



## London Borough of Enfield

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<b>Report Title</b>	ULEZ Implementation
<b>Report to</b>	Environment & Climate Action Scrutiny Panel
<b>Date of Meeting</b>	12 March 2024
<b>Cabinet Member</b>	Councillor Jewell
<b>Executive Director / Director</b>	Brett Leahy
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<b>Classification</b>	Part 1 Public

### **1. Purpose of Report**

- 1.1 To report on the impact of the Ultra Low Emission Zone (ULEZ) following expansion to cover the whole of Greater London on 29<sup>th</sup> August 2023.

### **2. Main Considerations for the Panel**

- 2.1 The ULEZ has set emission limits for all vehicles entering and driving in Greater London; any vehicle which does not comply with the ULEZ emissions limits must pay a daily charge of £12.50 to drive in London. Following implementation there should be a change in the emissions concentrations within the borough, this is most likely to be noticeable along the busiest roads, such as the A10 and A406. Data comparison is provided in the report for air pollution measurements before ULEZ expansion and after.

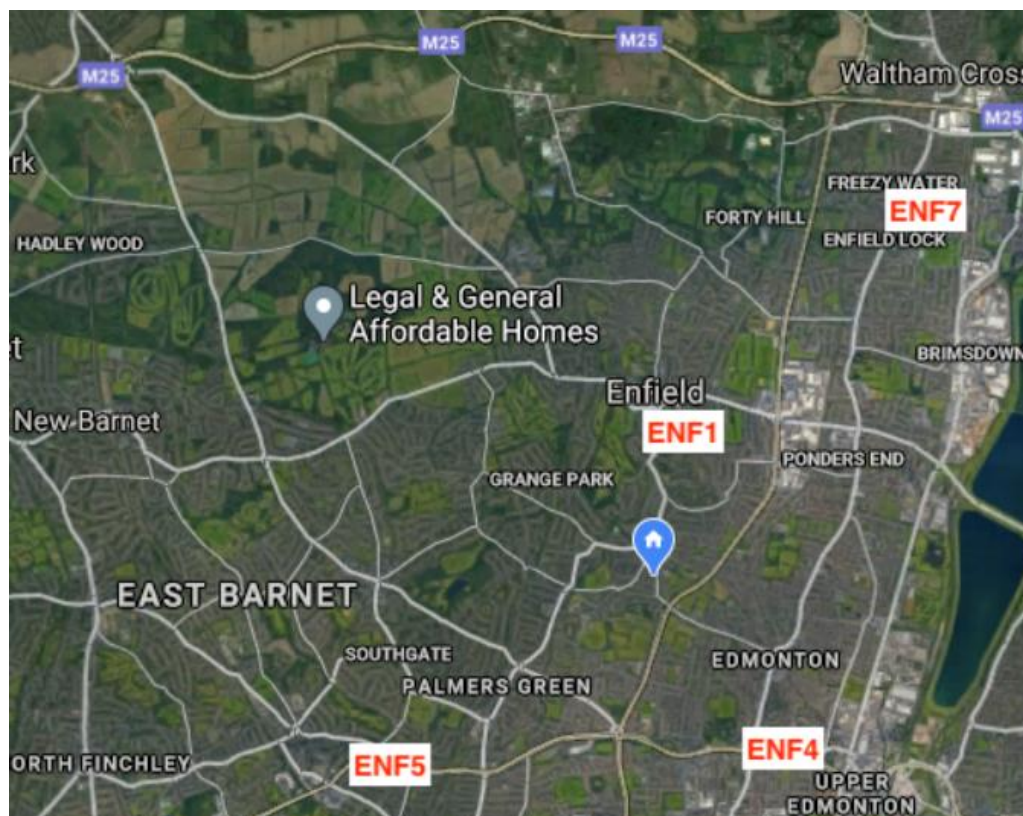
### 3. Background and Options

- 3.1 The Environment Act 1995 introduced the system of local air quality management (LAQM) and consequently all local authorities in the United Kingdom have a legal responsibility to review and assess the air quality within their areas for seven key pollutants:
- Nitrogen dioxide
  - Particulates (PM<sub>10</sub>)
  - Sulphur dioxide
  - Carbon Monoxide
  - Lead
  - Benzene
  - 1,3-butadiene
- 3.2 The Air Quality Standards Regulations 2010 set out objective levels for each of the abovementioned pollutants and a target date by which the objectives have to be met. The objective levels are set, using expert medical advice, at a level at which even the most sensitive individuals would not feel any adverse health effects.
- 3.3 Should a local authority decide that they are unlikely to meet any of the objectives set out in Regulations they must declare an Air Quality Management Area (AQMA).
- 3.4 Across the whole of London boroughs have declared AQMAs for nitrogen dioxide and PM<sub>10</sub> mainly due to road traffic emissions. The whole of the London Borough of Enfield is an AQMA for nitrogen dioxide and PM<sub>10</sub>.
- 3.5 The Mayor of London is responsible for air quality in the capital and is required to include in his Air Quality Strategy policies and proposals for the achievement of national air quality standards and objectives prescribed in regulations.
- 3.6 As part of the approach to reduce concentrations of nitrogen dioxide and PM<sub>10</sub> the Ultra Low Emission Zone (ULEZ) was introduced. The first stage of the implementation was Central London, followed by a larger area stretching to the North Circular Road in North London. The latest implementation covers the whole of Greater London and was expanded on August 29<sup>th</sup> 2023.
- 3.7 The ULEZ covers all vehicles and sets limits for emissions from petrol and diesel vehicles. By settling emissions limits the number of highly polluting vehicles will be reduced; vehicles which do not meet the ULEZ emissions criteria can pay a daily charge of £12.50 to enter the zone.

