

TACKLING AIR QUALITY THE HACKNEY EXPERIENCE

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<https://www.menti.com/als611331zua>



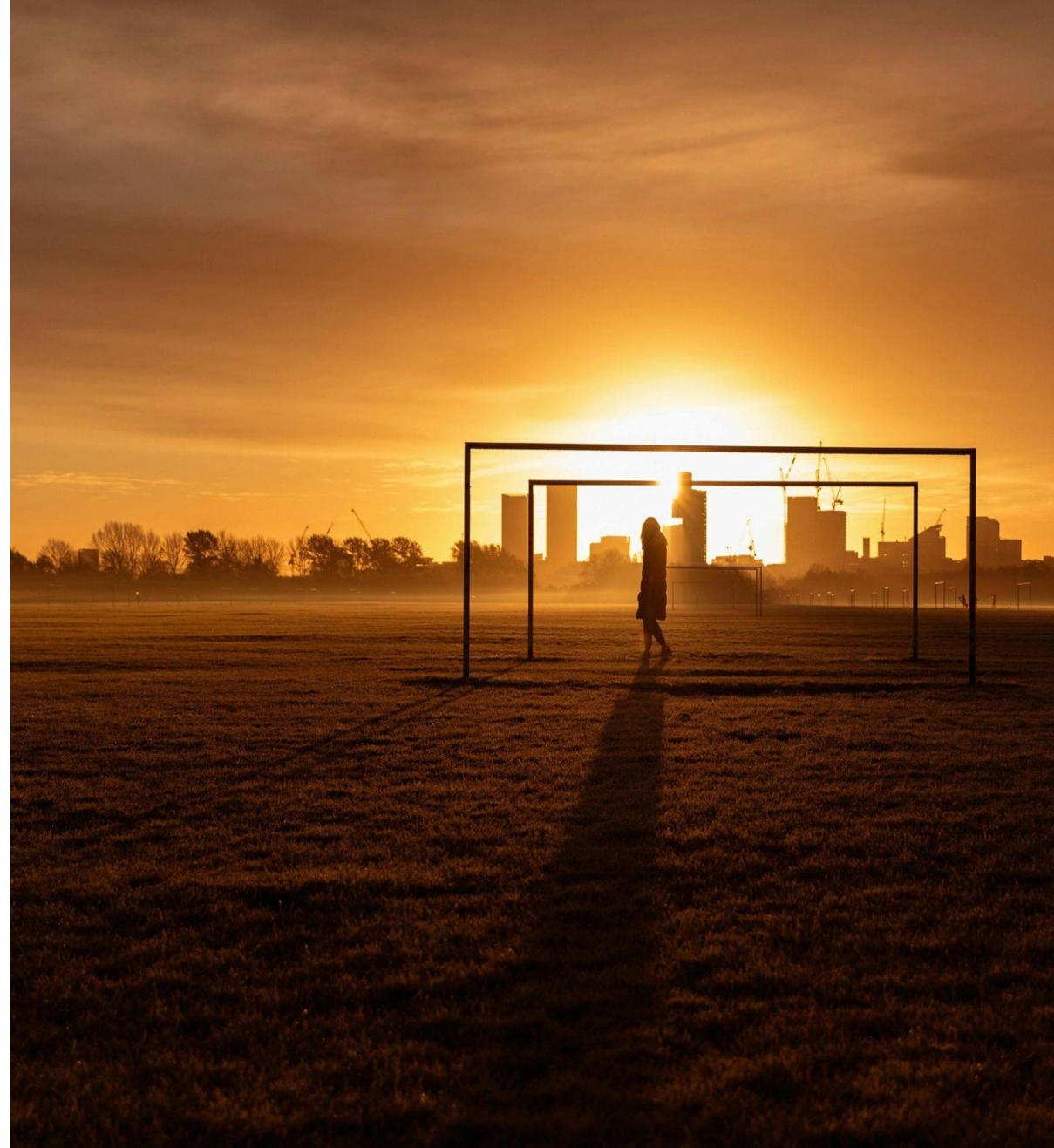
APSE Energy Conference
Southampton
September 2026

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COMING UP.....

