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Strategic Planning and Environment Overview and Scrutiny Committee

Report for:	Strategic Planning and Environment Overview and Scrutiny Committee
Title of report:	Air Quality Action Plan and Air Quality Management Area Review
Date:	1 st Feb 2023
Report on behalf of:	Councillor Banks, Portfolio Holder for Communities
Part:	I
If Part II, reason:	N/A
Appendices:	1. Annual Mean Monitoring Results for Air Quality Monitoring Area 3 2. Draft Revocation Order for Air Quality Monitoring Area 3
Background papers:	2021 Air Quality Annual Status Report Air Quality Action Plan 2019 -2024 (updated post pandemic) Hertfordshire Local Authorities Report on Particulate Matter (PM ^{2.5}) in Ambient Air 2020
Glossary of acronyms and any other abbreviations used in this report:	LAQM Local Air Quality Management AQMA Air Quality Management Area AQMP Air Quality Management Plan AQASR Air Quality Annual Status Report NOx Nitrogen Oxides PM2.5 particulates of max size 2.5 microns HCC Herts County Council CEE Climate and Ecological Emergency strategy DEFRA Department of Environment, Food and Rural Affairs EVs Electric Vehicles ORCS On Street Residential Charging Scheme

Report Author / Responsible Officer

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Corporate Priorities	A clean, safe and enjoyable environment
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	<p>Ensuring economic growth and prosperity</p> <p>Ensuring efficient, effective and modern service delivery</p> <p>Climate and ecological emergency</p>
Wards affected	All
Purpose of the report:	To provide an update on progress made by the team and partners against the Air Quality Action Plan and provide background to the proposed revocation of an Air Quality Management Area.
Recommendation (s) to the decision maker (s):	<ol style="list-style-type: none"> 1. That the content of the Air Quality Action Plan 2019-24 be noted. 2. Agreement be given to begin the revocation process for the Northchurch Air Quality Management Area. 3. Agreement be given to widening air quality monitoring to include PM 2.5 using portable units.
Period for post policy/project review:	

1 Introduction/Background:

Air pollution is associated with a number of adverse health impacts and disproportionately affects the most vulnerable in society: children, the elderly and those with existing heart and lung conditions. Since 1997 Local Authorities in England have been required to undertake regular assessments and reviews of their local air quality. This involves comparing local air quality against nationally set objectives for a range of pollutants to protect health and the environment. As part of this work Local Authorities identify areas of concern where these objective limits are unlikely to be met and there is a relevant exposure such as housing, schools, hospitals etc. Where objectives are unlikely to be met Local Authorities must declare an Air Quality Management Area (AQMA) and put in place a plan to improve local air quality. This process is known as Local Air Quality Management (LAQM).

In 2012 three Air Quality Management Areas were declared in the Dacorum area. These are:

AQMA 1: Lawn Lane, Hemel Hempstead

AQMA 2: London Road, Apsley

AQMA 3: High Street, Northchurch

These were declared due to an exceedance of the annual mean objective for nitrogen oxides (NO^x) primarily due to contributions from road transportation sources.

2 Key Issues/proposals/main body of the report:

Levels at AQMA 1 and AQMA 2 have remained consistently above the objective level. In contrast levels at AQMA 3 in Northchurch have been showing compliance for the last five years, that is pre lockdown,