## Enfield Council's Monitoring Stations

- 3.8 The Council has four real-time air quality monitoring sites, all of which measure nitrogen dioxide and one of the sites also monitors PM<sub>10</sub>.
- 3.9 The location of the monitoring stations can be seen in Figure 1 below.

Figure 1.



- 3.10 The monitoring sites shown on the Figure above are a mixture of roadside and background sites. ENF5 is located at Bowes Primary approximately 3 metres from the edge of the carriageway of the A406. ENF4 is on Derby Road, N18, within 100 metres of the A406 and next to Conduit Lane. Both ENF1 and ENF7 are background sites away from busy roads.
- 3.11 Pollution concentrations are affected by several factors including the number of vehicles travelling along a road, the types of vehicles and the level of emissions from each vehicle. Weather is an important factor in concentrations in air.
- 3.12 Wet weather reduces particulates in air, effectively washing them out, while dry still conditions, lead to higher particle concentrations as they are not blown or washed away and the particulates on the road are continually resuspended. Nitrogen dioxide is not emitted directly from vehicle exhausts (except in the case of buses). Nitrogen oxides are emitted from exhausts and in the presence of sunlight and ozone are converted into nitrogen dioxide. The level of sunlight affects this reaction.

- 3.13 Due to the various factors affecting pollutant concentrations it is necessary to look at long-term trends to determine whether concentrations are reducing. Unless there have been specific incidents month by month data may not be representative of a change in concentrations. The Journeys & Places programme are proposing some additional longer-term monitoring as part of their programme strategic monitoring to develop the longer-term assessment of walking and cycling and Quieter Neighbourhood projects. More detail on this is at Appendix A.

### Monitoring data

- 3.14 The following data has been taken from the Council's air quality monitoring stations. Data has been supplied for the period January – August 2023 and following implementation of the ULEZ, September – December 2023.

Table 1. Pollution data 1<sup>st</sup> January 2023 – 28<sup>th</sup> August 2023

Site Code	Site Name	NO <sub>2</sub> ug/m <sup>3</sup>	PM <sub>10</sub> ug/m <sup>3</sup>
ENF1	John Jackson Library	15.4	N/A
ENF4	Derby Road	24.4	N/A
ENF5	Bowes Primary	23.6	12.9
ENF7	Prince of Wales School	14.9	N/A

Table 2. Pollution data 29<sup>th</sup> August – 31<sup>st</sup> January 2024.

Site Code	Site Name	NO <sub>2</sub> ug/m <sup>3</sup>	PM <sub>10</sub> ug/m <sup>3</sup>
ENF1	John Jackson Library	18.3	N/A
ENF4	Derby Road	28.2	N/A
ENF5	Bowes Primary	25.8	9.7
ENF7	Prince of Wales School	16.5	N/A

- 3.15 The data for all sites in Table 1 (pre-ULEZ expansion) has slightly lower concentrations for nitrogen dioxide than in Table 2 (post-ULEZ expansion) and a slightly higher concentration for PM<sub>10</sub>. There may be several explanations for the slight differences in the concentrations seen between tables 1 and 2.
- 3.16 As mentioned earlier in paragraph 3.13, comparisons of concentrations must to be over a longer period of time due to short-term variations of measured levels over a few months. Currently there is not enough measured data to provide any meaningful analysis of the impact of the ULEZ on the Borough's air pollution concentrations.
- 3.17 The Mayor of London issued a report at the end of October entitled 'London-wide Ultra Low Emission Zone First Month Report'. The document provides data for the change to the vehicle fleet in the ULEZ, comparing June 2023 with September 2023.

3.18 The report for the first month of the ULEZ does not cover the impacts of the scheme on air pollutant concentrations, stating that ‘a longer period is needed to accurately measure this.’

3.19 The key findings put forward in the Mayor’s report are as follows:

- The compliance rate for vehicles subject to the ULEZ standards during the first month was 95.3%, up from 91.6% in June 2023
- Compliance rates for cars and vans have increased; 96.4% of cars and 86.2% of vans seen driving in the London-wide ULEZ met the standards in the first month, up from 93% and 80.2% in June 2023
- In the expanded outer London area, vehicle compliance was 95.2% in the first month compared with 90.9% in June 2023
- Car compliance in the expanded outer London area is 96.4%, up from 92.4% in June 2023

3.20 Positive changes to the vehicle fleet are likely to give rise to reductions in emissions and pollutant concentrations, the extent of this is currently unknown and will be clearer when the Mayor of London issues future reports that discuss this issue.