- The pollutants and their sources
- The health impacts
- Air Quality in Hackney
- Example Actions
- Engaging the public



Facts about Hackney

Population:	260,000
Area:	19.06 km ²
% of population over 55:	15%
Number of different main languages:	89
Km of road network:	270.4
% of households with a car:	35%
Number of parks:	58

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Photo by [Samuel Regan-Asante](#) on [Unsplash](#)

Air Quality - The Pollutants

Pollutant	Averaging Period	UK Statutory Objective	WHO Air Quality Guideline
Nitrogen dioxide (NO ₂)	Annual Mean	40µg/m ³	10µg/m ³
Nitrogen dioxide (NO ₂)	1-hour Mean	200µg/m ³ (18 exceedences permitted per year)	25µg/m ³
Particulate Matter (PM ₁₀)	Annual Mean	40µg/m ³	15µg/m ³
Particulate Matter (PM ₁₀)	24-hour Mean	50µg/m ³ (35 exceedences permitted per year)	45µg/m ³ (3-4 exceedences permitted per year)
Particulate Matter (PM _{2.5})	Annual Mean	10µg/m ³ (by 2040)	5µg/m ³

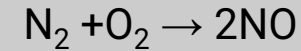
Nitrogen dioxide

Source: Combustion

Needs high temperatures and oxygen rich supply

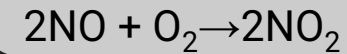
Step 1: Formation of Nitric Oxide

At high heat, nitrogen and oxygen combine to form nitric oxide



Step 2: Oxidation to Nitrogen Dioxide

Once released into the atmosphere, nitric oxide reacts quickly with more oxygen



Particulate Matter

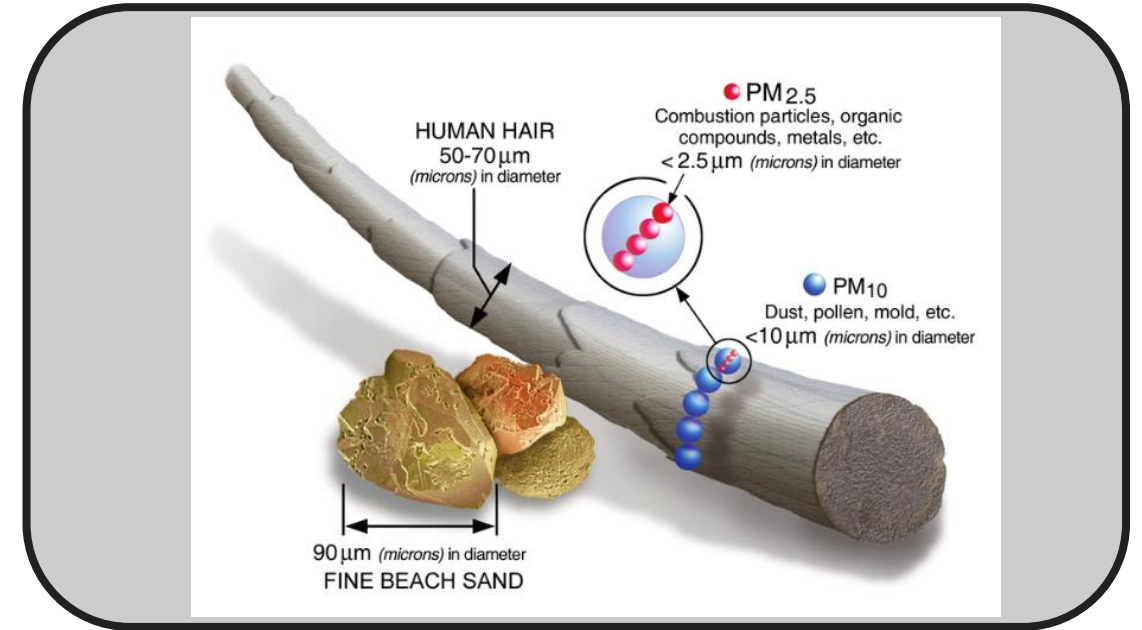
Sources:

Combustion (Transport, heating, etc)

Industry

Construction and Demolition

Natural sources (soil / sea salt, etc)