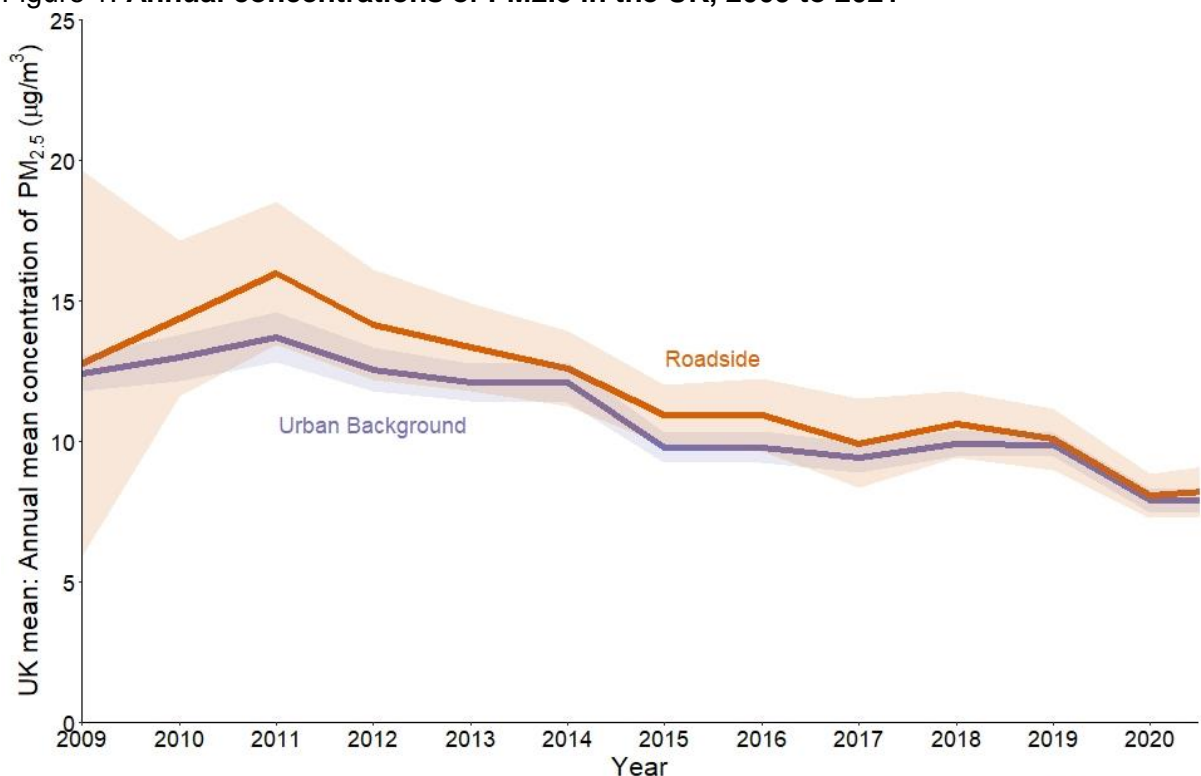
during and post lockdowns. With the onset of the Covid pandemic in 2020 and the government instruction to stay home/local or only travel when essential and the subsequent reductions in local and regional traffic activity translated into substantial improvements in NO^x levels at AQMA locations 1 and 2 in Lawn Lane, Hemel Hempstead and London Road, Apsley. However these results are being treated as exceptional and directly linked to the unprecedented impact of the pandemic restrictions. Whilst levels at AQMA 3 have remained compliant with road traffic having returned to the new normal however levels at the other two locations have reverted back to their pre-pandemic levels.

At present we monitor air quality via passive diffusion tubes (currently 68 tubes are used at locations across the Borough and are changed monthly). We also have a real time analyser located in AQMA 3 at Northchurch. We measure for both NO^x and PM 2.5 (fine particulate matter) at this location. PM2.5 levels are below the objective level at this location.

Particulate Matter (PM2.5)

Roadside PM2.5 pollution nationally has decreased overall despite a period of relative stability between 2015 and 2019. In general, annual average concentrations of PM2.5 at the roadside have decreased from 12.8 µg/m³ in 2009 to 8.3 µg/m³ in 2021, rising by 0.26 µg/m³ since the lowest point in 2020. This is shown in figure 1 below.

Figure 1: Annual concentrations of PM2.5 in the UK, 2009 to 2021



Source: Ricardo Energy & Environment

We are currently in discussion with Hertfordshire County Council (HCC) regarding the expansion of monitoring for PM 2.5 across Dacorum. HCC have their own network of analysers that are monitoring across Hertfordshire as a whole and also utilise our data from the Real Time Analyser at Northchurch. We are considering the purchase and use of further, mobile, units that we can deploy to locate in any areas where objective levels may not be met across the Borough so as to inform future actions. There is at present no statutory obligation for Local Authorities to monitor concentrations of PM^{2.5} however there is an expectation that Local Authorities will work to reduce emissions/concentrations of PM^{2.5}.