## **4. Relevance to Council Plans and Strategies**

4.1 The ULEZ is likely to lead to reduced emissions of nitrogen dioxide and PM<sub>10</sub> from road traffic, this is relevant to the Council’s Air Quality Action Plan, which sets-out how the Council will work towards improving air quality in the borough.

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### **Appendices**

#### **Appendix 1: Journeys & Places Monitoring of Transport Air Pollution**

#### **Background Papers**

*London-wide Ultra Low Emissions Zone First Month Report*  
[London-wide Ultra Low Emission Zone First Month Report | London City Hall](#)

**Departmental reference number, if relevant:**

## Appendix 1: Journeys & Places Monitoring of Transport Air Pollution

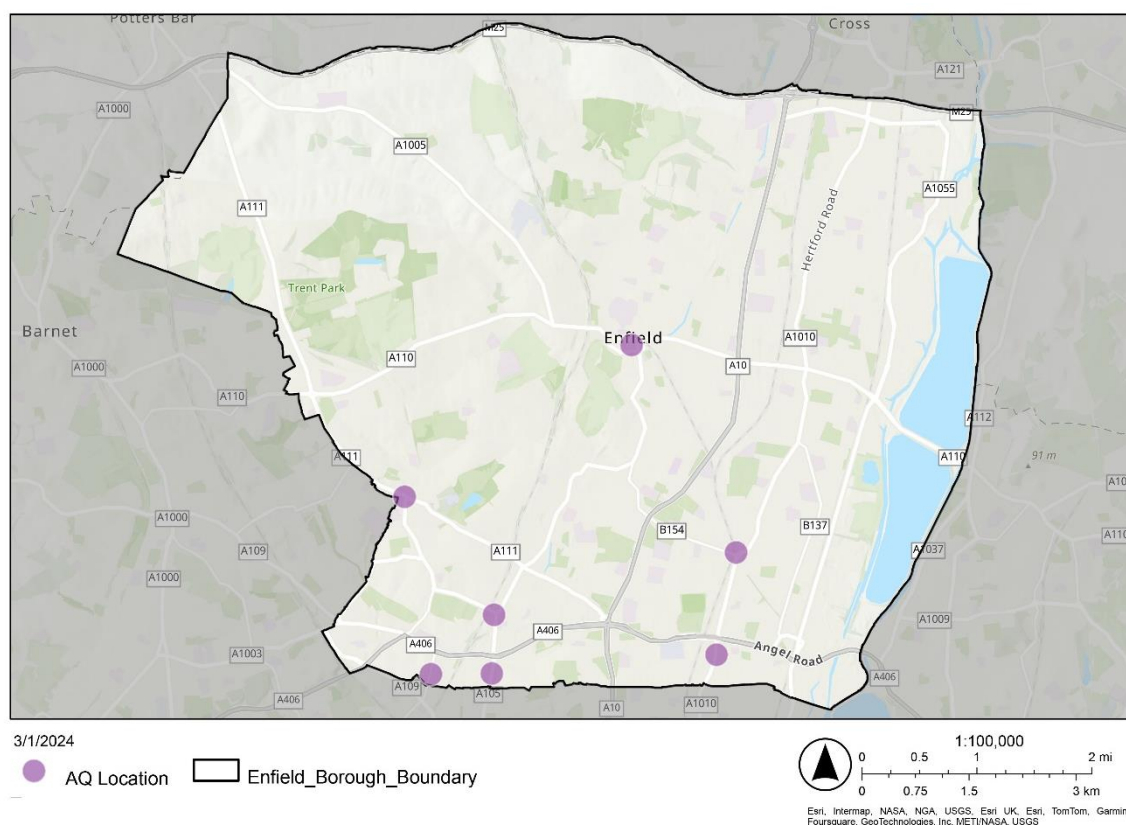
### Introduction

The Journeys and Places team has obtained grant funding from TfL to implement and monitor transport related air quality on both a strategic basis and, where necessary, on a project related basis as well.

The monitoring will be undertaken by Smart Hub using Vortex sensors. The cameras monitor air quality 24/7 and provide an excellent data insight that assist with decision making.

### Strategic Monitoring

The strategic monitoring is a set of 7 permanent locations across the Borough. The sensors are location next to traffic monitoring sensors to enable data correlations between traffic and air quality. The locations are shown in the map below. Should additional funding become available then the intention is to expand the network.



### Project Monitoring

Where schemes are intended to reduce traffic and/or traffic related air pollution, temporary sensors can be used to establish a baseline prior to scheme implementation and post-implementation monitoring to assess the impact of schemes. Some projects have also used AQ modelling using traffic data to make assessments on any AQ impacts of the projects.

The results of the monitoring can be useful when responding to complaints or queries from the public and stakeholders by providing real data as evidence of the current AQ position. The increased provision of AQ monitoring locations, related to the Journeys & Places programme, will help provide further insights that can be shared with the community.