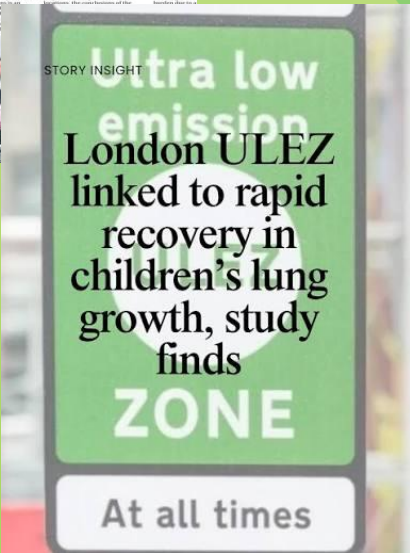
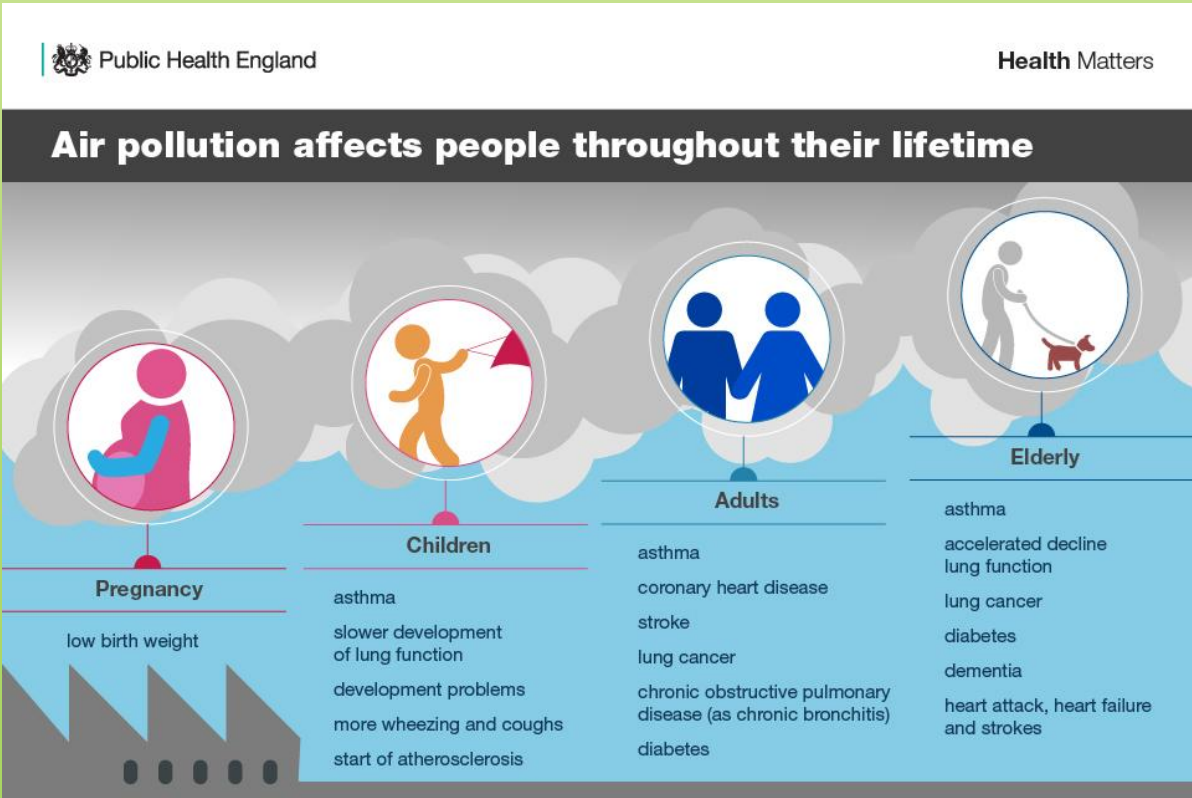


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IMPACTS OF AIR QUALITY

How does air pollution affect our health?



Air Quality in Hackney



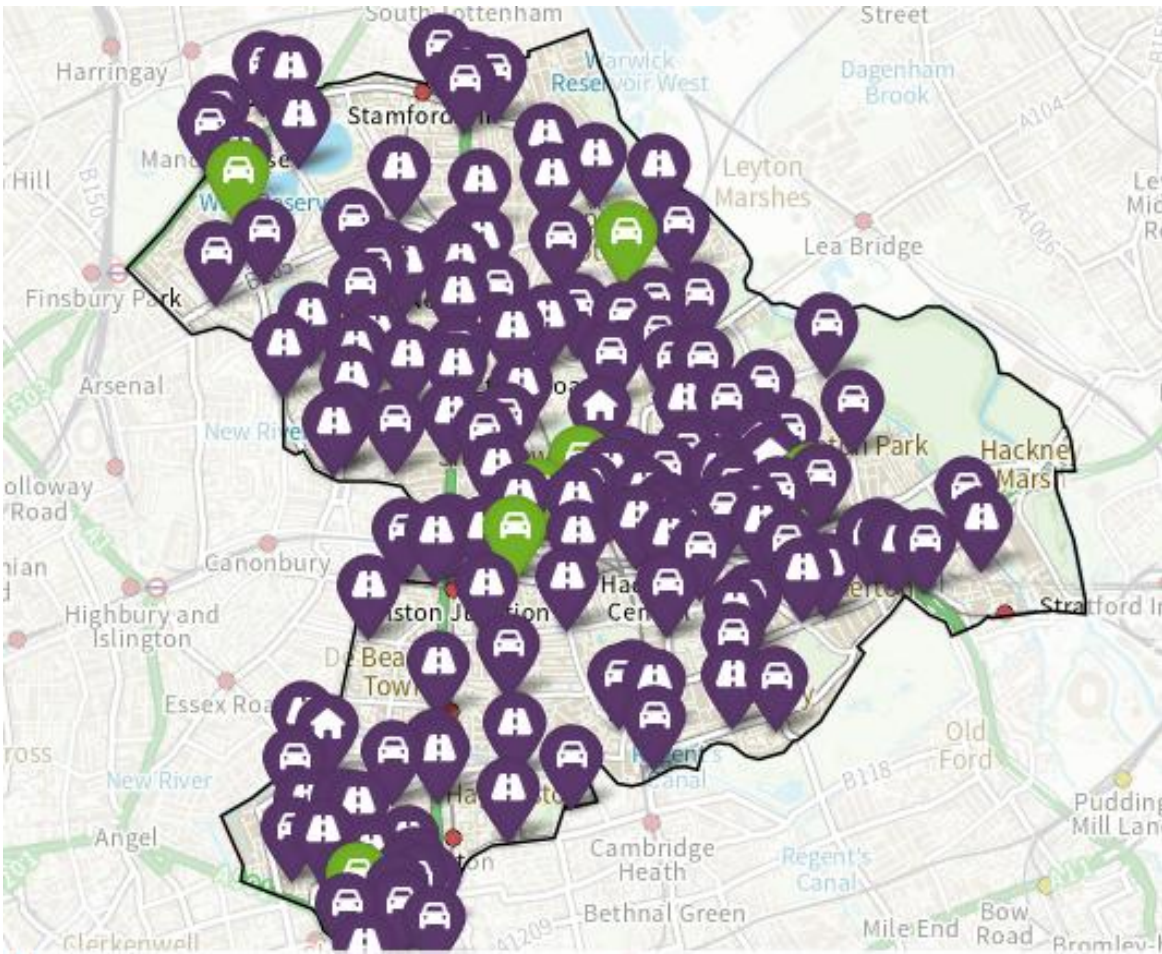
Monitoring station
(NO₂, PM₁₀ & PM_{2.5})