Annual Status Report 2021. Summary:

A priority for the Council during the last 2 years has been responding to the impact of COVID-19. Officers within the Environmental and Community Protection team were redeployed to prioritise functions linked to local test and trace and ensuring compliance with various iterations of COVID regulation connected to the operation of business and their COVID secure obligations. Therefore opportunities to progress actions to improve air quality were limited to addressing the previous commentary provided by DEFRA in respect of the Council's draft Air Quality Action Plan (AQAP), specifically updating source apportionment work and undertaking a feasibility assessment and prioritisation of AQAP measures.

We are now refocused on work around Air Quality post-Covid and with the re-initiation of the Air Quality Steering Group in June 2022.

A Climate Emergency and Sustainability Programme Lead Officer was appointed in July 2020. The role of this officer is to develop and support the delivery of the Climate and Ecological Emergency strategy (CEE) and action plan in order to achieve these targets. The four key focuses for this CEE work are sustainable transport, energy use in buildings, sustainable communities and biodiversity. The officer has been invited to, and is actively involved in, the Air Quality Steering Group from June 2022.

Some of the early work of the draft Air Quality Action Plan (AQAP) has been transferred to the CEE Action Plan and work has begun on the development of an Electric Vehicle Strategy for the borough. We intend to develop this EV strategy further when the Government releases its Transport Decarbonisation Plan and Hertfordshire County Council releases its own Electric Vehicle Strategy. Both of these documents impact the work that we can do locally. We have made progress in the following areas:

- An internal Sustainable Transport Plan- Climate Emergency group has been established, with an Electric Vehicle sub-group.
- An Electric Vehicle Charging Infrastructure study has been carried out with a sustainability consultant. The key highlights from this work to are:
 - Within Dacorum it is anticipated we will have at least 30,000 EVs by 2030
 - At least one third of households in the district are unable to charge at home
 - Between 600-700 on-street EV charge points will be required to meet demand
- An ongoing Electric Vehicle Residents Survey has been launched on our website which has already had nearly 2000 responses.
- Dacorum have committed to apply to the government's On-Street Residential Charge Point Scheme (ORCS) this financial year
 - Potential sites for EV charge points have been identified
 - Feasibility studies for these sites are in the process of being carried out
 - We have partnered with a supplier to deliver these additional charge points
 - Both the resident's survey and consultancy report were designed to be used as evidence for this ORCS application.

One of our internal high level targets is to decarbonise the Council's fleet by 2030. This will entail creating sufficient charging infrastructure as well as procuring the vehicles. We will also be working on a variety of behavioural change initiatives within the borough to encourage more sustainable transport.

Aside from transport, additional studies are also taking place into the current tree stock and future tree planting strategies are being developed.

Air Quality Action Plan 2019-24. Progress:

With partners we have made the following progress on the Air Quality Action Plan Objectives:

- **Objective - Influence emission reduction from new developments**

Planning conditions have been reviewed and implemented regarding travel plans, electric vehicle charging points and cleaner energy sources (low NOx boilers and alternative heat sources such as heat pumps)

- **Objective - Potential to relocate bus stops and on-street parking in the Northchurch AQMA**

This is in progress via Hertfordshire County Council as the Highways Authority as part of the wider infrastructure strategy. Numerous improvements have been actioned in this location over recent years including an changes to traffic light timing /management and an assessment of vehicle pinch points which have contributed to the sustained reduction in NOx in this area,

- **Objective - Clean Air Zone (CAZ) feasibility study**

A Clean Air Zone feasibility study was conducted in 2019 with the results finding this not to be feasible. Given the borough wide improvements in Air Quality it is unlikely that this will be revisited.

