London Borough of Hillingdon
Air Quality Action Plan

2025 - 2030

Pre Consultation Draft

Process

Pre Consultation Review

- Undertake pre-consultation review with GLA

Steering Group Review

- Undertake review with steering group

Consultation

- Finalise version for public consultation (minimum of 6 weeks)

Adoption and Implementation

- Publish final version for adoption
- Complete implementation plan
- Undertake Annual Status Review and monitoring

Our Vision for Clean Air

Everybody is entitled to breathe clean air. There are no safe levels of air pollution; long term exposure to even low levels of air pollution can impact our health. Therefore, improving air quality is a priority. Our vision is to strive to offer clean air to everyone who live, work, study or visit the Borough. The core aims we have set to helps us to achieve this vision are:

1) To reduce pollutant emissions within our Borough to the maximum possible extent, with all emissions being mitigated
2) To reduce pollution concentrations, striving to achieve the World Health organization (WHO) guidelines in the shortest time possible
3) Remove inequalities in exposure to poor air quality and protect the vulnerable
4) Continue to use the planning system to ensure:
    a. new development does not contribute additional air pollution and
    b. new development in our Focus Areas contribute improvements in air quality
5) Raise awareness on the health impacts and preventive measures to be taken to safeguard health
6) Influence change and lead by example

Progress

This AQAP has been produced as part of our duty to London Local Air Quality Management and replaces the previous action plan which ran from 2019 to 2024. Highlights of successful projects delivered through the past action plan include

Limiting impact of new development using planning policies

- Air Quality Neutral applied to all developments as minimum.
- Air Quality Positive applied for major developments and for all development within catchment areas of Air Quality Focus Areas
- Applied a zero emissions approach towards developments when located in or affecting sensitive areas such as Air Quality Focus Areas, near vulnerable receptors such as schools, care homes, hospitals, and densely populated residential areas.
- Required total emission mitigation within catchment areas of Focus Areas. Pollution damage costs were used consistently as the basis for s106 contributions where mitigation offered was considered not sufficient and or appropriate.
- ensured adequate, appropriate, and well-located green space and infrastructure in new developments.
- ensured emissions from construction were minimized with enforcement of Non-Road Mobile Machinery (NRMM) air quality policies. 85 construction site audits undertaken.
- Level of mitigation ascertained for total emissions from diesel emergency backup generators attached to development such as data centres using Defra's damage costs approach to gain a S106 obligation when mitigation provided by the developer was insufficient to mitigate total emissions.
- Promoted energy efficiency retrofitting projects in workplaces and homes. A total of 1207 boilers were replaced.

Promoting air pollution forecasting and route planner tools

- 209 active subscribers to airTEXT.
- All schools now have Walking Maps at school entrances and new footpaths are put in place where possible to encourage active travel.

Tackling unnecessary idling by taxis, coaches and other vehicles

- introduced a Targeted Problem-Solving Group working with partners including the Police, Fire Brigade, TfL, Housing associations and a range of Council departments. There is a rolling programme of events at community hubs utilising supermarkets and community halls to engage with residents and local businesses
- Information on air quality such as no idling and Airtext has been included in the programme for dissemination at these events.
- 1985 drivers engaged as part of idling events and ongoing no-idling enforcement.
- All schools were alerted to the No-Idling webinars.

Installation of on-street electric vehicle (EV) charge points throughout Hillingdon

- The Council has an EV strategy in place with short-, medium- and long-term recommendations to increase EV awareness throughout the borough and increase the provision of infrastructure.
- 350 electric vehicle charge points installed between 2019 and 2024.
- Commitments made to increase the infrastructure further

Provision of infrastructure to support walking and cycling

- Development of the Grand Union Canal Quietways link between Hayes and Cranford Park. This will give residents in Hayes a pedestrian/cycle route choice to access Cranford Park.
- Cycle lanes on Park Road, Uxbridge and High Street, Ickenham / Long Lane down to Hillingdon Station completed.
- Consolidated the disjointed cycle provision on the A4020 Uxbrigde Road
- Cycling parking provision at Deansfield Primary School and Holy Trinity Primary School.
- Upgrade to footpaths in key locations.

Targeted implementation of green infrastructure

- A total of 35,200 trees were planted across Hillingdon between 2019 and 2024
- The protection of public exposure at public recreational spaces was implemented through appropriate greening.
- Eleven amenity areas and children's playgrounds in close proximity to busy roads have been approved for additional green infrastructure.

Working with schools to raise awareness and reduce air pollution

- The first school street in Hillingdon is now up and running, with a further five schools currently under implementation
- Up to 2024, there were 21 Gold, 5 Silver and 9 Bronze accredited schools in the borough with an increasing number interested specifically in air quality issues
- The Green Barriers at Schools Project improved the school environment at 49 schools.
- 40 schools have been funded for air quality awareness education workshops.
- A school superzone fund has been received for Minet school with the key objective of improving air quality.

Our Focus Areas

- Studies developed to improve air quality in the Hillingdon Air Quality Focus Areas to identify short, medium, long-term solutions for measures to implement to improve air quality. All development affecting Focus Areas have been required to meet zero emissions.

1. Introduction

As a council we are committed to improving air quality for our communities. This Air Quality Action Plan (AQAP) has been produced to deliver this commitment in full alignment with our statutory duties.

This document sets the actions that the London Borough of Hillingdon (LBH) will take between 2025 and 2030 to improve air quality by reducing pollutant emissions and exposure of our populations to pollution.

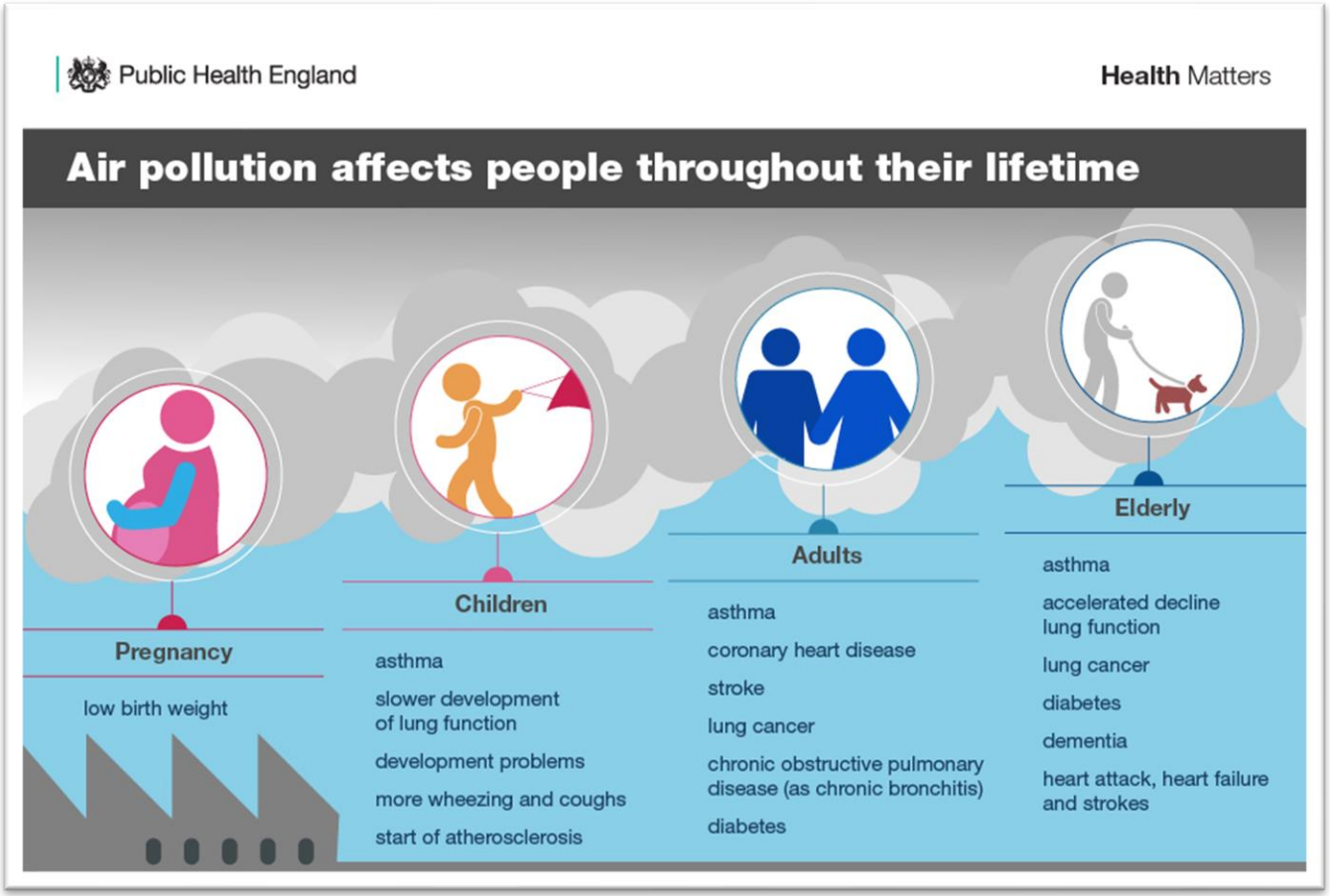
The selected actions consider our specific local issues and work already underway which is producing fruitful results and are expected to positively impact on the health and quality of life of our residents and those employed in, studying, or visiting the Borough.

This Air Quality Action Plan (AQAP) is a statutory document and has been produced as part of our duty to London Local Air Quality Management (LLAQM). It has been developed in recognition of the legal requirement on the local authority to work towards air quality objectives under Part IV of the Environment Act 1995 and the suite of regulations made under the Environment Act 2021

The need for an Action Plan

Air pollution is defined by any chemical or composition alteration of pure air. Air pollution consists of chemicals or particles in the air that can harm the health of humans as well as impact the balance of our ecosystems and the conditions of our urban environment.

The main pollutants of concern within the London Borough of Hillingdon are nitrogen dioxide (NO2) and particulate matter (PM). There is currently no safe level for $PM_{2.5}$ or NO2. In recognition of this, the World Health Organisation (WHO) recently lowered its guideline limits for $PM_{2.5}$ to 5 µg/m3 and NO2 to 10 µg/m3. Since we do not yet have evidence of what a safe level of exposure to NO2 and PM is, we must continue to reduce concentrations as much as possible to protect our communities.



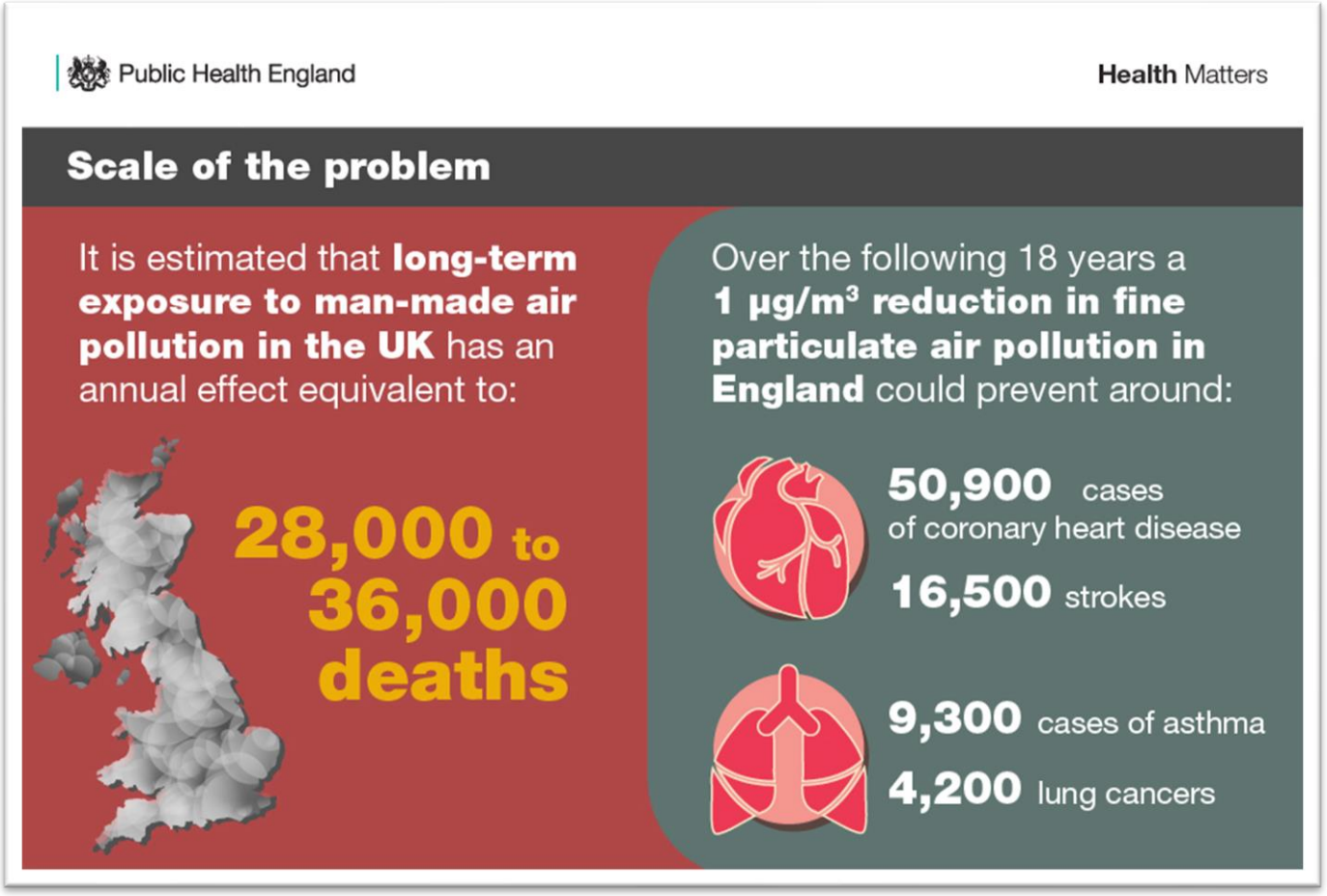
Both short and long-term exposure to air pollution can lead to a wide range of harmful effects which come about at every stage of life, from a foetus' first weeks in the womb all the way through to old age.

However, some groups are more vulnerable, and these include, children, the elderly, and people with pre-existing health conditions.

Air pollution is the largest environmental threat to public health in the UK. Exposure to air pollution is estimated to cause 36,000 premature deaths each year.

Pollution is also disproportionately impacting in areas with higher degrees of depravation.

It is therefore important that we prioritise action to reduce air pollution and minimise exposure. We aim to achieve the lowest pollution concentrations possible in the shortest period.



Types of Air Pollution

There are many substances that can impact air quality. The Government has committed to reducing emissions from the 5 most prevalent and damaging pollutants.

Particulate matter

(PM or $PM_{2.5}$ or ultrafines)

Particulate matter is everything in the air that isn't gas. This includes natural sources like pollen, sea spray and desert dust. It also includes human made sources like smoke and dust from exhausts, brakes and tyres.

PM can travel large distances with up to 33% of $PM_{2.5}$ originating from non-UK sources and around 15% from natural sources. PM is classified according to size. $PM_{2.5}$ is less than $_{2.5}$um (micrometers) across, and is the main type of PM which is regulated.

PM can get into the lungs and blood and be transported around the body, lodging in the heart, brain and other organs.

PM emissions have reduced significantly in recent decades, but have recently stabilised. This is partly due to an increase in wood burning in homes.

Sources of PM

- 38% from burning wood and coal in domestic open fires and solid fuel stoves
- 12% from road transport
- 13% from solvent use and industrial processes
- 16% from industrial combustion (non-domestic burning)
- 19% from industrial combustion
- 17% from other transport, such as rail and shipping

Nitrogen oxide (NOx)

Nitrogen oxides are a group of gases that are mainly created from burning fossil fuels.

When the gas reacts with others in the air, it can create nitrogen dioxide (NO2). It also creates ozone (O3).

The UK isn't meeting the current limits of nitrogen dioxide concentration. We have published an air quality plan for nitrogen dioxide, setting out how we plan to meet these limits in the shortest possible time.

Sources of nitrogen oxide

- 35% from road transport
- 22% from energy generation

Ammonia (NH3)

Ammonia is a gas that is released into the atmosphere, mostly from agricultural sources like slurry or other rotting farm waste and fertiliser.

We must reduce emissions of ammonia (from the 2005 baseline) by 8% by 2020 and by 16% by 2030.

Sources of ammonia

- 88% from farming practices such as storing and spreading manures, slurries, and spreading of inorganic fertilisers
- 4% from the waste sector
- 8% from a wide range of sources such as vehicles, human waste and industry

Sulphur dioxide (SO2)

Sulphur dioxide is an acidic gas which can combine with water vapour in the atmosphere to produce acid rain. Sulphur dioxide is an irritant that can affect airways, particularly in those who have asthma.