[Breathe London](#)
Sensor



Diffusion Tube

Air Quality in Hackney



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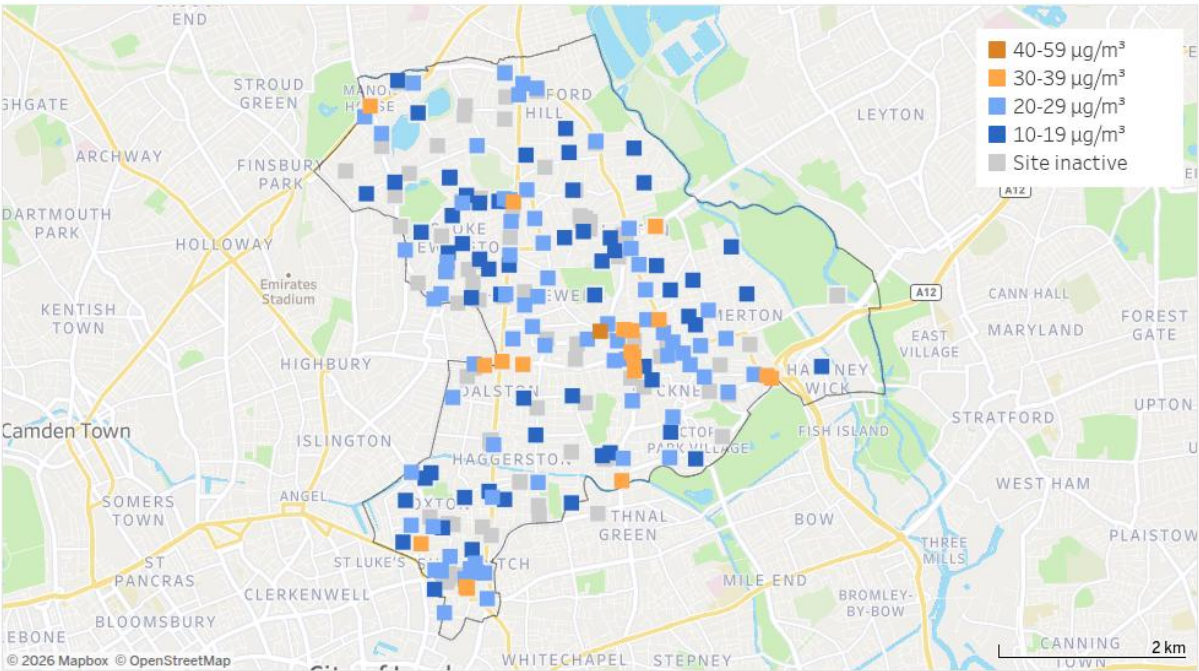
NO₂ annual mean of air quality monitoring sites in Hackney (2015-2024)

This map shows the NO₂ annual mean of all air quality monitoring sites in Hackney between 2015 and 2024.

