, wider engagement in terms of awareness and education will

take place, through activities such as those to be undertaken on national Clean Air Day.

6.4.2

6.5 Climate Impact

6.5.1 It is considered that the implementation of the recommendations would only have a positive impact on climate change. Also, to ensure the Council have no potential AQMA's in the future, it is recommended that monitoring is continued on the basis that concentrations may be elevated in 2021 and beyond in the aftermath of the COVID-19 pandemic when there was less traffic on the roads.

6.6 Community Impact

6.6.1 It is considered that there are no community impacts associated with this report.

7 Background Papers

7.1 Annual Status Reports for each area