We currently meet the legal limits for daily and hourly levels of sulphur dioxide in ambient air. We aim to reduce emissions of sulphur dioxide (from 2005 baseline) by 59% by 2020 and 88% by 2030.

Sources of sulphur dioxide

- 37% from energy generation
- 22% from industrial combustion
- 22% from domestic burning

Non-methane volatile organic compounds (NMVOCS)

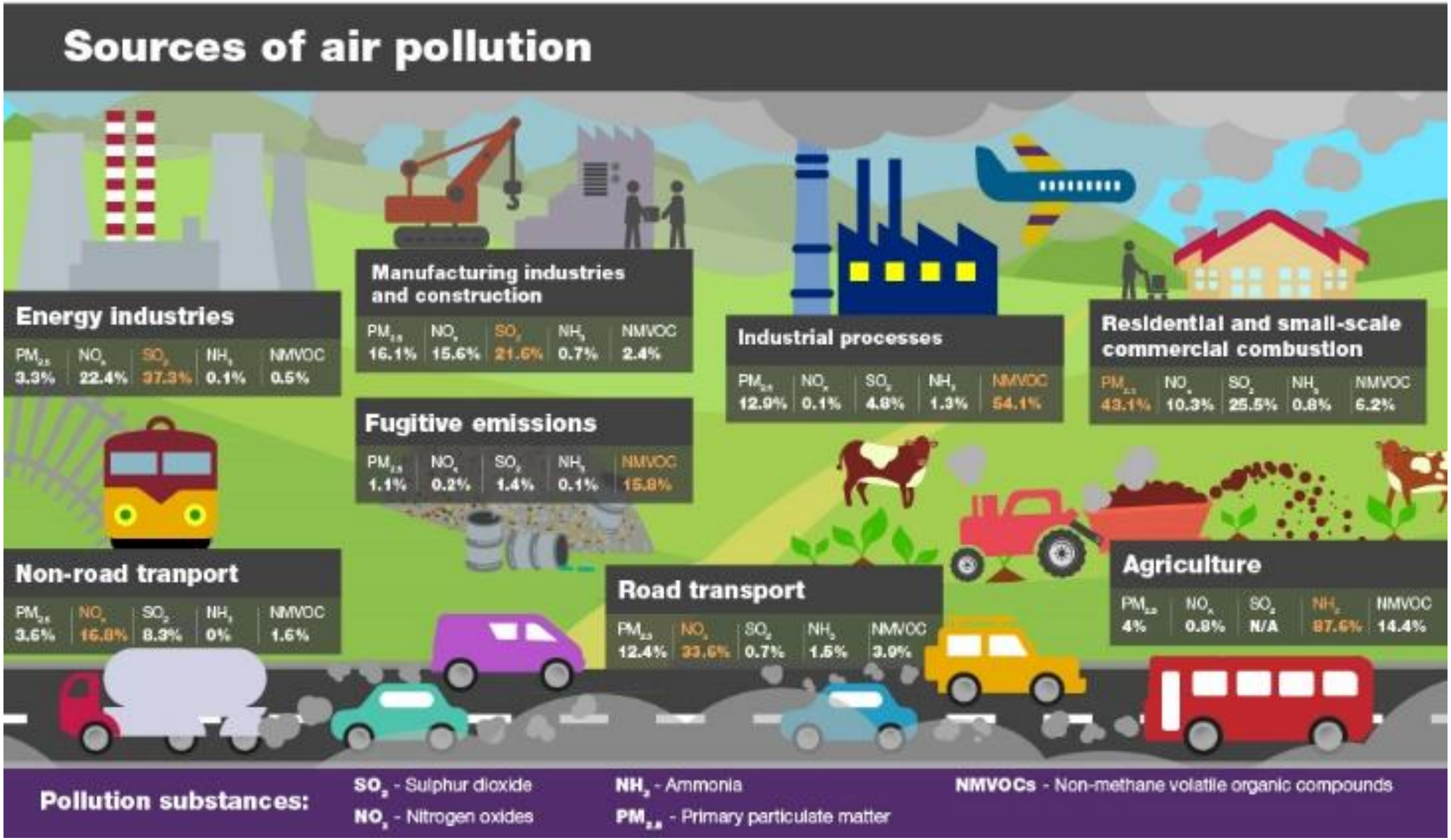
Non-methane volatile organic compounds (NMVOCs) are organic molecules, which differ widely in their chemical composition but can display similar behaviour in the atmosphere. These include vapours from every day products we use at work or home like petrol, solvents, air fresheners, cleaning products and perfumes.

We must reduce emissions of NMVOCS (from 2005 baseline) by 32% by 2020 and 39% by 2030.

Sources of NMVOCS

- 54% from industrial emissions
- 14% from agriculture
- 8% from domestic and industrial combustion
- 5% from transport

Sources of air pollution



The Costs of Air Pollution

Not only does air pollution harm our health, it also harms our economy. It is estimated that the health problems resulting from air pollution cost the UK up to £20 billion per year.

It also significantly impacts the NHS. In 2017 it was estimated that in England the cost to the NHS and social care systems from air pollution was £157 million.

Helpfully, the cost of air pollution can be relatively easily monetised and this is reflected in our work on new development.

We can calculate the costs to society of annual pollutant emissions using Defra's damage cost approach over the lifecycle of development.

We have pioneered this approach since 2019 when considering new development and secured income that allows us to deliver air quality actions for our communities.

The Policy Context

This AQAP is placed within a framework of international, national, regional, and local policies and guidelines. This section outlines the context that the AQAP was developed within.

International context

In July 2022, the United Nations (UN) General Assembly declared access to a clean and healthy environment a human right – this includes clean air. Although this is not legally binding, it formalises the right to breathe clean air and is an important step towards protecting human health as well as the health of the planet.

The WHO estimates that air pollution (indoor and outdoor combined) is associated with 7 million premature deaths annually. The WHO assesses the health effects of air pollution and provides guidelines for pollution levels in the atmosphere to prevent risk to human health.

The most recent update to the WHO guidelines was September 2021. Although these thresholds are not legally binding they provide information on the levels of pollution in the air which are considered to be harmful to human health, underpinned by robust research and a wide body of scientific evidence.

UK Research and Innovation

Clean air underpins everything we need and value:

- *our physical health*
- *our mental wellbeing*
- *our quality of life*

the environment we depend on.

Poor air quality, then, presents serious risks.

In the UK it is the fourth biggest danger to public health, contributing to over 40,000 deaths and carrying an estimated annual cost of ***£20 billion*** *to health services and businesses.*

www.ukri.org

National context

The UK has a long history of air pollution policy, with the *Clean Air Act 1956* being introduced in response to the 1952 smog in London, extended in 1968 and then consolidated in 1993. *The Environment Act 1995* as amended by the *Environment Act 2021* requires the Government to produce an Air Quality Strategy. The *Clean Air Strategy 2019* sets out actions required across government and society to tackle air pollution in England.

The clean air chapter of the *Environmental Improvement Plan 2023* builds on and updates the 2019 Clean Air Strategy.

Additionally, the *2023 Air Quality Strategy: Framework for Local Authority Delivery* sets out the actions that Defra expects local authorities to take in support of the air quality targets.

Pollution levels are regulated by the *Air Quality Standards Regulations 2010*, meaning that there are legally binding limits for concentrations in outdoor air for major air pollutants that impact human health, including NO_2, PM_{10}, and $PM_{2.5}$. These limits are far less stringent than the WHO 2021 guideline thresholds.

Most recently, the *Environment Act 2021* included amendments to the *Clean Air Act 1993* as well as extending the Environment Act 1995. This requires the Government to set two new air quality targets. The air quality targets set in the *Environmental Targets (Fine Particulate Matter) (England) Regulations 2023* are:

- Annual Mean Concentration Target ('concentration target') - a maximum concentration of 10µg/m^3 to be met across England by 2040
- Population Exposure Reduction Target ('exposure target') - a 35% reduction in population exposure by 2040 (compared to a base year of 2018).

Additionally, interim targets have been set stating that by January 2028:

- An annual average of 12µg/m^3 for $PM_{2.5}$ is not exceeded at any monitoring station.
- Population exposure to $PM_{2.5}$ is at least 22% less than in 2018.

These are still above the WHO suggested thresholds reinforcing the context of 'no safe level of air pollution'.

More recently, the Clean Air (Human Rights) Bill aims to express the human right to clean air in UK law. The proposed legislation, Ella's law, aims to establish the right to breathe clean air and to require the Secretary of State to achieve and maintain clean air in England.

Ella's Law

Ella Roberta Adoo Kissi Debrah died on 15 February 2013 at the age of nine as a result of asthma contributed to by exposure to excessive air pollution in London. She was a bright, talented girl who loved sports, music and reading.

Ella was the first person in England to have air pollution named as a cause of death by a coroner. In his report, the coroner urged the government to take action to bring air quality up to minimum World Health Organization (WHO) standards.

Ella's Law is what people are calling the Clean Air (Human Rights) Bill, introduced to Parliament by Baroness Jenny Jones in May 2022. It would force the government to act to bring air quality in every community up to minimum WHO standards.

Regional context

Air Quality (England) (Amendment) Regulations 2002 and the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023, provide the statutory basis for the national air quality objectives.

These have been taken forward at the London level by the Mayor in the London Local Air Quality Management (LLAQM). The LLAQM system is a statutory process by which London local authorities monitor, assess and take action to improve local air quality.

The Environment Act 1995 (Part IV) requires local authorities in the UK to review air quality in their area and designate Air Quality Management Areas (AQMA) if improvements are necessary. Where an AQMA is designated, local authorities are also required to produce an air quality action plan describing what they will do to contribute to achieving air quality limit values in the local area.

To assist this and further support air quality improvement across London, the London Plan sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth taking into account air quality through policy SI1.

The London Environment Strategy 2018 sets out how the Mayor of London is tackling air pollution across London, including its aim to meet WHO health-based guidelines for $PM_{2.5}$ by 2030.

Local context

There are several council policies which link to air quality and that this AQAP aligns with. These include:

- London Borough of Hillingdon Cycling Strategy and Electric Vehicle Charging Strategy
- London Borough of Hillingdon Strategic Climate Action Plan
- Joint Health and Wellbeing Strategy 2022-2025: This strategy includes a theme of "Healthy Places" which incorporates the requirement to create a borough where residents have access to clean air.
- Council strategy 2022-2026 – This strategy outlines the council's vision of putting residents first, and its ambition statement for residents that Hillingdon is a safe, inclusive, more digital borough with a strong economy.
- London Borough of Hillingdon Local Plan - The Local Plan is a collection of planning documents that, alongside national planning policy and the Mayor's London Plan, sets out our strategy for future development in Hillingdon. It includes policies around housing, town centres, open space employment, community facilities, the built and natural environment and transport. This includes a specific policy on air pollution.

Council Strategy

Our ambition for residents

Hillingdon is a safe, inclusive, green, more digital borough with a strong economy.

- We want all our residents to:
- Live active and healthy lives
- Enjoy access to green spaces, leisure activities, culture and arts
- Live in a sustainable borough that is carbon neutral
- Be/feel safe from harm
- Live in good quality, affordable homes in connected communities
- Stay living independently for as long as they are able
- Achieve well in education, with opportunities for learning at all ages
- Have opportunities to earn an income that supports their families

2. Air quality in London Borough of Hillingdon

Background

Despite improvements in air quality over the last five years, air pollution continues to impact health and economy and impact inequalities. Poor air quality is still observed at sensitive locations within Hillingdon despite broad compliance of the legal thresholds.

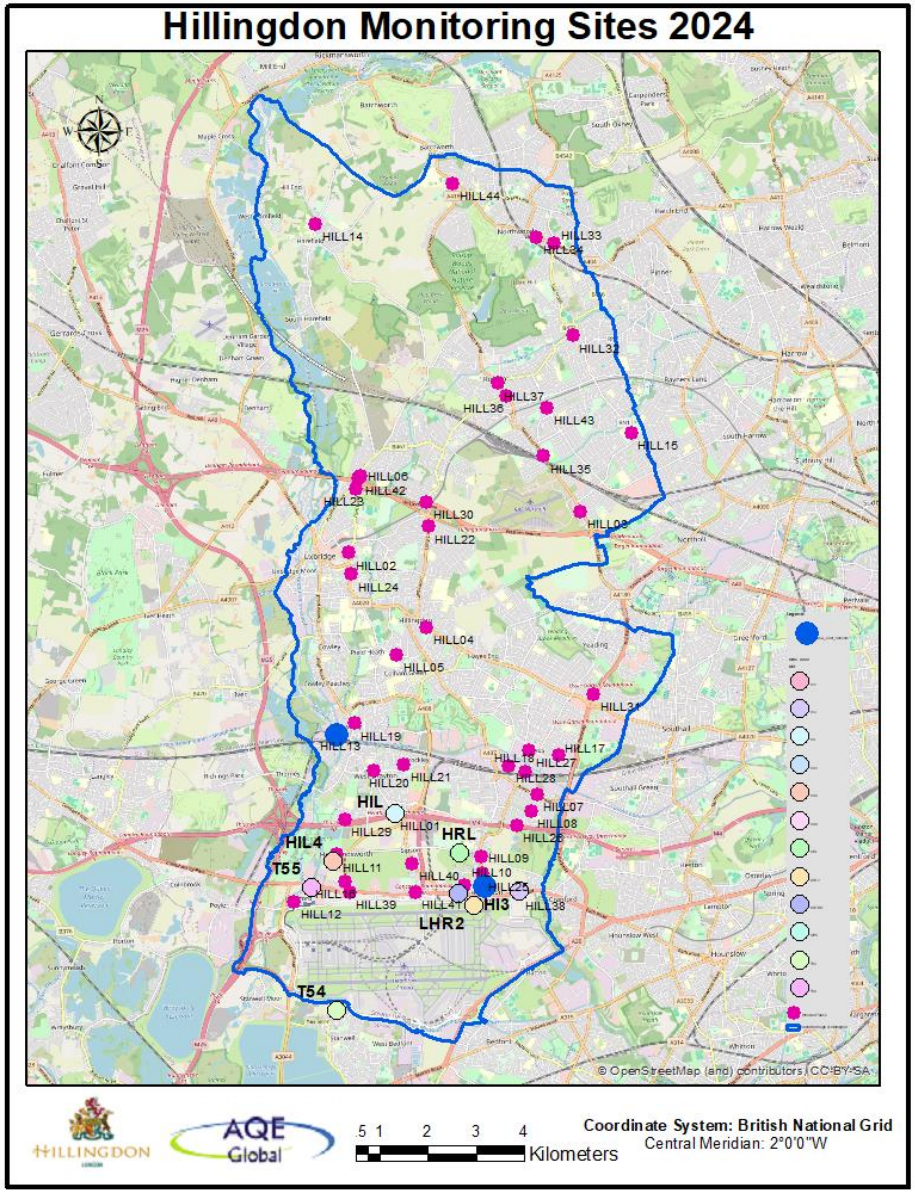
The London Borough of Hillingdon is required by law to monitor certain air pollutants through a framework called London Local Air Quality Management (LLAQM). Monitoring Air Pollution in the borough

Air quality monitoring is undertaken across the borough to understand how pollution levels are changing over time and to compare these with the thresholds set for protecting human health.

A review of the monitoring data collected between 2019 and 2023 shows a general decreasing trend in NO_2, PM_{10} and $PM_{2.5}$ concentrations across Hillingdon.

In that time though, limit values set through UK legislation have been made more stringent. Air quality is improving but pollution levels are still generally higher than those promoted through the WHO guidelines. Whilst these guidelines are not statutory, they do indicate that air quality improvements should remain a priority.

Pollutant	UK Air Quality Standards	World Health Organisation
NO_2	40 µg/m3 annual mean 200 µg/m3 1-hour mean	10 µg/m3 annual mean 15 µg/m3 1-hour mean37
$PM_{2.5}$	20 µg/m3 annual mean	5 µg/m3 annual mean 15 µg/m3 24-hour mean
PM_{10}	40 µg/m3 annual mean 50 µg/m3 24-hour mean	15 µg/m3 annual mean 45 µg/m3 24-hour mean



How does Hillingdon monitor air pollution?

We currently operate 12 automatic monitoring stations and a diffusion tube network comprising 44 monitoring locations as shown on the map to the left.

11 of the automatic stations monitor NO_2 and PM_{10}, 7 also measure $PM_{2.5}$. The 44 diffusion tube locations monitor NO_2 only. In addition, the borough also operates two low-cost sensors from the Breathe London project, monitoring NO_2 and $PM_{2.5}$. Monitoring data collected each year are published in Annual Status Reports (ASR) and made available on the Hillingdon council website.