Data from Hackney Council. Last updated November 2025.
Use the drop-down list to select a year and the evolution:

SELECT A YEAR FROM THE DROP-DOWN LIST

2024



2024	MAX NO ₂ ANNUAL MEAN (µg/m ³)	MIN NO ₂ ANNUAL MEAN (µg/m ³)
	43	14

AIR QUALITY IN HACKNEY

Trends in pollution concentrations

Figure 20. Annual Mean PM₁₀ Concentrations at Automatic Monitoring Sites

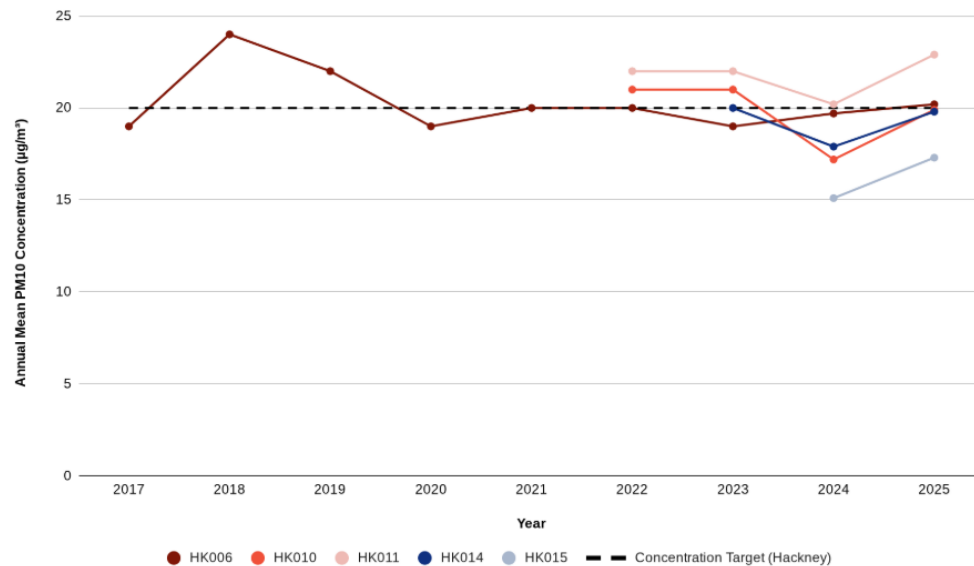
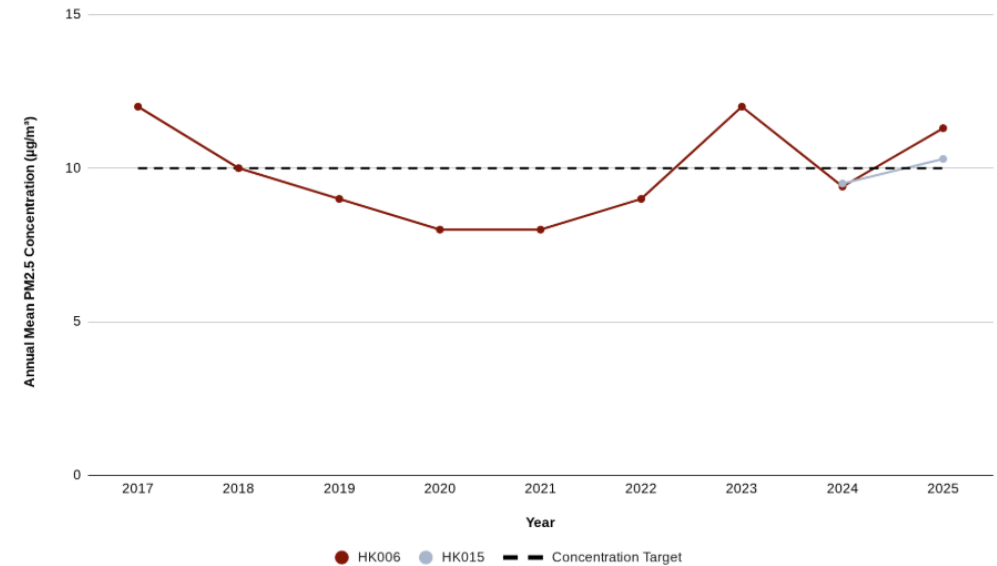


