



City of Westminster



# FAIRER WESTMINSTER

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## Air Quality Action Plan

Climate Action, Environment & Highways Policy Scrutiny

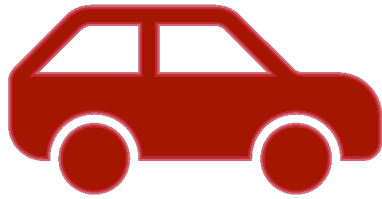
Westminster City Council

Pre-Meet / Briefing

[westminster.gov.uk/fairer-westminster](https://westminster.gov.uk/fairer-westminster)

#FairerWestminster

## Common Pollutants



Nitrogen Dioxide  
(NO<sub>2</sub>)



Particulate Matter  
(PM<sub>2.5</sub>, PM<sub>10</sub>)



Carbon Monoxide  
(CO)



Ozone  
(O<sub>3</sub>)



Sulphur Dioxide  
(SO<sub>2</sub>)

# Air Quality Action Plan 2024 – 2029

The Plan will be a document with a strategic roadmap and practical actions aimed at improving air quality within the City of Westminster.

Whilst we need to produce the plan as a statutory requirement, the purpose is to address air pollution issues comprehensively and effectively. It should also outline actions to protect public health (#2035), enhance environmental quality, and promote sustainable development.

## Outcome:

- A well-defined roadmap equipped with **actionable strategies and measures**.
- A **collaborative effort** that fosters stakeholder buy-in and support.
- A foundation for **effective implementation and ongoing monitoring** to achieve desired air quality improvements.

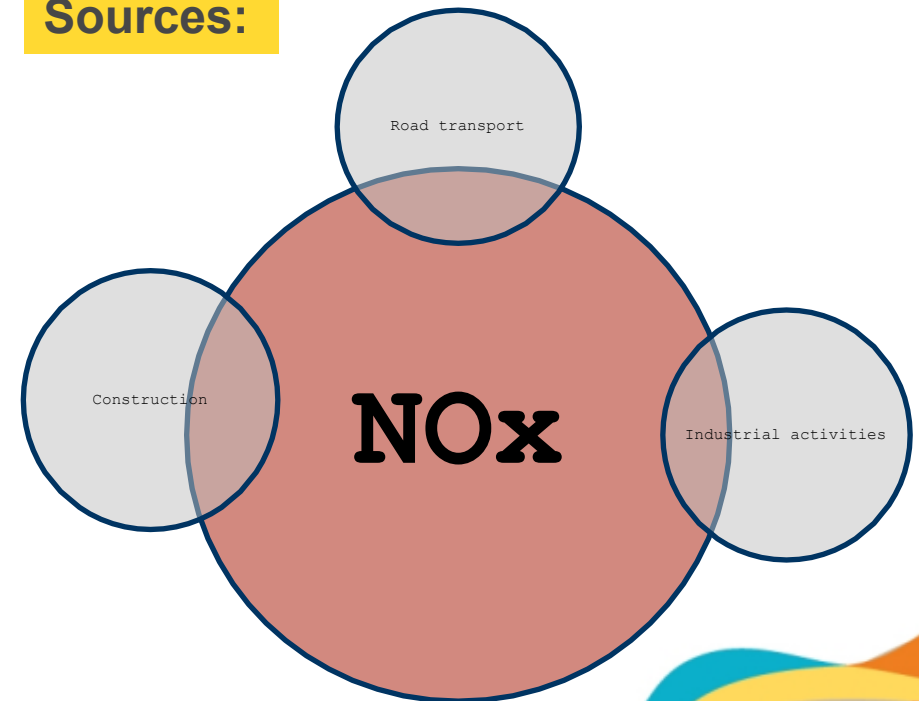
# Key sources of Pollution

## What is Nitrogen Oxide (NOx)?

**Group of gases:** Mainly from burning fossil fuels.

Forms NO2 and Ozone:	Health & Environmental Impact:
<ul style="list-style-type: none"> <li><b>NO2:</b> Created when NOx reacts with other gases:</li> <li><b>Ozone (O3):</b> Forms from Nox, harmful at ground level.</li> </ul>	<ul style="list-style-type: none"> <li>Ozone can irritate the respiratory tract, eyes, nose, and throat.</li> <li>Triggers asthma attacks.</li> <li>Ozone can damage crops and vegetation.</li> </ul>

### Sources:



# Key sources of Pollution

## What is Particulate Matter (PM or PM2.5, PM10) ?

Not a single pollutant: PM is a mix of many chemical species.