Diffusion Tube example

Automatic Monitoring Station

Trends in pollution levels across Hillingdon

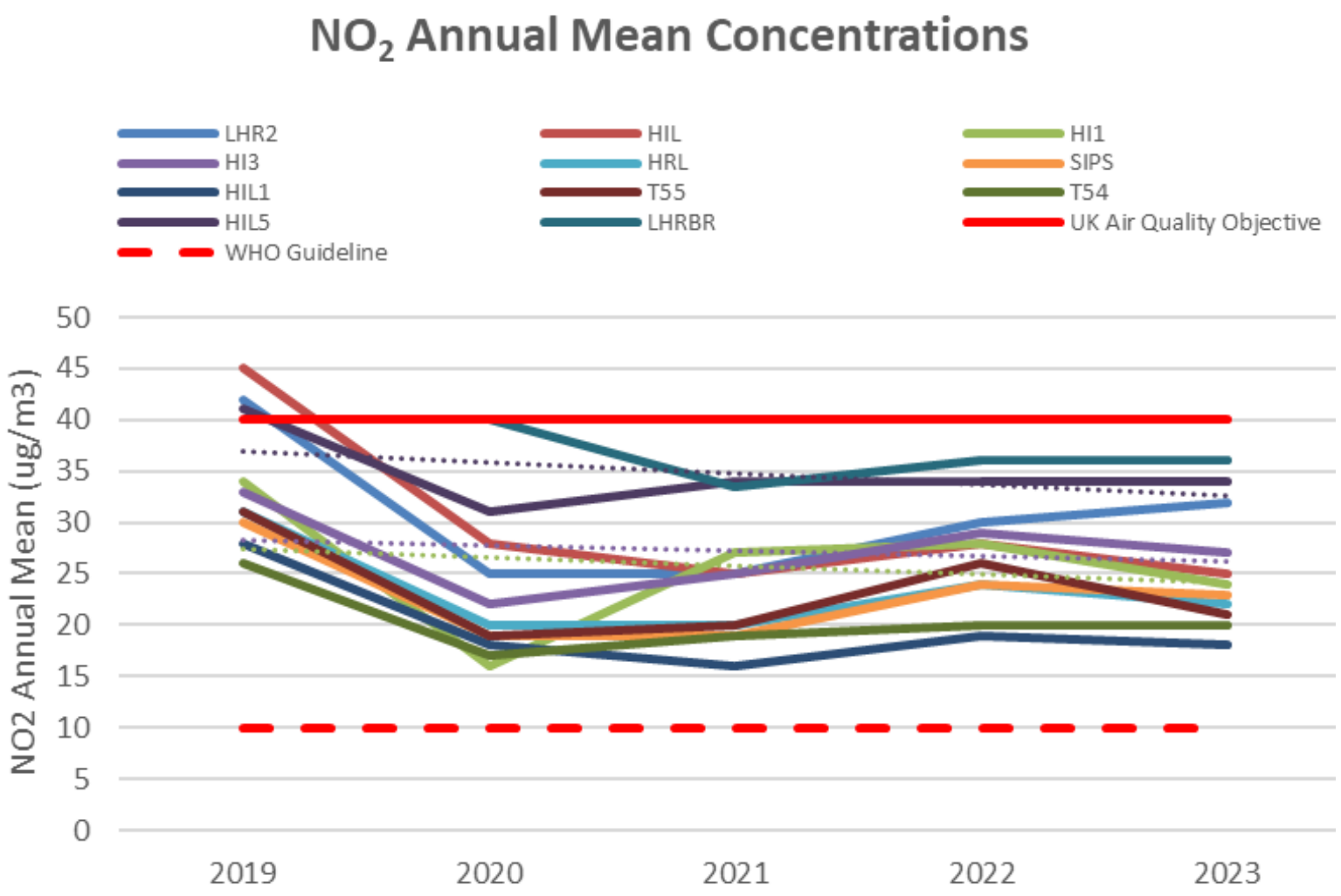
NO_2

Air quality in the borough has generally improved over the last air quality action plan timeframe, as demonstrated by the monitoring data.

The annual mean NO_2 concentrations recorded from the eleven automatic sites monitoring this pollutant within the borough can be seen in this figure.

Years 2020 and 2021 are considered Covid years and record significant downturn in activity, particularly linked to pollutants from transportation.

Importantly, as the Covid recovery commenced, levels of NO_2 has not returned to pre-Covid levels.



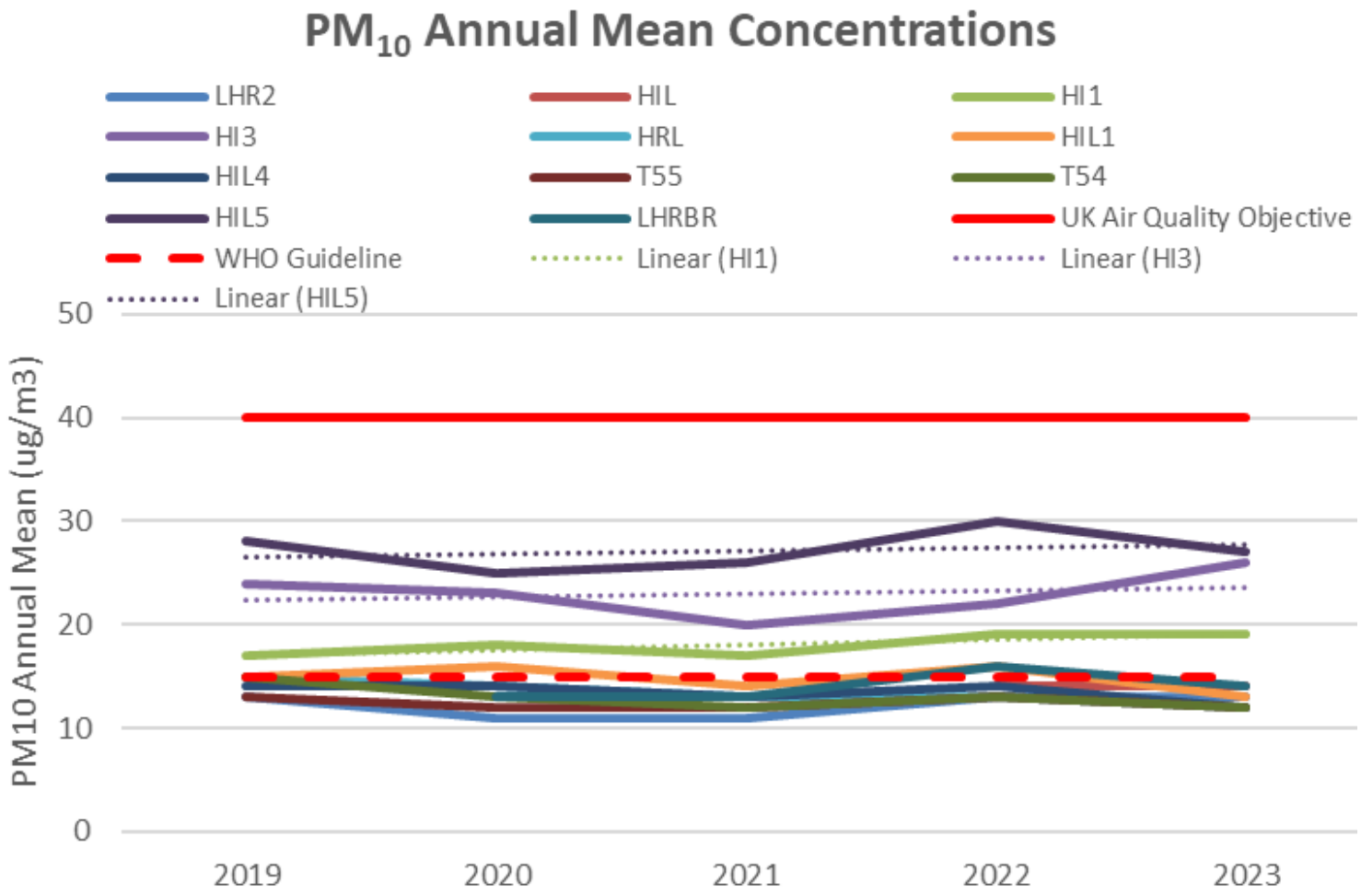
Trends in pollution levels across Hillingdon

PM_{10}

Annual Mean PM_{10} concentrations (ug/m^3) at continuous monitoring sites across the borough.

For PM_{10} there has been no observable trend, with a very slight increasing instance at HI1(Hillingdon Harmondsworth) and HI3 (Hillingdon Oxford Avenue) sites over the period 2019 – 2023

The levels are considerably below the UK air quality objective, but some monitors are reporting increases substantially above the WHO guidelines. This illustrates the need to keep prioritising action to minimise pollutants as much as feasible.



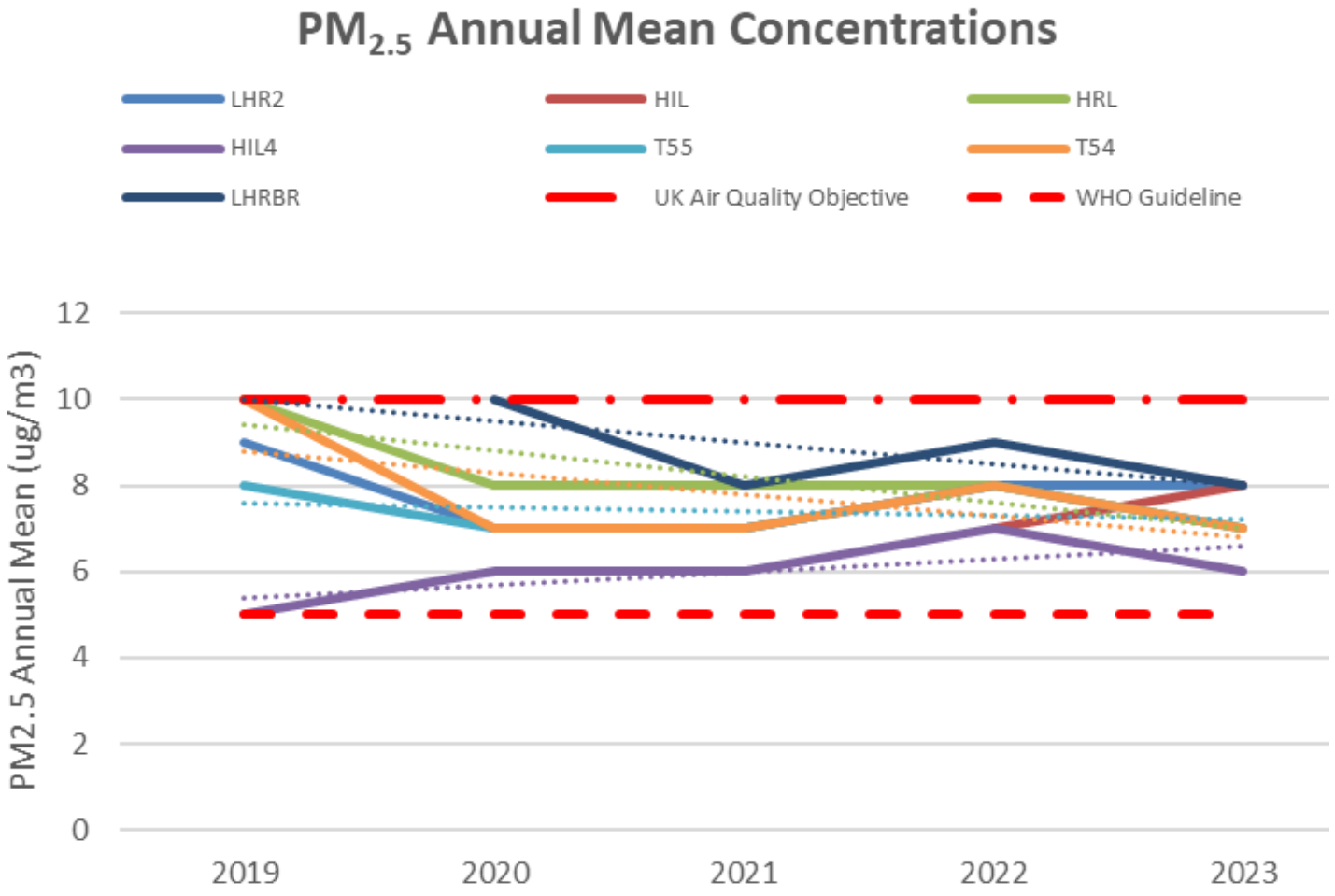
Trends in pollution levels across Hillingdon

$PM_{2.5}$

Annual Mean $PM_{2.5}$ concentrations (ug/m^3) at continuous monitoring sites across the borough.

$PM_{2.5}$ data shows an overall declining trend with the exception HIL4 (Hillingdon Harmondsworth) that presents a very slight increasing tendency over the period 2019 - 2023.

Monitoring data indicate that pollutant concentrations are generally decreasing over time and therefore air quality in Hillingdon is improving. However, whereas LBH is currently meeting the national objectives for PM_{10} and $PM_{2.5}$, the objectives for NO_2 are not yet being met at some locations within the borough (please see ASR 2023).



Conclusion on trends

It is acknowledged that there are no safe limit levels for pollutants and the national legal objectives are far higher than the WHO recommended guideline values. For this reason, in the London Environment Strategy the Mayor has committed to meeting the WHO health-based guideline limit (interim level 4, 10µg/m^3) for $PM_{2.5}$ across London by 2030.

A key area of focus for the council will be to strive towards meeting the most recent WHO guideline limits (as published in 2021) and assist in meeting the 2030 target.

Notwithstanding that, air quality in the borough has generally improved over the last air quality action plan timeframe, as demonstrated by the monitoring data. This is positive and the trend in air pollution is generally downwards although the principle aim of the action plan is to increase this rate of the decline.

Ultrafine PM

Ultrafine particles ($PM_{0.1}$) ('UFP') represent an area of emerging concern with relatively less scientifically understanding as to their impacts. UFPs are not widely monitored but recent research indicates they pose a significant threat to health:

> *Ultrafine particles ($PM_{0.1}$), which are present in the air in large numbers, pose a health risk. They generally enter the body through the lungs but translocate to essentially all organs. Compared to fine particles ($PM_{2.5}$), they cause more pulmonary inflammation and are retained longer in the lung. implications.*
>
> *(source: https://www.nature.com/articles/s12276-020-0403-3)*

There is no requirement for Local Authorities to measure or monitor UFP in the UK. The EU has only recently adopted monitoring requirements for UFP and in doing so recognize the importance of understanding this pollutant.

A particular concern relates to aviation with a recent study at Charles De Gaulle, Paris, highlighting the links with aviation:

> *52 million people - more than 10% of Europe's total population - live within a 20km radius from the 32 busiest airports in Europe and are particularly exposed to ultrafine particles from aviation, new research by CE Delft and commissioned by T&E finds. In Paris, one of the cities included in the study, 8 million people are affected by its two main airports Charles de Gaulle and Orly. The exposure to ultrafine particles can be linked to the development of serious and long-term health conditions, including respiratory problems, cardiovascular effects and pregnancy issues.*
>
> *(Source: Ultrafine particles from planes put 52 million Europeans at... | T&E)*

The presence of Heathrow Airport in the south of the borough gives rise to significant additional concerns relating to UFPs and consequently, we need to improve our monitoring in and around the Heathrow Villages ward to support the existing monitoring framework and to ensure that we are putting the health of residents first.