Figure 21. Annual Mean PM_{2.5} Concentrations at Automatic Monitoring Sites



PM₁₀

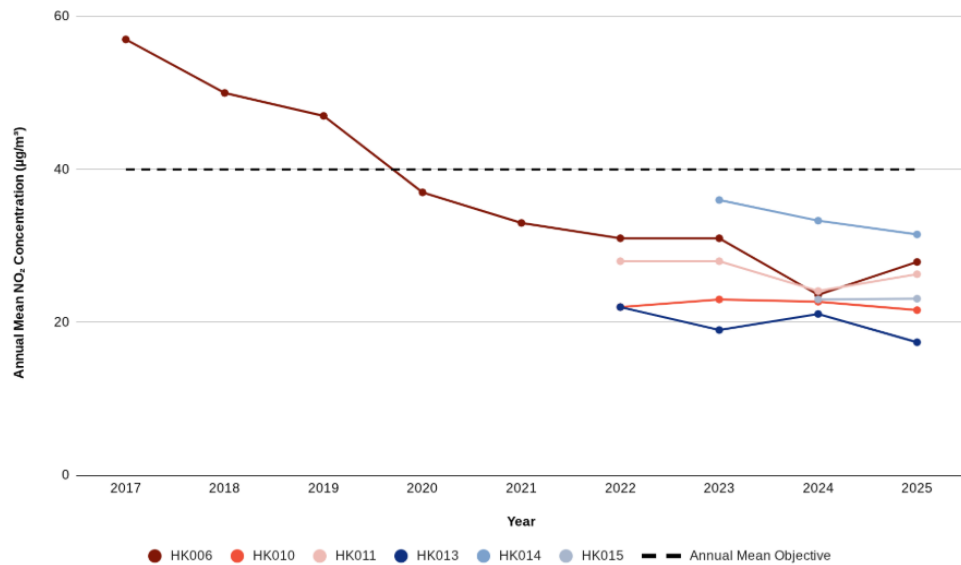
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PM_{2.5}

AIR QUALITY IN HACKNEY

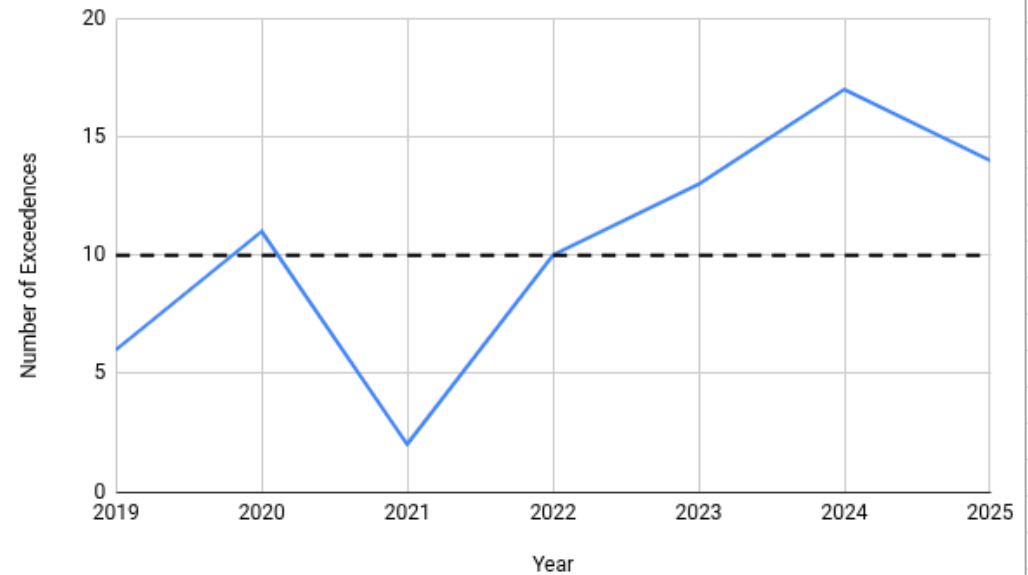
Trends in pollution concentrations

Figure 1. Annual Mean NO₂ Concentrations at Automatic Monitoring Sites



NO₂

Number of Exceedences over Years



Ozone

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IMPROVING AIR QUALITY IN HACKNEY



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IMPROVING AIR QUALITY IN HACKNEY