- **Objective - Private hire and taxi vehicle emissions policy**

Working with HCC via the Hertfordshire Climate Change and Sustainability Partnership this has now been put in place and will not only apply to Dacorum taxis but is being rolled out across the County.

- **Objective - Emission based parking charges**

This objective was discussed with the HCC Air Strategy Lead Officer it was found that, beyond offering free parking to vehicles using EV charging points, this is a very difficult proposal to manage with an expensive start-up cost so this was not pursued further.

The following Objectives remain outstanding and will remain part of the Air Quality Action Plan Objectives until these have been explored with partners:

- Workplace parking levy
- Advanced quality bus partnership

Promoting sustainable travel and discouraging the use of single car journeys.

Northchurch Air Quality Management Area:

With the above background in mind it is proposed to revoke AQMA 3 at Northchurch in consultation with DEFRA.

Before deciding to revoke an AQMA, DEFRA advise the following:

Pollutant concentrations may vary significantly from one year to the next, due to the influence of meteorological conditions, and it is important that authorities avoid switching between declaring, revoking and declaring again, due to these variations. Before revoking an AQMA on the basis of measured pollutant concentrations, the authority therefore needs to be reasonably certain that any future exceedances (that might occur in more adverse meteorological conditions) are unlikely. For this reason, it is expected that authorities will need to consider measurements carried out over several years or more, national trends in emissions, as well as local factors that may affect the AQMA, including measures introduced as part of the Action Plan, together with information from national monitoring on high and low pollution years.

We are confident that future exceedances of objective levels at AQMA 3 at Northchurch are unlikely. We have considered the current planning proposal for the Marshcroft Development and have required modelling be completed by the applicants to ensure this development will not have a negative impact on air quality at this location which could require the need for us to need to again declare an AQMA at this location.

3 Options and alternatives considered

There are two options for the Northchurch AQMA at present, these are:

- Revocation of the AQMA at Northchurch or,
- Continuation of monitoring at this location.

4 Consultation

Consultation was carried out as part of establishing the AQMAs.

5 Financial and value for money implications:

Budget provision for replacement monitoring equipment is included within the capital programme.

6 Legal Implications

Legal requirements referred to in text of report.

7 Risk implications:

As previously advised officers are confident that future exceedances of the objective level at this location are unlikely however there is no guarantee that this will remain so due to the many variables that can impact on air quality that are outside of our control.

8 Equalities, Community Impact and Human Rights:

Community Impact Assessment carried out and no negative impacts have been highlighted.

Human Rights – There are no human rights implications arising from this report.

9 Sustainability implications (including climate change, health and wellbeing, community safety)

Poor air quality has a significant damaging impact on health. The LAQM approach seeks to reduce this

10 Council infrastructure (including Health and Safety, HR/OD, assets and other resources)

N/A

11 Conclusions:

This report notes progress in implementing the AQMP 2019-24 and recommends revocation of the AQMA Northchurch because monitoring shows consistent achievement of the target level for NO_x.

Appendix 1. Annual Mean NO_x Monitoring Results for AQMA 3 at Northchurch

Year

Location	2016	2017	2018	2019	2020	2021
DC31	42.4	42.3	33.0	32.7	32.0	30.1
DC32	43.6	40.4	34.2	32.9	33.2	31.2
DC33	40.5	42.6	33.6	33.9	32.6	31.2
DC35	33.3	34.2	36.2	38.6	26.7	27.1
DC36	34.6	33.1	35.5	37.6	27.1	26.9
DC37	35.2	35.2	37.8	37.2	27.4	27.9
DC38	26.1	23.9	25.4	23.8	19.0	18.1
DC39	25.4	23.4	25.9	24.3	19.2	18.9
DC40	24.8	23.9	24.8	24.9	18.9	18.7

NB the objective level for NO_x is 40 µg/m³

The data for 2022 is currently not complete (December's diffusion tubes are yet to be processed) and has not been adjusted in line with Defra reporting requirements so we are unable to provide this at present, however the reduction trend is continuing across the board.

This section should summarise the main findings and implications of the report but not repeat the recommendations