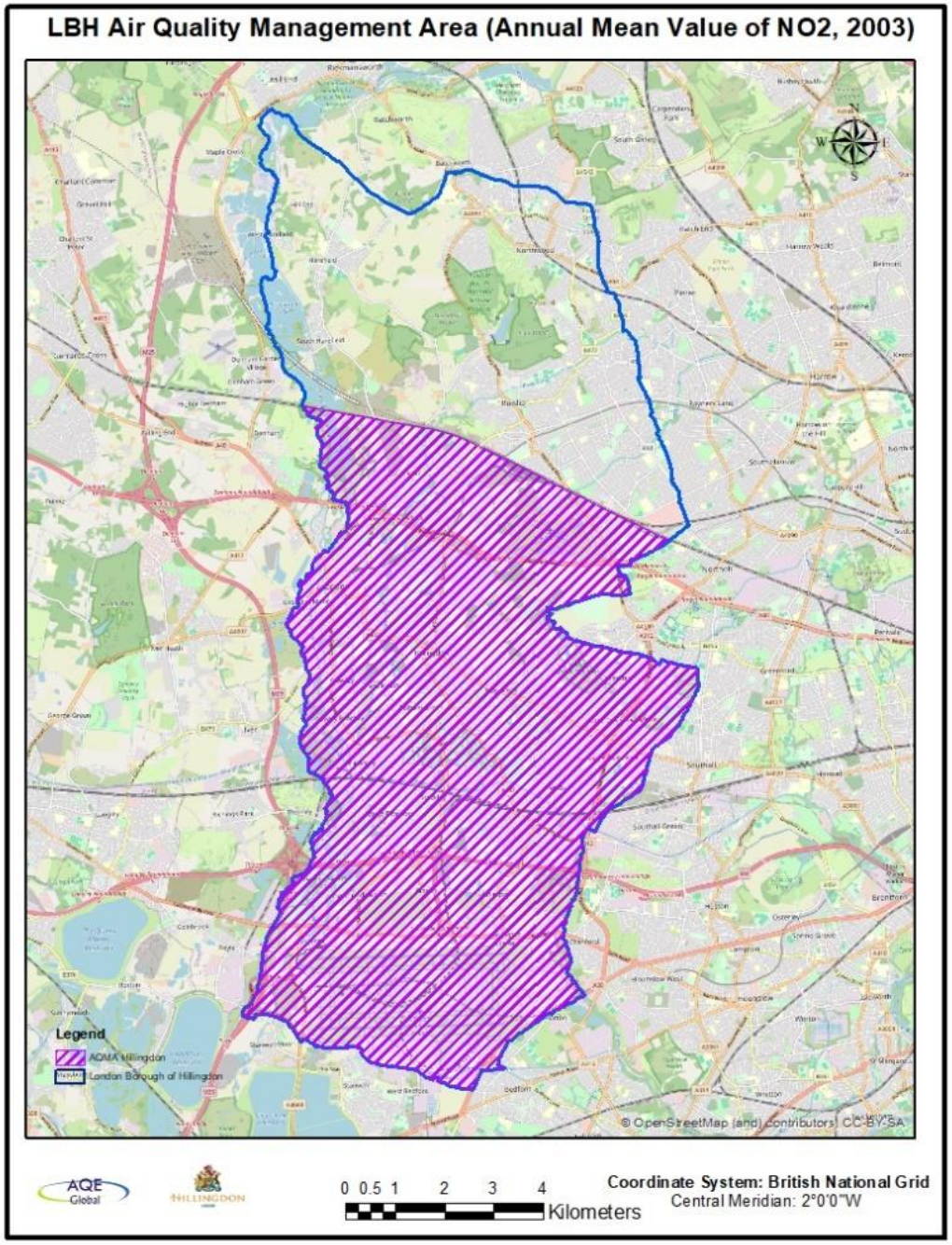
3. Hillingdon Air Quality Management Area

In 2003, we declared an Air Quality Management Area (AQMA) within the borough. The AQMA was declared due to exceedance of the NO_2 annual mean objective (40µg/m^3, the UK Annual Mean Limit value for this pollutant) and covered all the borough south of the Chiltern-Marylebone railway line.

What is an 'Air Quality Management Area'?

An Air Quality Management Area (AQMA) is an area where the air quality objectives are not likely to be achieved and there is relevant public exposure to air pollution.

Areas that have been declared as an AQMA must have an action plan to detail measures to address the air pollution problem.



4. Air Quality Focus Areas

Our core aims commit us to focusing on tackling air pollution where communities are most exposed to poor air quality in order to both safeguard human health and eliminate health inequalities.

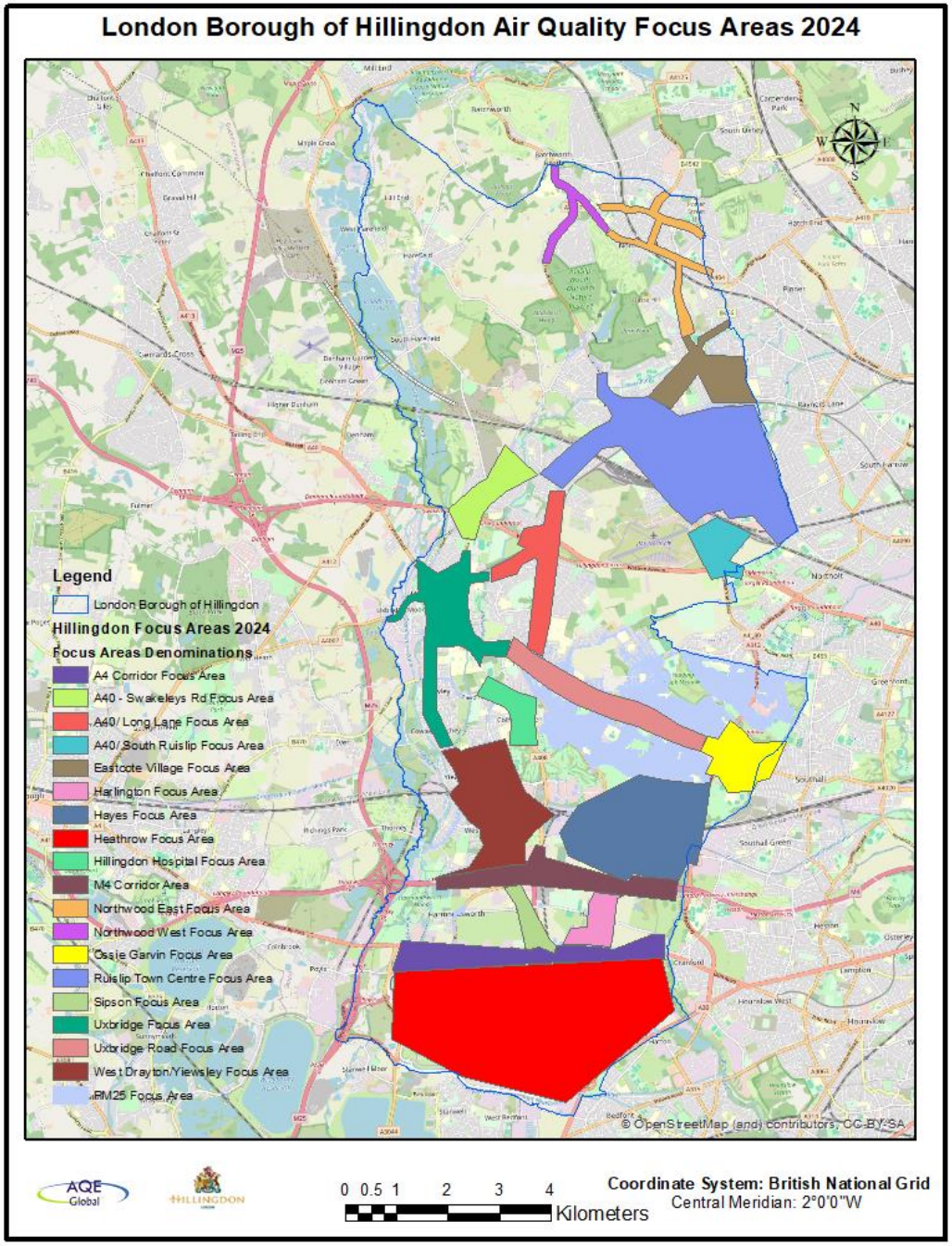
Identifying Air Quality Focus Areas (AQFAs) allows us to prioritise where to focus our attention to deliver these aims.

What is an Air Quality Focus Area?

GLA assessed Air Quality Focus Areas (AQFA) are locations that have previously exceeded EU annual mean limit value for nitrogen dioxide (NO2) but are also locations with high human exposure.

We have supplemented those AQFAs with additional locations in our borough that have also recorded high levels of $PM_{2.5}$ and PM_{10}. This approach preceded the regulatory framework around these two pollutants as recognised focusing on NO_2 was not sufficient.

Our AQFAs are not the only areas with poor air quality but they have been defined to identify areas where currently planned measures to reduce air pollution may not fully resolve poor air quality issues.



Understanding Air Quality Focus Areas

Analysis conducted on both monitored and modelled (LAEI, 2019) pollution levels for NO_2 and $PM_{2.5}$, alongside mapping of deprivation indices, and/or population exposure have led to a total of 19 AQFAs being identified.

It was also identified that there is a strong spatial correlation between the AQFAs and areas of high deprivation and/or potential growth.

AQFAs are also sensitive to any growth or changes in patterns as these are historically the more polluted areas in the borough. Whilst pollutant levels have reduced there are important points to note:

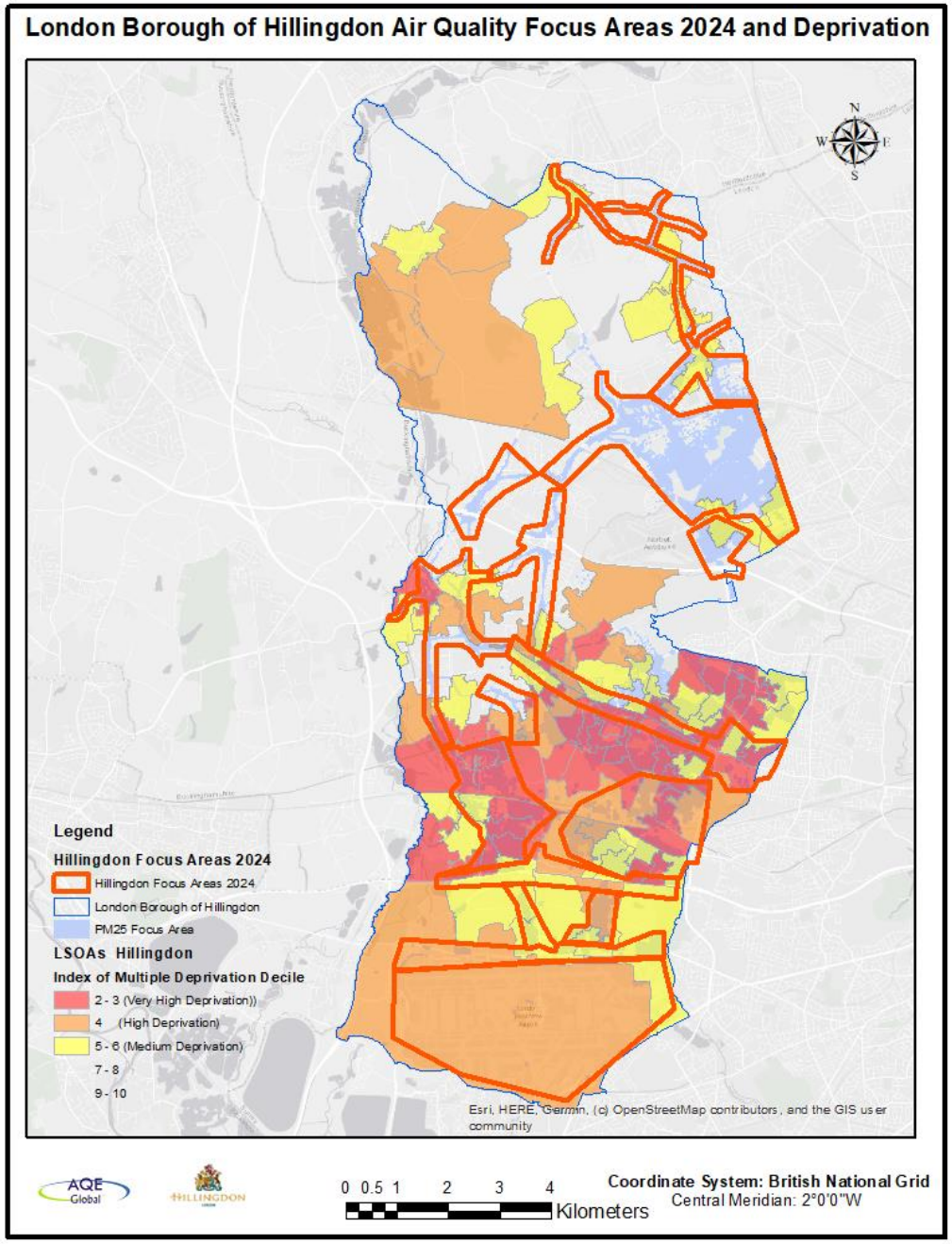
1. Its too early to determine trends in air quality following the Covid years. Patterns of behaviour are not completely back to pre-covid levels.

2. The AQFAs are all predicted to have air pollution levels that are higher than recommended by WHO throughout the plan period.

3. Air quality is measured at point sources and reported on an annual basis, i.e. averaged. Therefore the reporting does not account for localised hotspots or time sensitive events i.e. the school run.

We will undertake a review of the AQFAs in 2027/28 when more consistent data is available to determine which should still remain designated.

The following tables provide an outline of the reasons for designating the AQFAs.



ID	Name	Justification	Area (m^2)
1	A4 Corridor Focus Area	▪ Large number of receptors (1,501) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ High to moderate deprivation. ▪ Covers A4 Corridor residential areas	2,033,420
2	A40 - Swakeleys Rd Focus Area	▪ Large number of receptors (1,177) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Covers residential areas along A40 - Swakeleys Rd	1,059,740
3	A40/ Long Lane Focus Area	▪ Large number of receptors (2,481) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ High to moderate deprivation. ▪ Covers residential areas along A40/ Long Lane	1,578,840
4	A40/ South Ruislip Focus Area	▪ Large number of receptors (1,367) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Moderate deprivation. ▪ Covers residential areas along A40/ South Ruislip	897,099
5	Eastcote Village Focus Area	▪ Large number of receptors (2,983) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Moderate deprivation. ▪ Covers residential areas in Eastcote Village and around	1,489,020
6	Harlington Focus Area	▪ Large number of receptors (1,311) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ High to moderate deprivation. ▪ Covers residential areas in Harlington	652,925
7	Hayes Focus Area	▪ Extremely large number of receptors (8,209) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to moderate deprivation. ▪ Covers residential areas in Hayes	4,410,290

ID	Name	Justification	Area (m^2)
8	Heathrow Focus Area	▪ In spite of the small number of receptors air pollution is high ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ High to moderate deprivation.	10,987,800
9	Hillingdon Hospital Focus Area	▪ Large number of receptors (1,358) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to moderate deprivation. ▪ Covers residential areas in the Hillingdon Hospital area	742,288
10	M4 Corridor Area	▪ Large number of receptors (972) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to moderate deprivation. ▪ Covers residential areas along the M4 Corridor	1,884,900
11	Northwood East Focus Area	▪ Large number of receptors (2,232) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Moderate deprivation. ▪ Covers residential areas in Northwood East	1,001,510
12	Northwood West Focus Area	▪ Large number of receptors (799) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Moderate deprivation. ▪ Covers residential areas in Northwood West	483,700
13	Ossie Garvin Focus Area	▪ Large number of receptors (1,571) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to Moderate deprivation. ▪ Covers residential areas in Ossie Garvin area	1,330,190
14	Ruislip Town Centre Focus Area	▪ Extremely Large number of receptors (14,342) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Moderate deprivation. ▪ Covers residential areas in Ruislip Town Centre area	6,928,820

ID	Name	Justification	Area (m^2)
15	Sipson Focus Area	▪ Large number of receptors (466) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Moderate deprivation. ▪ Covers residential areas in the Sipson area	519,167
16	Uxbridge Focus Area	▪ Extremely Large number of receptors (7,076) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to Moderate deprivation. ▪ Covers residential areas in the Uxbridge area	2,441,060
17	Uxbridge Road Focus Area	▪ Extremely Large number of receptors (3,999) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to Moderate deprivation. ▪ Covers residential areas in the Uxbridge Road	2,033,420

ID	Name	Justification	Area (m^2)
		area	
18	West Drayton/Yiewsley Focus Area	▪ Extremely Large number of receptors (7,080) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to Moderate deprivation. ▪ Covers residential areas in the West Drayton/Yiewsley area	1,059,740
19	$PM_{2.5}$ Focus Area	▪ Extremely Large number of receptors (57,138) ▪ Designated due high levels of NO_2 and $PM_{2.5}$ ▪ Forecasted to remain above WHO levels in 2030 ▪ Extremely High to Moderate deprivation. ▪ Covers residential areas across the borough (please note that these may overlap with Focus Areas above)	18,972,000

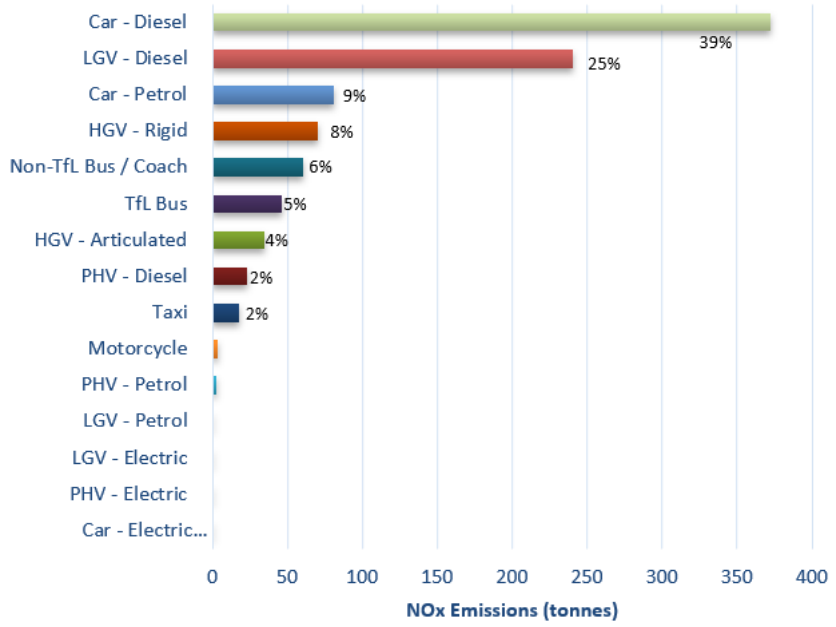
5. Sources of Pollution in the London Borough of Hillingdon

Pollution in the borough comes from a variety of sources. This includes pollution from sources outside of the borough, and, in the case of particulate matter, a significant proportion comes from outside London and beyond the UK.