Defined by size:	Health Impact:
<ul style="list-style-type: none"> <li><b>PM10:</b> Particles 10 microns or less, inhalable into the lungs.</li> <li><b>PM2.5:</b> Fine particles 2.5 microns or less, can get deeper into the lungs.</li> </ul>	<ul style="list-style-type: none"> <li>Enters lungs and bloodstream, reaching the heart, brain, and other organs.</li> <li>Linked to conditions like COPD, asthma, and potentially dementia.</li> </ul>

### Sources

:



## WHO Guidelines

- The WHO guidelines are a set of evidence-based recommendations for air pollutant limits to protect public health. Tailored for diverse global conditions, supporting comprehensive air quality management policies.
- No safe level for major pollutants; guidelines reflect levels where increased mortality is likely.
- Updated regularly; latest in 2021 reflects increased health risks and sets lower limits.
- Not legally binding but crucial for guiding policies worldwide.
- Adherence can prevent millions of premature deaths globally.

# WHO Baselineing Study

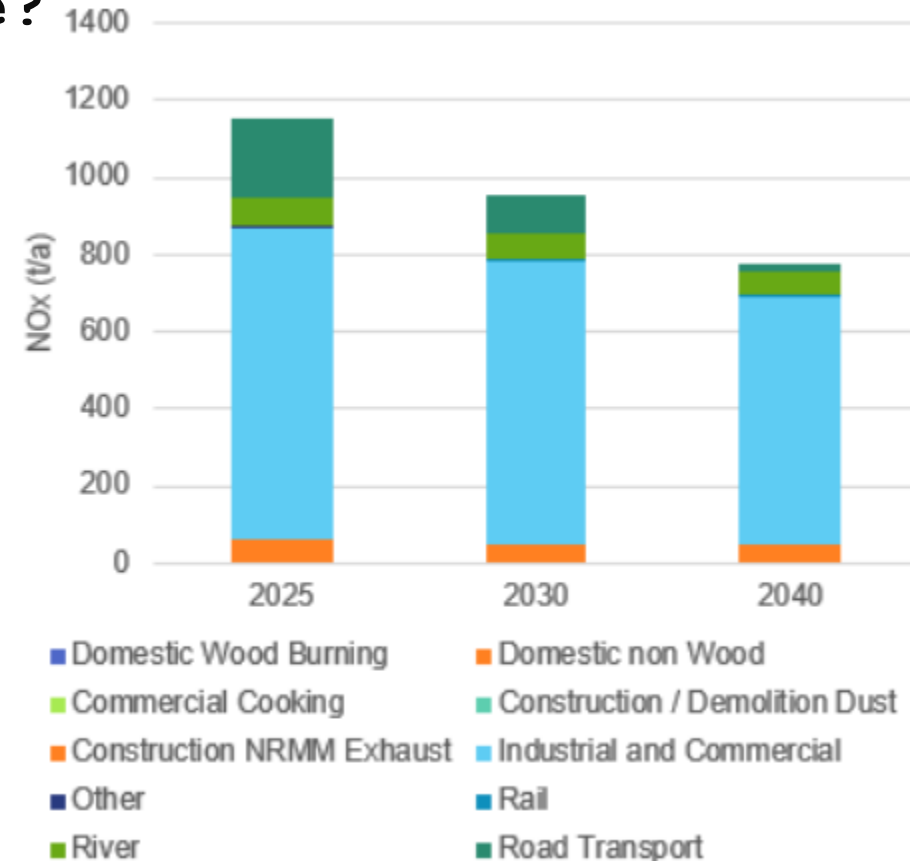
## NOx Emissions: Where Should Our Focus Lie?

### Industrial and Commercial

- 2025: Industrial and commercial activities contribute to **71%** of NOx emissions.
- 2040: This proportion rises to **82%**, highlighting its significance as the primary emission source.

### Road Transport

- 2025: Road transport accounts for **17%** of NOx emissions.
- 2040: Reduced significantly to only **3%**, indicating successful mitigation efforts in this sector.