Low Traffic Neighbourhoods

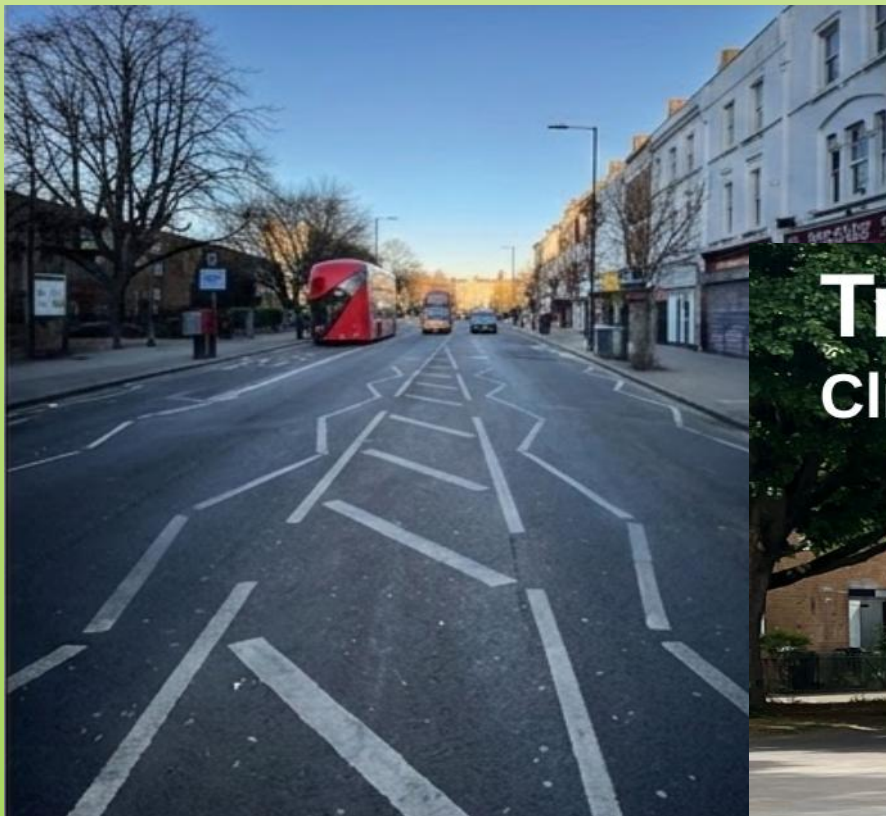
- Hackney has highest proportion of roads covered by LTNs
- Restrictions on access through e.g. planters, bus gates, cameras
- Exemptions for certain vehicles (emergency, waste, blue badge)
- 87% of journeys starting in Hackney by foot, bike or public transport
- % by car has fallen but % through traffic has remained the same



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IMPROVING AIR QUALITY IN HACKNEY

Low Traffic Neighbourhoods



Transformation of Hackney Central Climate Resilient Streets



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IMPROVING AIR QUALITY IN HACKNEY

School Streets

A timed road closure

Encourages parents and children to use sustainable modes

Aims to:

- Tackle congestion around schools
- Improve air quality in the local area
- Encourage more active travel



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IMPROVING AIR QUALITY IN HACKNEY

School Streets

The number of children cycling to school in Hackney School Streets increased by **51%**

Research showed that emissions of NO_x and PM from motor vehicles dropped by **74%** within Hackney School Streets

The average decrease in traffic levels outside of school gates in Hackney School Streets was **68%**



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School Streets Timed traffic restrictions



TOOLKIT FOR PROFESSIONALS

IMPROVING AIR QUALITY IN HACKNEY

ZERO EMISSIONS NETWORK



E-bike Switch



Car Clubs



Dr Bike



Cargo Bike Training



Cargo Bike
Maintenance Service



Cargo Bike Trial



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ZEN - decarbonising local transport

1. Expanding the cargo bike share
2. Awarding business grants
3. Reducing van deliveries
4. Building active business networks
5. Campaigning for sustainable travel
6. Air quality monitoring

**ZERO
EMISSIONS
NETWORK**

IMPROVING AIR QUALITY IN HACKNEY

Electric Vehicle Charging Infrastructure

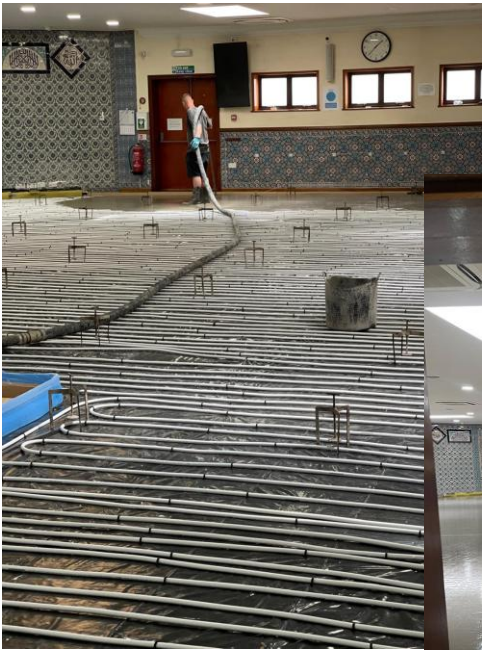
- Programme to install over 2500 charge points by 2030
- All charge points use 100% renewable energy
- All funded through private investment
- 136% increase in uptake of EVs over 5 years
- 4,156.71 tonnes of CO2 being avoided



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Renewable Energy Retrofitting Programmes