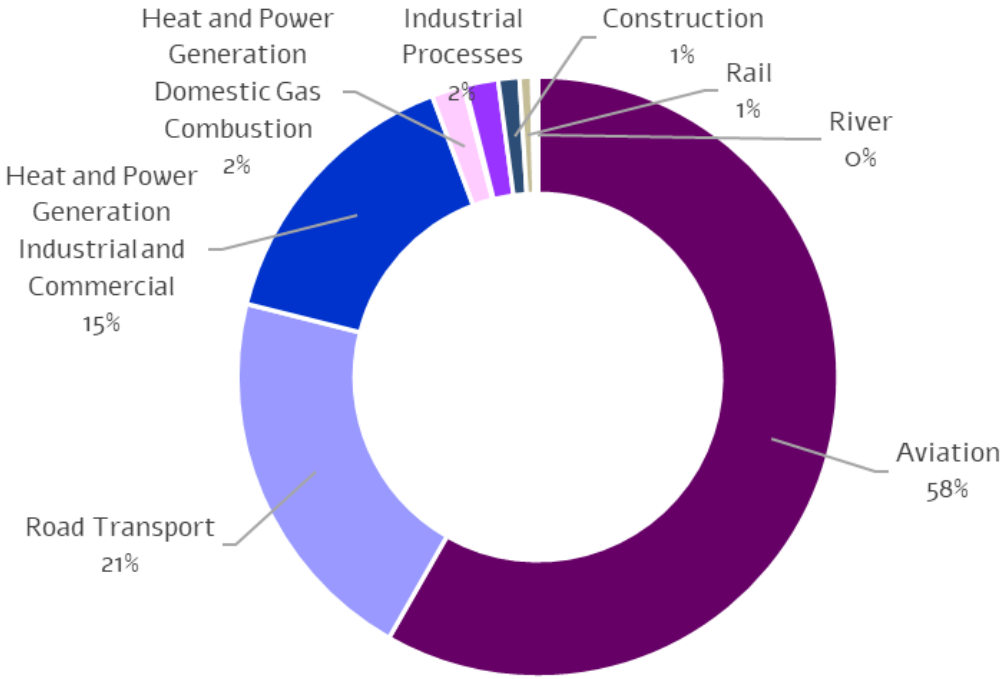
Of the pollution that originates within the borough, the main sources of NOx and $PM_{2.5}$ emissions are transport, and the main source of PM_{10} is construction.

Sources of NO_x in Hillingdon

Of the pollution that originates within the borough, the main sources of NOx emissions are aviation and road transport, followed by industrial/commercial heat/power. NOx emissions in Hillingdon by source are outlined in Figure 15 and the breakdown of NOx emissions by road transport type is shown in Figure 16. As shown, the top three road traffic sources are diesel cars (39%), diesel LGVs (25%) and petrol cars (9%).



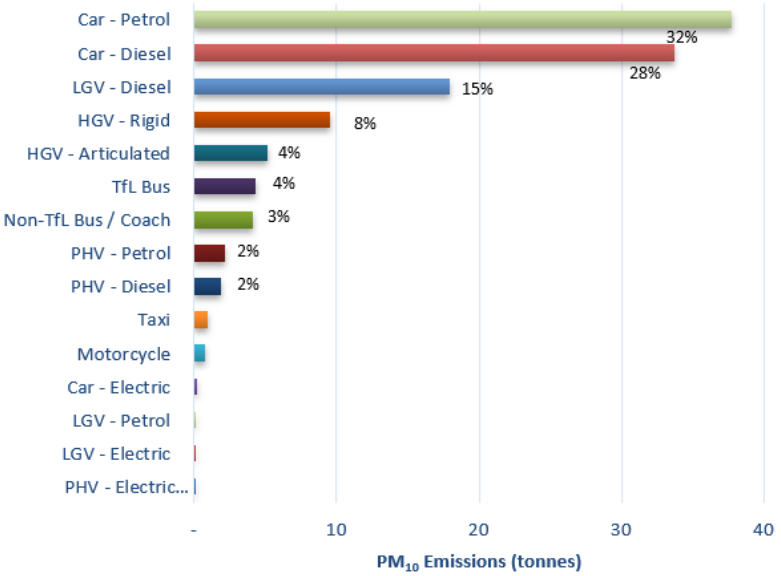
NB excludes aviation emissions

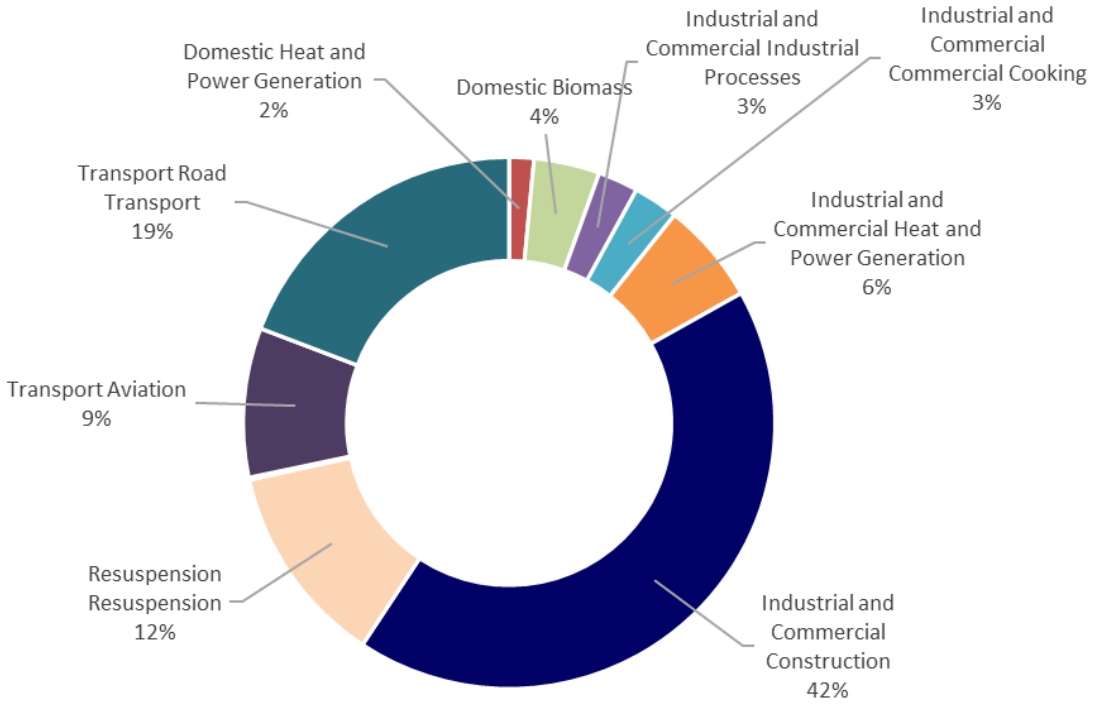


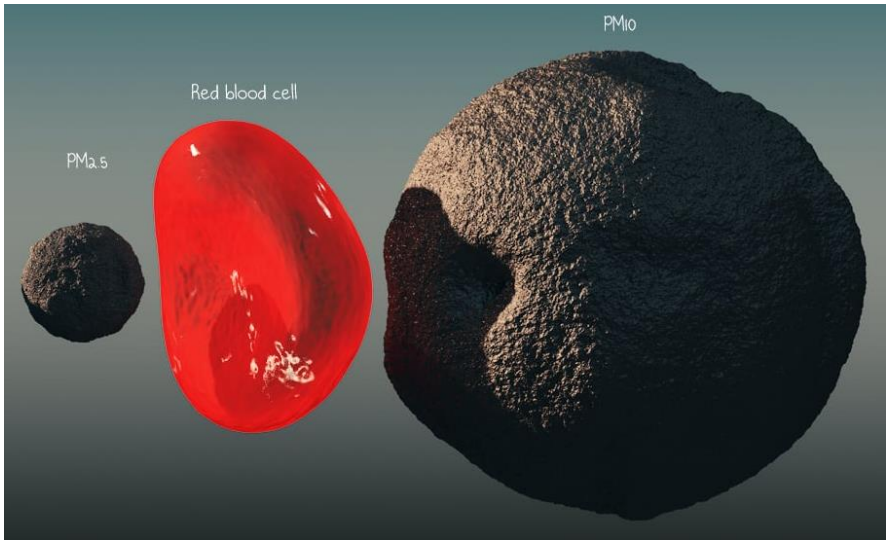
Sources of PM_{10} in Hillingdon

The figures shows that the main sources of PM_{10} in Hillingdon are construction (42%) and road transport (19%). Of the road transport sources, Figure 18 shows that petrol cars (32%) and diesel cars (28%) are the top two emissions sources.

All data taken from the LAEI 2019 inventory.



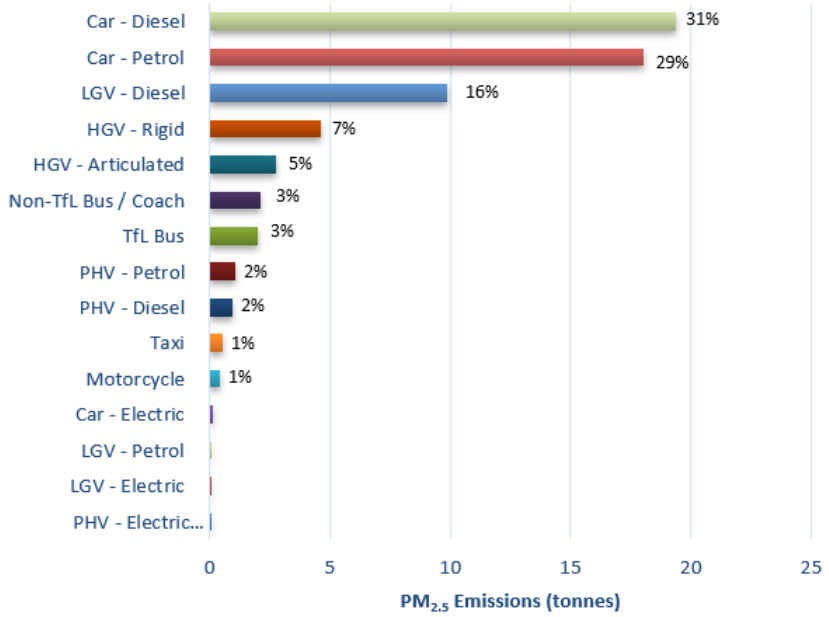


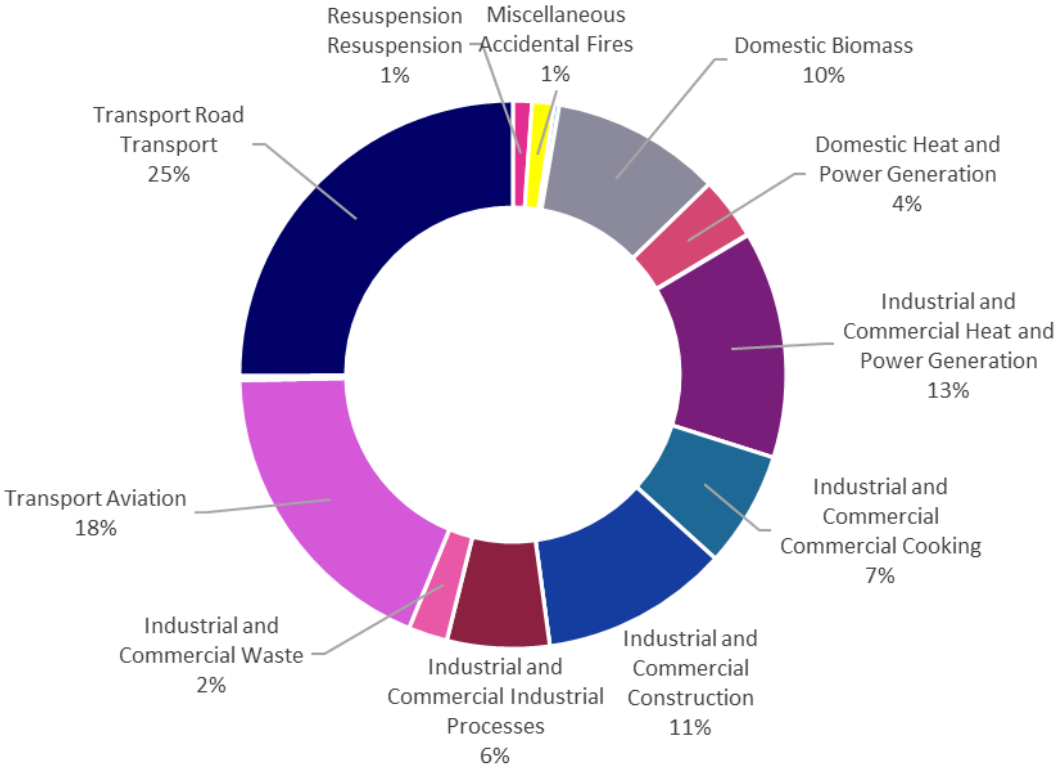


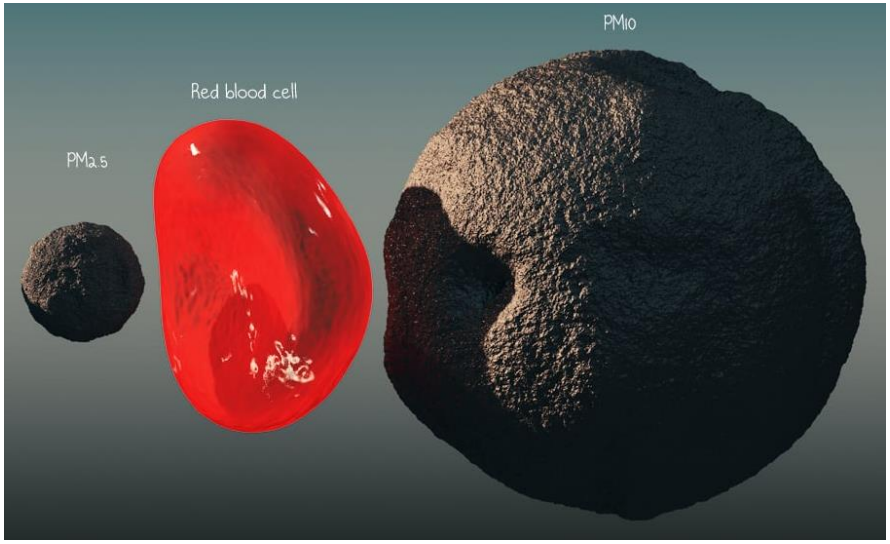
Sources of $PM_{2.5}$ in Hillingdon

The pie chart shows that, of the pollution originating from within Hillingdon, the main sources of $PM_{2.5}$ are road transport (25%) and aviation (18%).

Of the road transport sources, the graph shows that diesel cars (31%) and petrol cars (29%) are the top two emissions sources.







London Borough of Hillingdon
Annual Mean NO_2 concentrations 2030

LAEI 2019

Air Quality Forecasting

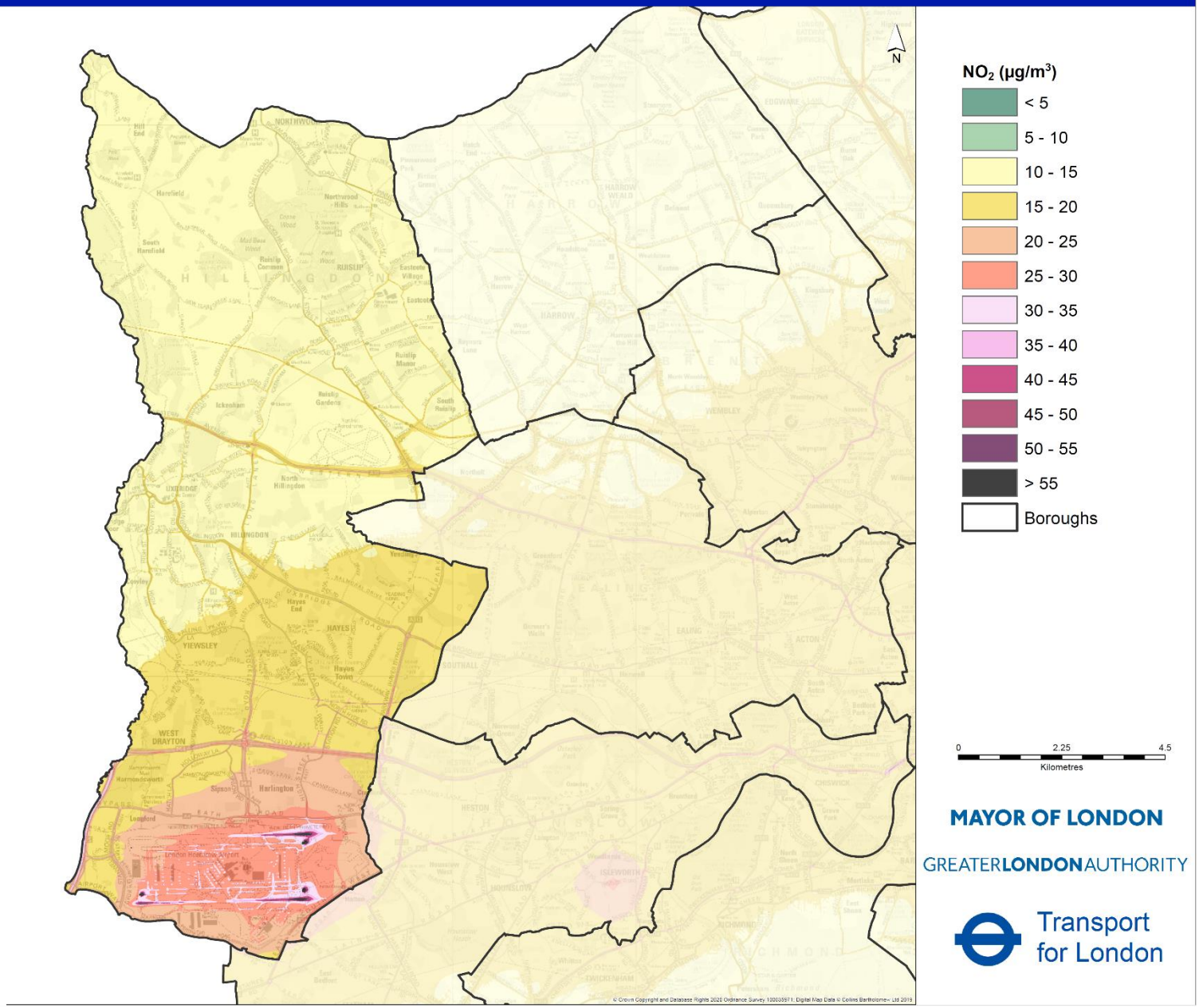
NO_2

The GLA has undertaken modelling to forecast future air quality to help develop actions and understand future priorities.

The map showing NO_2 levels in 2030 reveals ongoing concerns in the borough particularly around Heathrow Airport.

Whilst the levels are largely within the current air quality objectives for the UK, there are sizeable areas, that would be within the areas of concern recognised by the WHO.

The modelling takes into account improvements to motor vehicles and enhanced technology to limit emissions. However, the levels remain a health concern requiring targeted interventions.



London Borough of Hillingdon
Annual Mean PM_{10} concentrations 2030

LAEI 2019

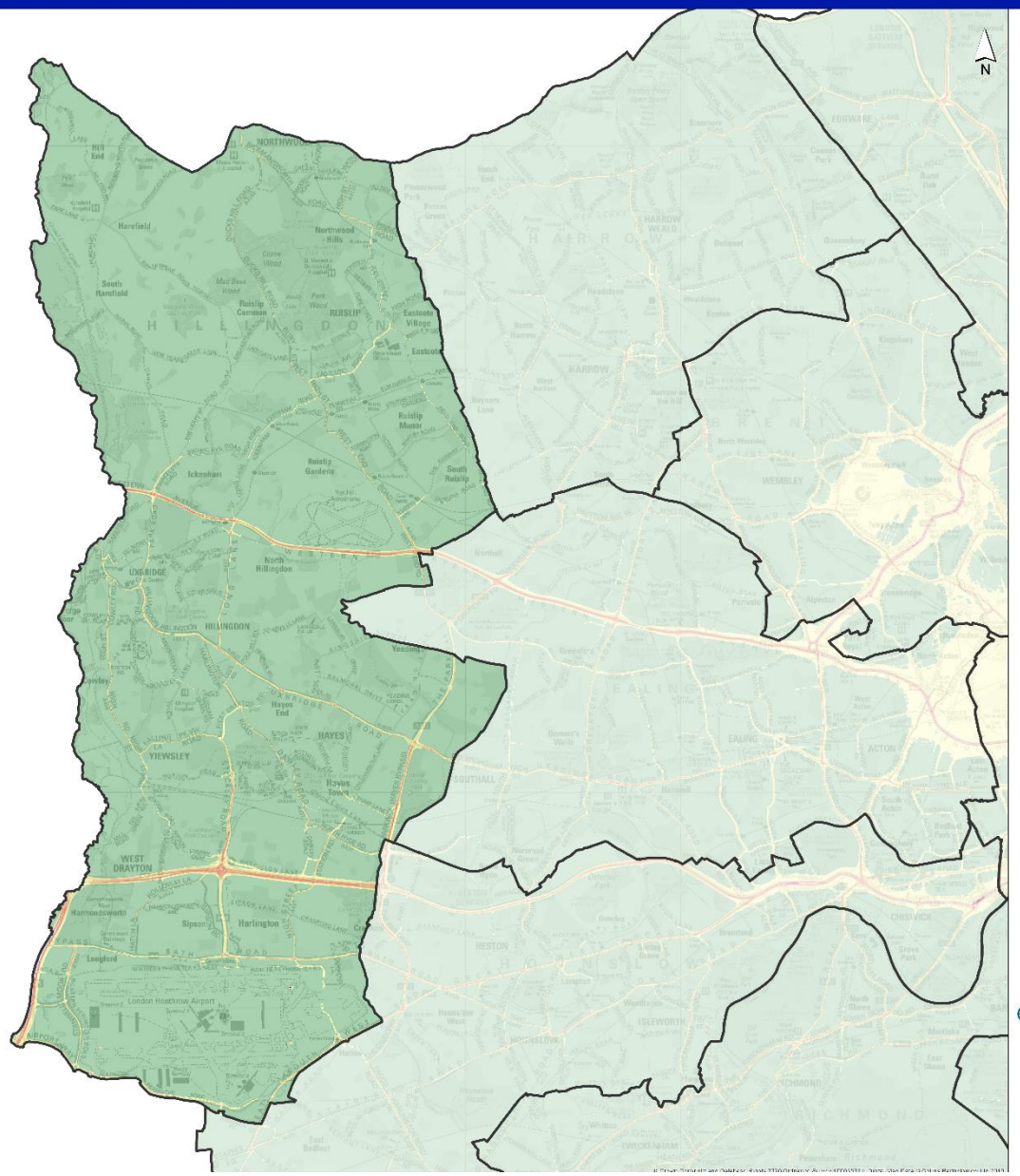
Air Quality Forecasting

PM_{10}

The GLA has undertaken modelling to forecast future air quality to help develop actions and understand future priorities.

The map showing PM_{10} levels in 2030 reveals concerns along the main transport corridors although there is a clear improvement from the baseline position.

Once again, although the levels are broadly within the UK limits they are shown to be on the cusp of the WHO limits of 15ugm/m^3



MAYOR OF LONDON

GREATERLONDONAUTHORITY

Transport for London

London Borough of Hillingdon
Annual Mean $PM_{2.5}$ concentrations 2030

LAEI 2019

Air Quality Forecasting

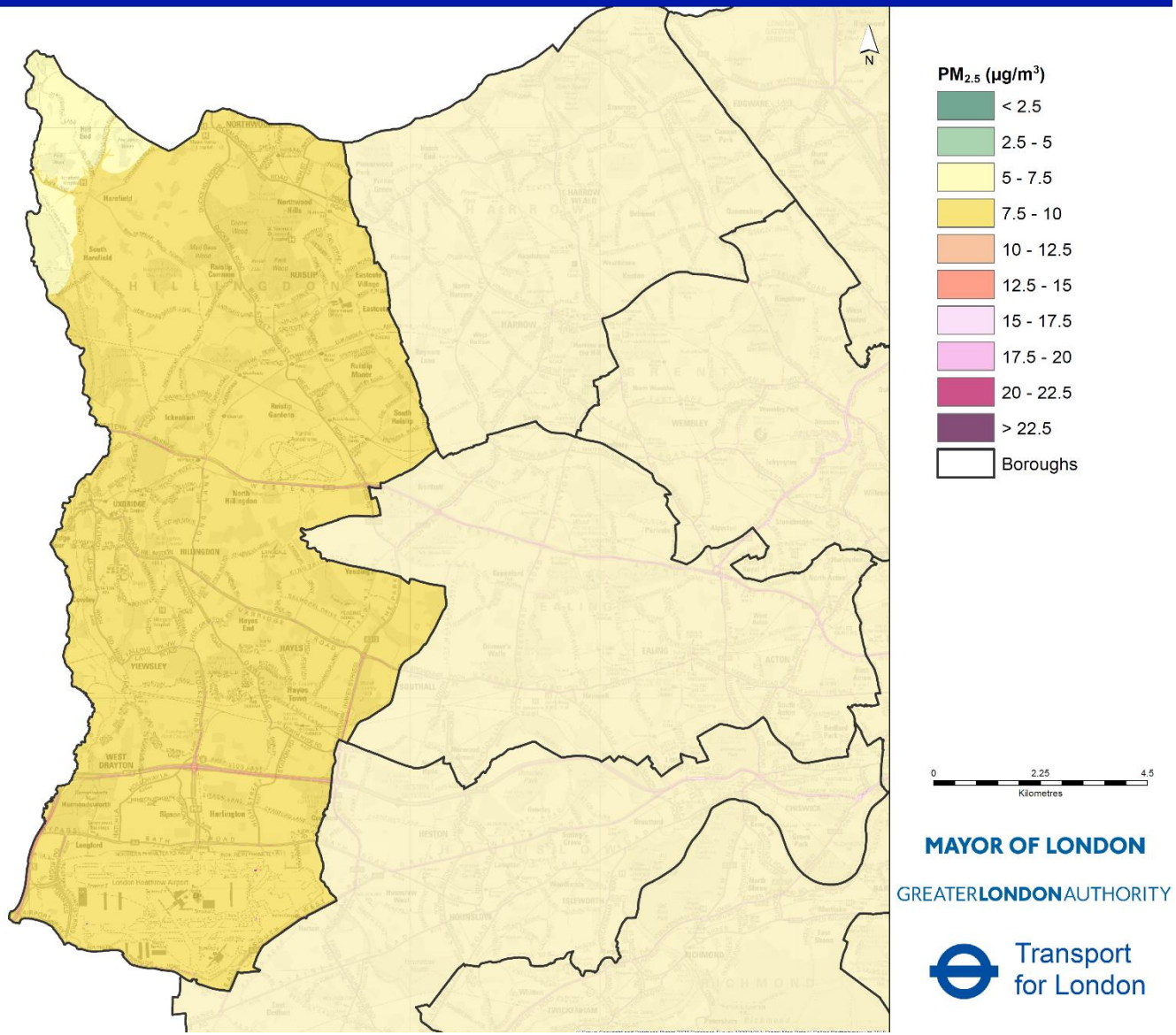
$PM_{2.5}$

The GLA has undertaken modelling to forecast future air quality to help develop actions and understand future priorities.

The map showing $PM_{2.5}$ levels in 2030 reveals almost widespread compliance with the 2040 UK objective (2030 in London) of 10ugm/m^3 although the transport corridors remain a concern.

Once again, although the levels are broadly within the UK limits they are shown to be entirely above the WHO limits of 5 ugm/m^3

Compliance with the WHO target is highly complicated but it does illustrate the disconnect between UK limit objectives and the overall objective of safe levels of air quality.



6. Borough Specific Issues

The information in the previous section reveals that the source of emissions largely fall outside our regulatory control.

In such cases improvements in air quality will require actions by others. We have therefore incorporated additional measures to those identified by the UK Government and the Mayor of London.

Heathrow Airport

The operation of Heathrow involves several different pollution sources which contribute to the local pollution levels, from the aircraft and other on-airport operations within the boundary itself to emissions associated with the road vehicles on the surrounding road networks associated with passengers, staff and freight operations. It is a major source of emissions in the borough.

We remain strongly opposed to the expansion of the airport. One of the key reasons for this is the air quality implications of expanding this pollution source in a densely populated area of the borough already subject to poor air quality.

The forecast information above shows Heathrow Airport to remain a future area of concern whilst improvements are realised elsewhere in the borough.

Heathrow Airport has a strategy aimed at reducing emissions from their activities. The Council will seek regular updates on progress and challenge the level of ambition and implementation when appropriate.

More is required beyond this strategy and through this Action Plan, we will deliver a specific plan for Heathrow Airport that will target interventions in the local area and challenge the airport operators to help deliver meaningful improvements.

This will also address the monitoring and reporting of ultrafine PM as explained above.

Strategic Road Network

We have a series of major road networks that are routed through the borough. Consequently, there is a large quantity of pollution from transient vehicular traffic. The borough is therefore adversely impacted by its geographical position as a transport corridor connecting London with the surrounding counties.

We have no control over this traffic or the road network to improve flows and to reduce emissions. However, we will continue to work with the strategic highway network authorities, National Highways and Transport for London to ensure pollution from their managed networks is minimised and considered as part of any changes to the operations.

TFL

The operation of the strategic road network in the borough is the responsibility of TfL. The impact this has on air quality is demonstrated by the fact that several focus areas are associated with roads such as the A40, the A312 and the A4 that are under TfL control. We will work with TfL to ensure improvements in these areas are treated as a priority for action.

In addition, TFL is largely responsible for public transportation that is necessary to deliver a modal shift away from polluting vehicles. Our borough suffers from relatively poor connectivity compared to other boroughs in London. In particular, the north-south corridor is especially poorly served.

Improvements to the public transport provision have been realised but a greater degree of interventions are necessary to drive the modal shift away from polluting forms of private transportation.

7. 2025 – 2030 Priorities

We are committed to ensuring that our communities have cleaner air to breathe. In delivering this commitment we have given priority to specific actions set out in this Plan to improve air quality

Our priorities reflect the areas of action that are most likely to deliver benefits to local air quality directly or indirectly by reducing emissions at its source and or minimising public exposure to pollution to the maximum possible extent.

Theme 1 – Monitoring and Reporting

Actions under this theme play an important role in local air quality management as they enable us to understand where pollution is most critical, and what reduction measures are effective.

We have statutory duties to monitor and report on air pollution levels. These have recently been made more stringent through the Environmental Target Regulations 2023. This necessitates a review of our monitoring network to ensure it is optimum and provides the most useful and relevant information to allow us to understand air pollution in the borough.

Theme 2 – Improving the Urban Environment

This theme is about protecting and improving the environment we live in by managing new development and seeking meaningful interventions to create a healthier urban environment.

Importantly, it is about delivering actions that have multiple benefits, for example biodiversity enhancements through more urban planting, or creating connectivity that directs people away from sources of pollution.

Theme 3- Cleaner transport

Road transport is the main source of air pollution in London. We will incentivise walking and cycling, providing infrastructure to make our streets safer and more inclusive, aiming for a reduction in traffic.

We will deliver more electric vehicle charging infrastructure and work with TfL to provide clean public transport.

We will work to reduce emissions from vehicles delivering goods and services. We will lead by example, by tackling our own fleet means as we seek less polluting vehicles to carry out our vital services.

Theme 4 – Protecting the vulnerable

In addition to protecting communities, we will pay particular attention to the most vulnerable given their susceptibility to much lower pollution levels and also to remove socio economic inequalities.

This will require close collaboration with public health colleagues and utilising existing and creating new channels for education and support.

Theme 5 – Education and Awareness

Schools will remain a focal point for priority action and We will work with schools to help them implement measures to reduce exposure both onsite and on the journey to school. This will focus initially on those in the areas of poorer air quality and where schools are close to busy roads but will be broadened out to all at risk schools and schoolchildren.

Raising awareness and putting in place tools to understand more about air pollution will educate our communities. We will work closely with our public health providers and use online tools to ensure our communities can make healthier decisions, whether this is through the choice of transportation or routes to avoid known pollution hotspots.

8. Theme 1: Monitoring and Reporting

Why it's important

We monitor air quality to conform with our legal responsibility towards our Air Quality Management Area (AQMA) and to capture pollution trends across the borough so we can manage it appropriately. By monitoring air quality around the borough, we can assess our compliance with the air quality objectives, and evaluate the effectiveness of our decision-making process, policies and projects. This can also be used to help provide information and alerts for residents, schools, workers and visitors when pollution levels are elevated.

Sharing air quality information via online tools allows our communities to be engaged with our Local Action Plan activities, be aware of pollution levels and be advised on low exposure actions and routes to protect their health.

What is already happening

We have been successfully running a comprehensive air quality monitoring network over the last twenty years, which includes continuous monitoring sites, nitrogen dioxide (NO_2) diffusion tubes, and more recently, some low-cost sensors. We keep the network under review so that changes in local conditions, emerging technologies and current thinking around best practices in monitoring are considered.

This approach improves the delivery and performance of services, contributes to a better geographical coverage of air pollution mapping, and contributes to the understanding of health impacts.