Partnering with a mosque to install underfloor heating and solar panels



3381 kg + 4834 kg
of carbon emissions
saved per year



Subsequent engagement with mosque goes on decarbonisation → Home energy visits



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Smoke Control



Clean Air Acts gave local authorities powers to create Smoke Control Areas

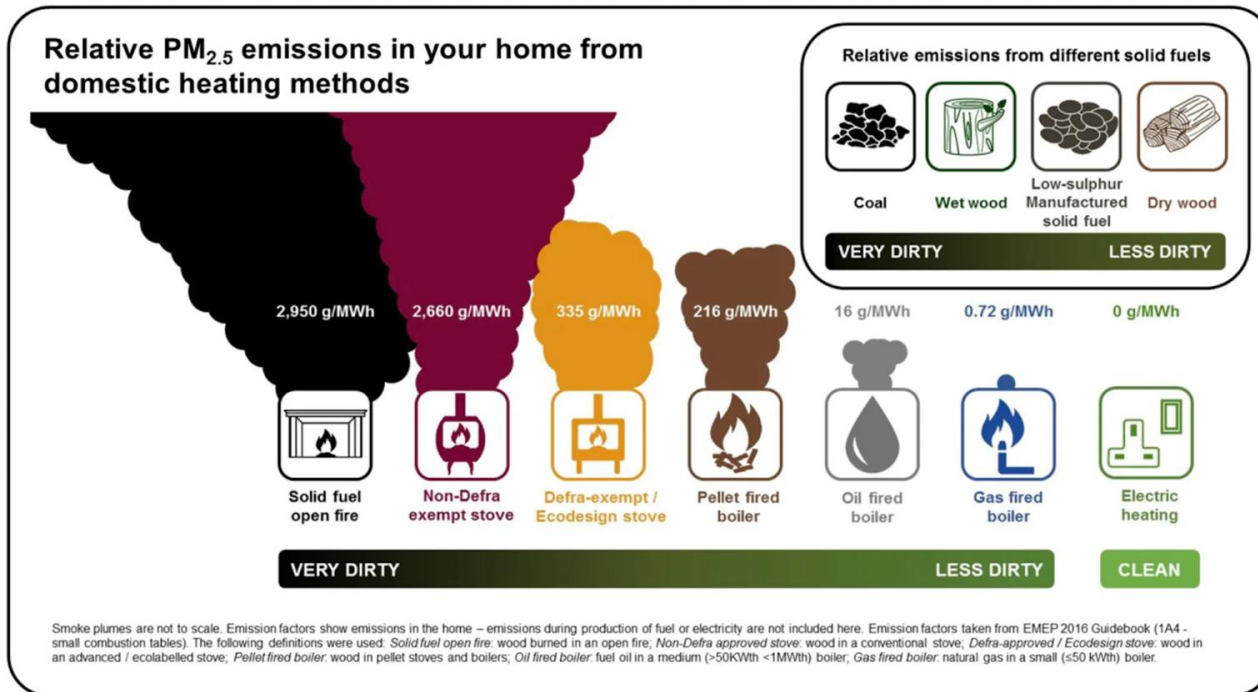
Restrictions on solid fuel burning

Compliance through ***either*** using a DEFRA- approved appliance, ***or*** using authorised fuel

Hackney had 27 Smoke Control Areas in place declared by various authorities over a number of years in the 1960s/70s

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Smoke Control



Exempt appliance emits about 8 times less PM_{2.5} compared to a non-approved stove / open fire

Coal and wet wood give rise to the highest emissions

Environment Act 2021 introduced changes: Sale of coal and wet wood is now restricted



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Smoke Control



Hackney created a new Smoke Control Order in 2025 to cover the whole borough

An Order proposing that waterways were included was published and engagement carried out

Objections were raised - categorised into 4 main themes:

- Financial costs to boaters
- Evidence of costs and benefits
- Unfairly impacts on one demographic
- Enforcement

Decision to postpone introduction and work has been undertaken to address these issues

ENGAGEMENT ON AIR QUALITY IN HACKNEY

Air Pollution impacts on people's health

Improving air quality improves health outcomes

Therefore, the actions are popular and well-supported.

Road **CLOSURES**

RESTRICTIONS on fuel

Smoke **CONTROLS**

ENFORCEMENT cameras

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ENGAGEMENT ON AIR QUALITY IN HACKNEY

EDUCATION

Schools - Assemblies & workshops

Communities - Training Champions

Healthcare practitioners -
Training for patient conversations



Air Aware

air-aware.co.uk

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ENGAGEMENT ON AIR QUALITY IN HACKNEY

COMMUNICATION

Making data available

Newsletters and social media posts

Choosing language to be positive and inclusive

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ENGAGEMENT ON AIR QUALITY IN HACKNEY

CO-DESIGN

Involvement of residents in decision making process

Workshops and citizen assemblies

You Said, We Did

Take Residents on your journey



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