What we will do

We will continue to secure a high standard of air quality monitoring network in the borough as well as the timely publishing of real time data to a variety of users through the Council's web page. In addition, we will consider further extending both the coverage and the number of locations monitoring $PM_{2.5}$.

Based on current evidence, $PM_{2.5}$ is thought to be the air pollutant which has the greatest impact on human health. The Mayor of London has made a commitment to reduce $PM_{2.5}$ concentrations in London to meet the World Health Organisation (WHO) interim guideline of 10 ug/m^3 by 2030.

We will improve the number of monitoring stations that record $PM_{2.5}$ and add more low-cost sensors to directly measure the actual concentrations of this pollutant in the borough.

We will also redesign our web page to make it more informative, engaging and educational to the benefit of our communities.

To further understand our pollution sources, we will undertake an emission inventory assessment in the most sensitive areas of the borough.

Finally, we recognize the increasing concerns relating to ultrafine PM and aviation. We commit to improving the spread of monitors to record this pollutant with actions taken to address impacts as they become known.

What we have already achieved

We currently measure air pollution in our borough at:

- 12 automatic continuous monitoring sites,
- two low-cost sensor monitoring sites and
- passive diffusion tube monitoring of NO_2 at 44 sites in the Borough

- During our previous plan, we have increased our diffusion tube network by 16 locations expanded to include monitoring tubes both outside and inside our AQM so that we now have comprehensive coverage across the borough at identified sensitive areas.
- We have added an additional automatic monitor in collaboration with Heathrow Airport Ltd. This is located on the Bath Road and monitors NO_2, PM_{10}, and $PM_{2.5}$.
- We have also added two low-cost sensors from the London Breathe project which were deployed in 2021 covering both NO_2 and $PM_{2.5}$ and capturing local conditions at Tavistock Road and Harlington Road.

Monitoring and Reporting	What we will do	Responsibility for delivery	Timetable
Action 1	Maintain the delivery of high quality data recording covering all local authority regulated pollutants and ultrafine PM in the Heathrow area	Environmental Specialists	Ongoing
Action 2	Maintain an online repository for all annual status reports that is publicly available	Environmental Specialists	Ongoing
Action 3	Review and improve the air quality monitoring network throughout the borough to ensure: ▪ Sufficient geographical scope of equipment ▪ Sufficient spread of monitoring equipment including expanding those capable of recording $PM_{2.5}$ and PM_{10} ▪ New locations for ultrafine PM ▪ Investing in new low cost sensor technology to be targeted toward priority locations (schools, hospitals, care homes and in Air Quality Focus Areas.	Environmental Specialists	25/26
Action 4	Roll out monitoring to schools in areas of high pollution and or congestion/poor dispersion conditions. We will extend monitoring to cover sensitive areas that fall into our goals for protecting the vulnerable.	Environmental Specialists	Short / Medium Term
Action 5	Participate in and support the Breathe London monitoring regime. Positively encourage and support citizen science / London Breathe activities where these actively contribute to air quality monitoring and identifying and tackling air pollution in the Borough.	Environmental Specialists	Ongoing
Action 6	Continuing the fulfilling other statutory duties including reporting obligations, regulation of industrial sources, and dealing with complaints of environmental nuisance	Environmental Specialists	Ongoing
Action 7	Undertake emission inventory work at selected sensitive areas within our Focus Areas	Environmental Specialists	Short / Medium Term

9. Theme 2 – Improving the Urban Environment

Why is it important

Industrial, commercial & domestic heating and power generation is one of the main sources of NO_2 and a significant source of Particulate Matter (PM_{10} and $PM_{2.5}$) emissions. Traffic associated with new development also generates a significant amount of pollutant emissions.

Unfortunately, a lot of new development is likely to result in a net increase in emissions without any interventions. Industrial uses requiring logistical support or residential units needing car parking will all result in likely increases in air pollution, either through tailpipe emissions, or contributing to tyre and breakpad wear.

Developments that don't directly or indirectly result in additional air pollution is highly unusual. Managing air quality is through the planning system is therefore a vital matter and important in considering the built environment.

In addition, positive interventions can have a significant impact in both reducing emission and minimising exposure. Developing these interventions is specific to a local area and can have more meaningful impacts with multiple benefits, e.g. improving urban wildlife, helping to adapt to a changing climate and improving connectivity for communities.

What is already being done

With regards to new development, we require an air quality zero emission, or better, approach for development proposals that fall within or have impacts in Focus Areas and other sensitive locations.

Whilst the development would still likely contribute to air pollution, this can be offset by mitigation measures and through securing damage costs which form a payment to allow us to implement the actions of this Plan.

We also use the planning system to deliver new facilities including cycling infrastructure, electrical charging points and green planting.

We are participating on a regional project on delivering cleaner construction throughout the south of London, involving 14 local authorities. We have currently inspected more than 400 major sites and are delivering around 85% compliance rates.

We have already undertaken considerably more tree planting with delivery in air quality focus areas as well as within streets and provided air quality screening at many of schools and protected at risk parks.

What we will do

We will continue to pursue better developments using the planning system to result in net improvements in our Focus Area.

We will produce specific Focus Area Action plans and develop approaches to cleaner greener urban spaces. This will be supplemented by a Heathrow Airport Area Action Plan

We will improve connectivity between our well used spaces that reduce exposure to air pollution.

We will continue to enforce the non-road mobile machinery low emission zone in collaboration with key partners.

We will improve the urban environment through creative measures relating to planting and street furniture that not only improves air quality but contributes to wider benefits.

What we have already achieved

- During our previous plan, we have included the need to determine the level of mitigation necessary using Defra's Damage cost approach on total development emissions of NOx and $PM_{2.5}$ across the borough at identified sensitive areas (e.g. Focus Areas and their catchment areas). We consistently applied our pioneering planning Defra damage cost approach to determine the level of mitigation necessary for development affecting the borough's Focus Areas and hence securing appropriate mitigation.
- We have provided pollution protection screening at all our schools exposed to the most risk
- We sought a zero emissions approach towards developments when located in or affecting sensitive areas such as Air Quality Focus Areas, near vulnerable receptors such as schools, care homes, hospitals, and densely populated residential areas.
- We have made sure that masterplanning and redevelopment areas were aligned with Air Quality Positive and Healthy Streets approaches.
- We have also ensured adequate, appropriate, and well-located green space and infrastructure is included in new developments. We have used green infrastructure as buffer zones between people and roads. We have adopted the same approach to considering new footpaths and cycleways where relevant, i.e. routing people away from areas with higher levels of air pollution.
- We have been ensuring enforcement of Non-Road Mobile Machinery (NRMM) air quality policies in collaboration with our London partner authorities. We undertook 85 construction site audits of which 15 were not compliant and required to comply with the NRMM regulations.
- Diesel generators attached to development such as data centres have proven to be a significant source of pollution over their lifetime (around 25-30 years). We have sought mitigation from these sources using the damage costs approach to gain a S106 obligation when mitigation provided by the developer was insufficient to mitigate total emissions. This approach has been subject to Planning Inquiries and accepted by the Inspectors as a valid and acceptable approach.

Improving the Urban Environment	What we will do	Responsibility for delivery	Timetable
Action 8	Require all new developments (where applicable) are as a minimum air quality neutral applying the DEFRA damage cost approach for those that cannot achieve compliance within the development	Environmental Specialists Team	Ongoing
Action 9	Require all new major developments located in Air Quality Focus Areas to be air quality positive (i.e. result in improvements) and applying the DEFRA damage cost approach for those that cannot achieve compliance within the development	Environmental Specialists Team	Ongoing
Action 10	Continue to be part of the NRMM Project across the south of London and to ensure enforcement of Non-Road Mobile Machinery (NRMM) air quality policies	Environmental Specialists Team / Partner Authorities	Ongoing
Action 11	Increase urban tree planting and landscaping to provide healthier environments	Environmental Specialists Team / Green Spaces	Short / Medium Term
Action 12	Developing and promoting 'clean air' connectivity to town centres and green spaces	Environmental Specialists Team / Highways	Short / Medium Term
Action 13	Produce an air quality Area Action Plan for each Focus Area that identifies interventions and sets out approaches to provide cleaner greener environments. (to be delivered in phases with the first round the areas at highest risk)	Environmental Specialists	Short / Medium Term
Action 14	Produce a Heathrow Airport Air Quality Action Plan identifies interventions and projects that deliver air quality improvements.	Environmental Specialists	Short / Medium Term
Action 15	Ensure that the vision and aspirations in this plan are reflected in all land use planning and decision making to achieve air quality positive outcomes, particularly regarding: ▪ The Local Plan ▪ Masterplanning and regeneration strategies	Environmental Specialists	Ongoing
Action 16	Continue to request robust and enforceable measures to minimise the impact of developments during the construction phase ensuring emissions from construction are minimised to the maximum possible extent	Environmental Specialists	Ongoing

Action 17	Continue to reduce emissions from Combined Heat and Power (CHP).	Environmental Specialists	Ongoing
Action 18	Continue to ensure adequate, appropriate, and well-located green space and infrastructure is included in new developments.	Environmental Specialists	Ongoing
Action 19	Ensuring smoke control zones are adhered to	Community Safety	Ongoing
Action 20	Ensuring that data centres utilise the most low polluting fuel for back up generators and that proposals for their operation are assessed on a reasonable worse case scenario, with clear plans in place for testing and reporting.	Environmental Specialists	Ongoing
Action 21	Ensuring industrial sites regulated by the borough are done so on a frequent basis with appropriate reporting and controls in place	Community Safety	Ongoing

10. Cleaner Transport

Why is it important

Transport emissions contribute heavily to air pollution in the borough, as well as being a major contributor to London wide pollution. Transport accounts for 80% of total emissions. Road transport accounts for approximately 51% of emissions of NO_2 in the borough, if emissions from Heathrow airport are excluded. This contribution increases significantly when closer to busy main roads.

The most effective way to improve air quality is to reduce our use of polluting vehicles and move towards more sustainable and active modes of transport, such as cycling, walking and public transport. This also has positive health and lifestyle benefits beyond just the reduction of air pollution.

However, we can't simply enforce a modal shift away from polluting vehicles. Due to the poor public transport connectivity serving our communities, the car remains an important part of daily life. Enforcing change on residents and businesses where there is no clear alternative can have significant social and economic implications and therefore an appropriate balance must be struck.

We aim to create an environment that provides improved opportunities for low or non-polluting forms of transportation. This combined with awareness raising and education provides the framework to enact change.

What is already being done

We have been promoting modal shift to cycling and walking in the borough, including the construction of new cycling routes, the provision of cycling facilities and the introduction of on-street cycle parking facilities.

We have delivered work funded by transport programmes including the Grand Union Canal Quietways link between Hayes and Cranford Park. This will give residents in Hayes a pedestrian/cycle route choice to access Cranford Park.

The continued implementation of the Canal Towpath upgrade has now provided over 3km of towpath Quietway standard. Further, we have completed Phase 1 of the North Hyde Road which is now more appealing to walking and cycling.

Over the course of the previous Local Action Plan we developed an Electric Vehicle (EV) strategy with short, medium and long term recommendations to increase EV awareness throughout the borough and increase the provision of infrastructure. We have also included in our procurement policies the requirement to promote use of cleaner vehicle technologies via contract tendering processes.

Our planning system has been significantly instrumental in reducing traffic emissions. It has helped to reduce emissions from deliveries to local businesses and residents via the requirement of robust and ambitious Travel Plans and planning conditions stipulating the requirement for Delivery and Servicing plans to be a minimum of Fleet Operator Recognition Scheme (FORS) silver award. It has also strongly supported the use and managed expansion of car clubs as a method of reducing the number of vehicles in our borough.

We have replaced a large number of outdated diesel-powered vehicles from our own fleet and increased the percentage of electric vehicles.

What we will do

In conjunction with our Local Implementation Plan (transport planning) we will develop various projects to reduce traffic impacts on air quality within Focus Areas of the borough. We will carry out area specific air quality action plans in our Focus Areas which will review traffic and building sources, traffic management, parking, obstructions, and

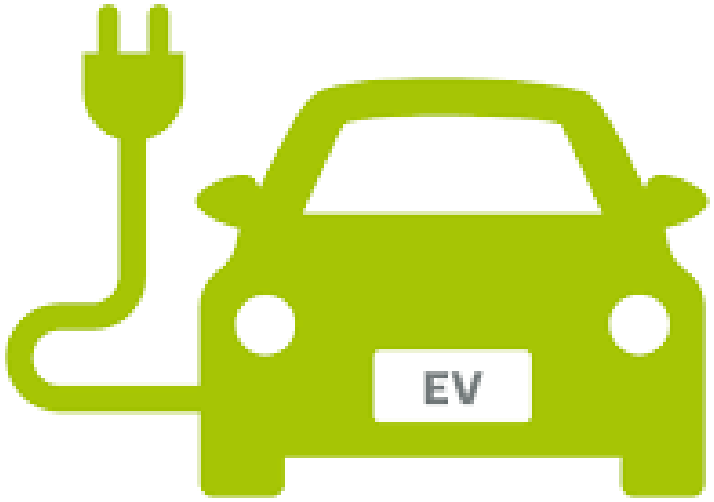
deliveries.

We will create an environment which promotes cycling and walking, including a change to infrastructure and green planting. We are committed to linking our Air Quality Action plan with our Cycling Strategy so that synergies and benefits arise from concerted action across the Borough.

We will continue to effectively use the planning system to reduce transport emissions to the maximum extent possible via zero emissions' approaches, appropriate mitigation requirements and S106 obligations.

We will continue to lobby those responsible for sources of pollutants from transport outside our control.

We will continue to review our fleet replacement and ensure that electric remains the preferred option for all replacements with clear justification presented where this is not preferred option.



What is already being done in Hillingdon

- During our previous plan, we have upgraded the towpath on Grand Union Canal from the southern borough boundary to Cowley.
- We have been using the council procurement policies to promote use of cleaner vehicle technologies via contract tendering process. All council contracts stipulated FORS registered and a minimum of Euro VI/6. The specific inclusion of low/zero emissions technologies has been investigated in 2020/2021. All fleet vehicle replacement tenders have been seeking two tenders: one for diesel - fuelled and one for electric.
- Planning conditions on new development stipulated the requirement for Delivery and Servicing plans to be a minimum of FORS silver award. This included the requirement to report on fuel usage and emissions of CO_2, NOx and PM emissions plus a policy to actively reduce fuel consumption and minimise their environmental impact.
- The council fleet replacement programme included the upgrade of 77 specialist vehicles to Euro VI/6. These all meet the LEZ standard.
- Our own fleet has been enhanced through the following:
    - New fully electric pool cars
    - Additional self-charging hybrid pool cars.
    - 32 fully electric vans have replaced diesel versions.
- The TfL bid to Green and Healthy Streets Fund was successful with the Hayes Focus Area North Hyde Road study actions being prioritised for implementation. TfL funds have been supplemented with air quality S106 funds.
- Transport and Air Quality policies as well as projects have been integrated via the implementation of the Healthy Streets in LIP projects. Successes include the residents led Healthy Streets Transport Study for Oak Farm residential area with a series of recommendations put forward.
- Funding has been allocated for a project to audit Hillingdon owned roads in terms of the Healthy Streets Index. This will identify actions for implementation using areas of poor air quality as a priority criterion for action. The Healthy Streets study is currently being scoped. Priority in terms of timescales will be given to streets in poor air quality areas.

Cleaner Transport	What we will do	Responsibility for delivery	Timetable
22	Improve and/or provide walking and cycling infrastructure and create more opportunities for modal shift away from polluting vehicles	Environmental Specialists / Highways	Ongoing
23	Promote the use of cleaner walking and cycling routes in the context of reducing exposure to air pollution	Environmental Specialists / Highways	Ongoing
24	Promote the use of low emission vehicle technology through appropriate measures and targeted action.	Environmental Specialists / Highways	Ongoing
25	Reduce emissions from Council vehicles.	Procurement	Ongoing
26	Support and enhance the delivery of the Council cycling strategy in the context of reducing air pollution and minimising exposure to it	Environmental Specialists / Highways	Ongoing
27	Identify opportunities through the Air Quality Area Action Plans to improve opportunities for cleaner modes of transportation	Environmental Specialists / Highways	Short/Medium Term
28	Ensure transport planning and plans (i.e. Local Implementation Plan) aligns with the aims and objectives of this plan	Environmental Specialists / Highways	Ongoing
29	Ensure that reviews of parking policies and strategies align with the aims and objectives of this plan	Environmental Specialists / Highways	Ongoing
30	Encourage local business to use with low-carbon transport alternatives such as e-Cargo bikes, as well as encouraging take up of low emission vehicles.	Environmental Specialists / Highways	Ongoing

31	Include policies in procurement strategies to promote the use of cleaner vehicle technologies via contract tendering processes.	Environmental Specialists / Highways	Ongoing
32	Continue to lobby TfL, so that cleaner buses are deployed to our borough	Environmental Specialists / Highways	Ongoing
33	To work with TFL to secure an annual report on actions and performance to improve air quality in the borough: ▪ through improvements to their fleet ▪ through public transport improvements	Environmental Specialists/TFL	Ongoing
34	Year on Year increases in electric vehicle charging infrastructure and review opportunities to maximise geographical scope (i.e. on street parking where appropriate and feasible)	Environmental Specialists / Highways	Ongoing
35	Continue to promote and enforce no-idling and identify areas that require targeted interventions, i.e. at schools and other sensitive places.	Environmental Specialists / Community Safety	Ongoing
36	Continue to work in partnership with Highways England to ensure effective mitigation of arising air quality impacts on the local communities.	Environmental Specialists	Ongoing
37	Continue to work in partnership with HS2 Ltd to ensure effective mitigation of any arising air quality impacts on the local communities relating to HS2 construction activities.	Environmental Specialists	Ongoing

11. Theme 4: Protecting the Vulnerable

Why is it important

2021 WHO Global Air Quality Guidelines (AQGs) have provided clear and robust evidence of the damage air pollution inflicts on human health, at even lower concentrations than previously understood. The guidelines recommend updated, much lower air pollution levels to protect the health of populations. Eliminating or minimising exposure to air pollution is critical to health and wellbeing.

Children, are particularly vulnerable and air pollution can lead to reduced lung growth and function, respiratory infections and aggravated asthma. In adults, ischaemic heart disease and stroke are the most common causes of premature death attributable to outdoor air pollution, and evidence is also emerging of other effects such as diabetes and neurodegenerative conditions.

The report 'Every Breath You Take' (2016) produced by the Royal College of Physicians and the Royal College of Paediatrics and Child Health uses the term 'vulnerability' to express the broad range of determinants whereby the health impacts of pollution are unequal. It includes a person's biological susceptibility as well as environmental, social, economic, and behavioural factors that may make a person more susceptible to air pollution.

Research also indicates clear links between air pollution and areas of deprivation. It shows that people in deprived areas are disproportionately more exposed to higher concentrations of pollutants, often because their homes, workplace or local schools are located near busy roads with high concentration of vehicle emissions, which is a major contributor of air pollution in London.

The Royal College of Physicians have recommended healthcare professionals assist vulnerable patients to protect themselves from the worst effects of air pollution. For those with asthma for instance, NICE (National Institute for Heath and Care Excellence) highlight the importance of including advice within personalised action plans on reducing exposure to outdoor air pollution.

In their general guidance on air pollution, NICE also highlighted the need for healthcare professionals to be aware of vulnerable groups who could be affected by air pollution and for them to give general advice on how to minimise exposure, including giving informational materials.

What is already being done

We have worked with other northwest London air quality and national health colleagues to roll out a campaign to all GPs across the region alerting them to the availability of AirText for their vulnerable patients and included an animated video on the impacts of air pollution on health plus an introductory leaflet on the harmful impacts on health from air pollution.

We have also been engaging with schools via the "Provision of walking maps" project to schools in the borough, with almost 70 schools engaged. We promote School Travel Plans and are members of TfL STARS school travel plan accreditation scheme.

We have been doing extensive work on discouraging unnecessary idling by taxis and other vehicles with particular incidence at school locations.

The pollution barrier project at schools was completed in 2022/2023. This has created green barriers at over 49 schools across the borough. In addition, 40 trees have been planted in local schools and the concept of the introduction of Nectar Cafes is being trialed using plants that are beneficial to insects and other wildlife as well as reducing air pollution. In addition to providing added opportunities for wildlife they will introduce the concept of quiet green zones

within school playing areas.

Aiming at reducing exposure at other sensitive locations, a project to extend the concept of using green infrastructure to protect public exposure to pollution has been implemented at eleven amenity playing areas across the borough. The designs were tailored to each site and a combination of hedging and trees were used to maximise the benefits. Across these and other schemes, a total of 17,295 trees have been plated across the borough.

What we will do

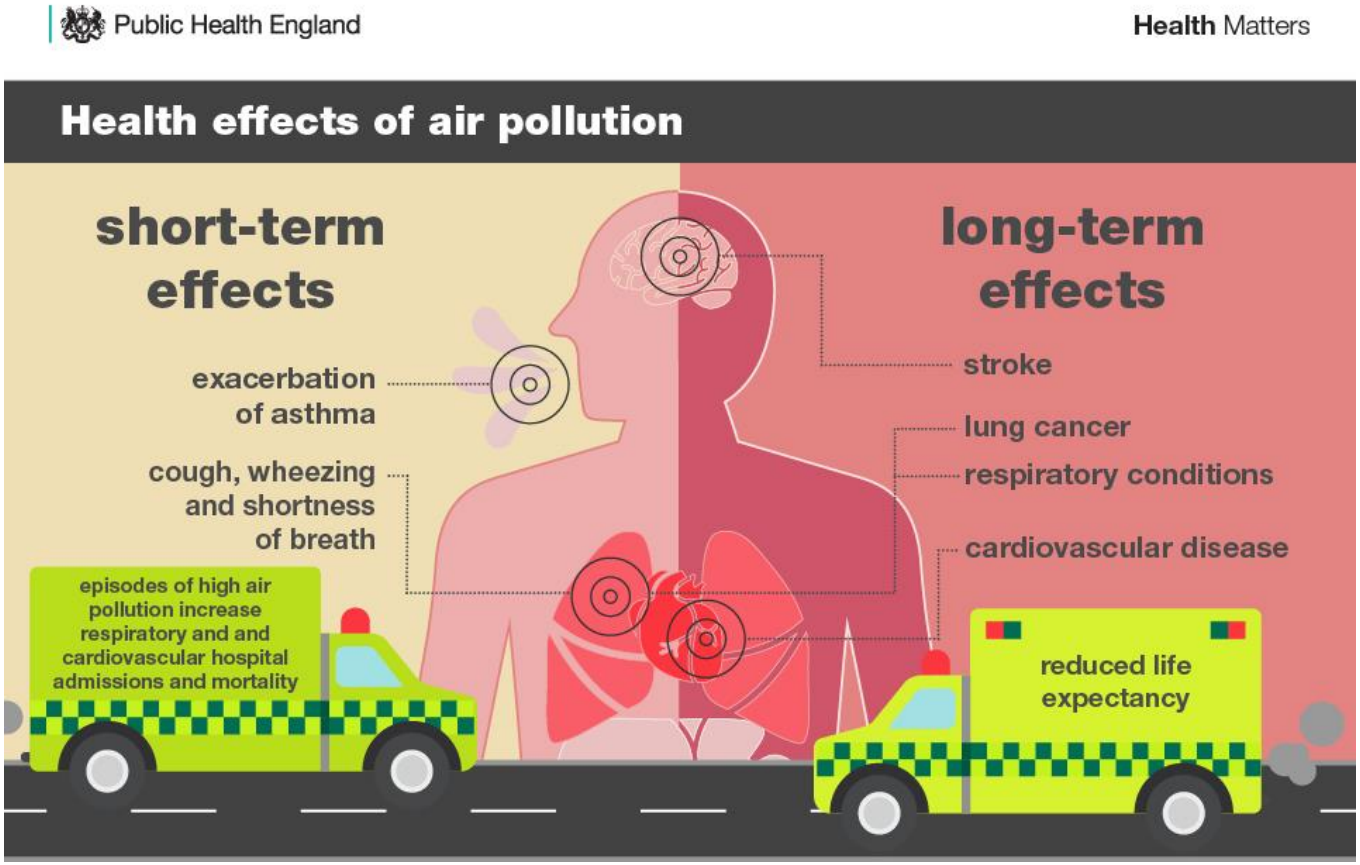
Our priority action will be to design a project aiming at delivering a series of sessions to GPs and Health Centre facilities with a view to train them as air quality champions so that they can advise patients regarding pollution exposure reduction strategies. As part of the project, information materials will be produced and disseminated at key locations including schools and health facilities.

We will extend this project to include a series of workshops in schools reaching pupils and parents, engaging students with personal monitoring activities to ascertain high and low pollution routes when communizing to school, and the production and dissemination of various materials though a variety of media (webinars, videos, maps, leaflets, web pages, and social media).

We will work with our public health colleagues when developing our Air Quality Action Plans to ensure we have local specific mitigation and measures in place to identify and protect the most vulnerable.

We will also continue to enforce no-idling to reduce emissions in sensitive areas.

We will prioritise at risk schools for further interventions with action plans to be in place for those exposed to the highest levels of risk.



What is already being done in Hillingdon

- All schools were alerted to the No Idling webinairs.
- All schools have been alerted to the London Schools Pollution helpdesk. The Travel team have encouraged the use of the site in linking the activities to the individual school travel plans to help towards STARS accreditation.
- A total of 63 schools have received walking maps for the school and local area, the maps are displayed at each school entrance, with 11 schools expressing an interest for follow up workshops.
- The bikeability projects have re-started April 2023 with 22 schools booked in for training by the end of July 2023.
- 2023 Launch of the Big Pedal – schools compete to see who can record the greatest numbers of pupils, staff and parents making active journeys to school.
- As of end of 2023, there are 21 Gold, 5 Silver and 9 Bronze accredited schools in the Borough. A number of others are actively engaged with the Council and there are a number of activities being held in terms of sustainable travel and an increasing number interested specifically in air quality issues. In addition, 23 schools are actively engaged in the STARS scheme.
- In 2023 alone, in terms of promoting active travel, 8,849 pupils at Key Stages 1 and 2 have received pedestrian training and 1,203 of Year 6 pupils have received bikeability cycle training.
- All schools now have Walking Maps at school entrances and new footpaths are put in place where possible to encourage active travel.
- We have worked with other northwest London air quality and national health colleagues to roll out a campaign to all GPs across the region alerting them to the availability of AirText for their vulnerable patients and included an animated video on the impacts of air pollution on health plus an introductory leaflet on the harmful impacts on health from air pollution

Cleaner Transport	What we will do	Responsibility fordelivery	Timetable
Action 38	Developing a Cleaner Borough project that increases knowledge, supports GPs in understanding and identifying air pollution, and working with schools to find methods to reduce exposure to air pollution.	Environmental Specialists/ Public Health/ Education	2025/26
Action 39	Supporting Airtext alert system	Environmental Specialists	2025/26
Action 40	Promoting the Mayor's air pollution forecasts	Environmental Specialists / Communications	Ongoing
Action 41	Reducing pollution/pollutant emissions in and around schools	Environmental Specialists	Ongoing
Action 42	Expand our School Streets programme to ensure that our schools have updated and robust Travel Plans in place	Environmental Specialists	Short/ Medium Term
Action 43	Identify priority schools for air pollution audits and put in place action plans for those where impacts have been identified	Environmental Specialists	Short/ Medium Term
Action 44	Prioritising anti-idling initiatives near schools, hospitals, care homes, and sensitive residential areas of poor air quality	Environmental Specialists	Short/ Medium Term
Action 45	Working with Public Health Colleagues to ensure the objectives of this plan align with health campaigns and strategies	Environmental Specialists / Public Health	Ongoing

12. Raising Awareness

Why is it important?

The majority of people are responsible for contribution to air pollution to some degree. Whether this is through gas boilers at home, wood burners, or relying on polluting forms of transportation.

It is therefore essential that more people understand their own impacts and what can be done to reduce a contribution.

Importantly, increased awareness fosters a sense of responsibility toward our environment. When people understand the harm caused by pollution, they are more likely to support policies and initiatives that promote cleaner air.

Further, by educating people, we empower them to seek healthcare and address pollution-related illnesses as well as take action to reduce their exposure to poor air quality levels.

What is already being done?

Joint action between air quality, school travel, and public health officers has us to raise awareness of the issue of air pollution and to jointly take forward actions to help protect the most vulnerable in our communities.

Airtext information, a video and air pollution and respiratory health booklet were prepared by air quality and public health officers in Northwest London. The resources were sent to all GPs in the Northwest Area including in our borough.

We have engaged with 40 schools and delivered air quality awareness workshops . A trial has been undertaken of the delivery of an air quality and active travel education package. Schools also participated in the Mayor of London's 'No Idling' project with children participating in workshops and outside school events.

We have also been actively disseminating information and delivering awareness campaigns to discourage the use of wood burning. We have completed campaigns and messaging aimed to inform residents that the London Borough of Hillingdon has been a declared a Smoke Control Zone

We have contributed to various online tools and websites to provide real time information on air pollution and worked with the Mayor of London on London wide campaigns.

What we will do?

We will continue to develop significant action for raising awareness and communicating the importance of reducing pollutant emissions and personal exposure to air pollution with particular focus on the most vulnerable groups of the population though the lifetime of this Local Action Plan.

We will continue to disseminate information on the importance of complying with the Smoke Control Zone requirements and on the benefits of reducing significantly the use of wood burning devices as well as encourage the use of clean modes of transport.

We will improve online information and reading materials within libraries. We will work closely with GPs to ensure the vital information is understood and delivered through the channels with most impact.

What is already being done in Hillingdon

- Development and delivery of an Air quality raising awareness package for schools. This entailed air quality awareness workshops which were popular and very successful.
    - The aim of the workshops was to:
        - Raise awareness of the potential consequences of poor air quality on health and well-being;
        - Identify the causes of poor air quality;
        - Understand ways pupils can reduce their negative impact on air quality;
        - Motivate pupils to improve air quality and reduce their own exposure by walking, cycling or using public transport, especially for the daily journey to school;
        - Investigate the positive benefits of using sustainable travel;
        - Inspire pupils to motivate your entire school to make a positive change on air quality.
- Awareness campaigns and messaging informing that the borough is a declared Smoke Control Zone along with Council enforcement powers for non-compliance. Article in Hillingdon People magazine and distribution of point of sale posters/leaflets to fuel suppliers. Awareness campaign enhanced by specific information in the Hillingdon People magazine Sept/Oct 2019). This included information on what it means to live in a smoke control zone, the smoke control area regulations and signposting to information on compliant fuels and appliance..
- Article in Hillingdon people magazine in conjunction with Public Health, along with information of the change in legislation in regard to appliances and fuel.
- Advice has been regularly disseminated the using the Council's social media updates asking residents to avoid using wood burning stoves or lighting bonfires.
- Schools also contributed to the Mayors' No Idling project with children participating in workshops and outside school events.

Cleaner Transport	What we will do	Responsibility fordelivery	Timetable
Action 46	Raise awareness of the benefits of using low pollution routes to commute to work/school	Environmental Specialists	Ongoing
Action 47	Target schools and health practitioners to raise awareness of air pollution impacts on health	Environmental Specialists	Ongoing
Action 48	Promote the use of greener walking and cycling routes to help the delivery of the Council's transport objective of an increased mode share for walking and cycling	Environmental Specialists	Ongoing
Action 49	Raising awareness of Airtext and Mayor’s pollution forecasts	Environmental Specialists	Ongoing
Action 50	Promote the need for more green infrastructure such as hedges along roads, parks, schools, both internally and to all residents	Environmental Specialists	Ongoing
Action 51	Promote the Smoke Control Zone and educate about the harmful impacts of wood burners	Environmental Specialists	Ongoing
Action 52	Work with other London boroughs and the GLA on air quality improvement campaigns	Environmental Specialists	Ongoing

13. Developing the Air Quality Action Plan

In developing the Local Action Plan, we undertook a thorough analysis of the borough's pollution sources, their location in relation to human exposure, and the vulnerability of the receptors involved. Particular attention was paid to our Focus Areas, which are areas with long standing poor air quality, densely populated and or with a high degree of vulnerability, and where current measures are not sufficient to improve the air we breathe.

Step 1: Pre-consultation with GLA

The draft Action Plan will be discussed with the GLA in accordance with policy requirements prior to forma consultation.

This will provide an initial appraisal of the linkages with the wider work across London and to ensure compliance with the regulatory framework.

Step 2: Air Quality Action Plan Steering Group

The draft Action Plan will then be subject to review by our Steering Group which will be formed from members of teams from:

- Highways/Transportation
- Public Health
- Education
- Environmental Services
- Planning
- Communications

Step 3: Public Consultation

Following the finalisation of the Action Plan after Steps 1 and 2, there will be a full public consultation for a minimum of 6 weeks.

A public consultation response document will be prepared setting out the changes to the Action Plan. The final version will be presented to the Steering Group and Elected Members for final sign off.

Step 4: Adoption

Following the public consultation, the Action Plan will be Adopted and made available on the council website.

Step 5: Implementation

Once adopted, the Action Plan will be subjected to an Implementation Plan with timetables presented to the Steering Group.

This Implementation Plan will be a critical part of the process and set out the steps, stages and timelines for delivering the Actions.

Step 6: Monitoring and Review

The Action Plan will monitored in accordance with the Implementation Plan and in close collaboration with the Steering Group, the Cabinet Member for Air Quality and the Residents' Services Select Committee.

An annual statement will be posted online as part of the annual status report for air quality monitoring. This will provide an update on the progress against the actions being taken.

The plan will be subject to full review in 2030.