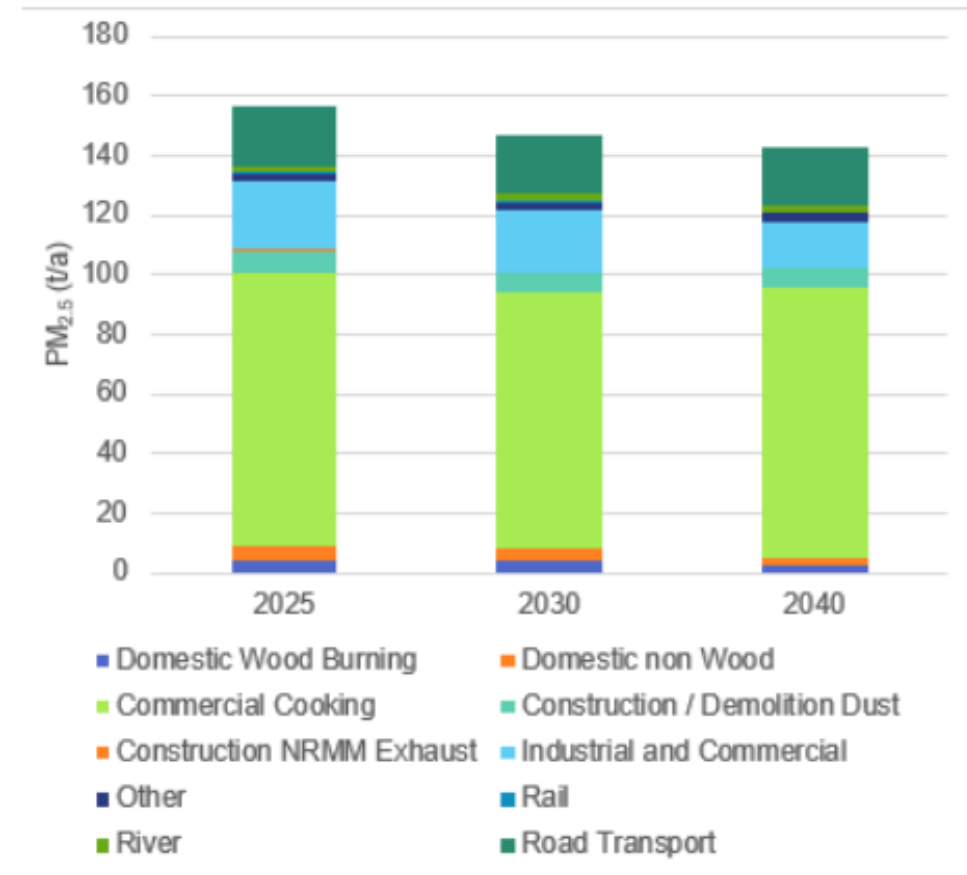


## WHO Baselineing Study

### PM2.5: Where Should Our Focus Lie?

#### Commercial Cooking

- 2025: **59%**
- 2040: Increases to **64%**





# WHO Baselineing Study

## PM10 : Where Should Our Focus Lie?

**No Single Dominant Source:** PM10 emissions come from various sectors.

**Commercial Cooking:** 33-36%

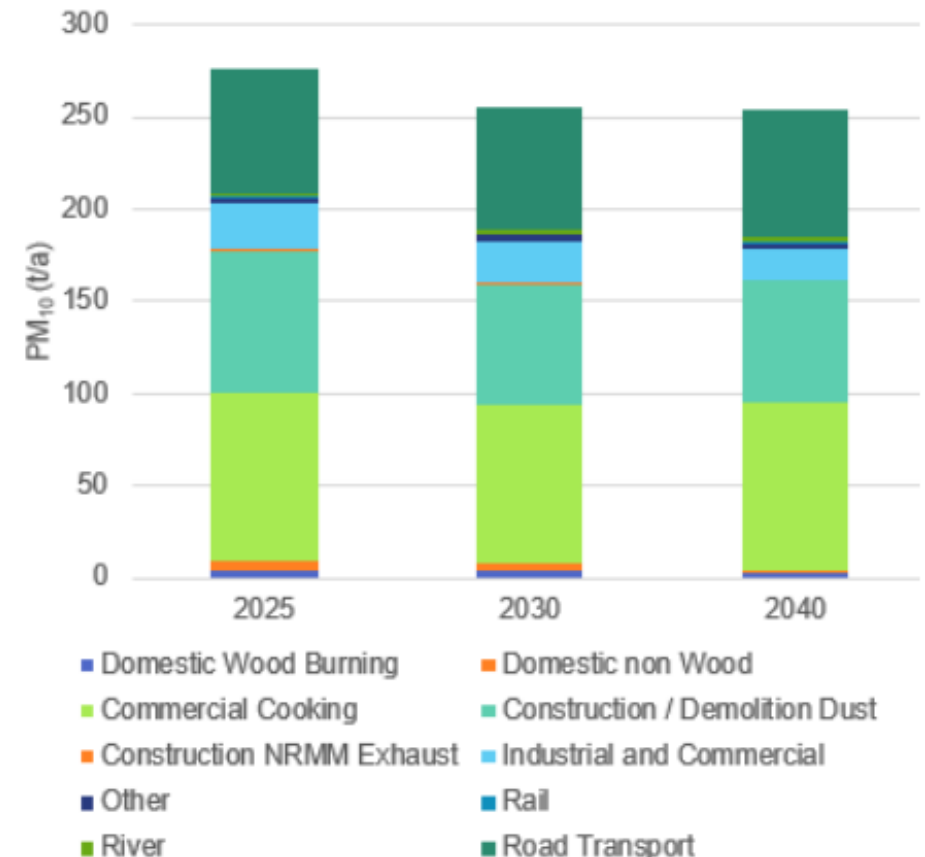
- Steady Presence: Maintains its share across the years.

**Construction/Demolition Dust:** 28-26%

- Marginal Reduction: Slight decrease observed by 2040.

**Road Transport:** 24-27%

- Incremental Rise: Expected increase in contribution by 2040.



## WHO Baselineing Study

**Even eliminating all sources within Westminster will not ensure compliance with Guidelines by 2040 for all pollutants.**

Current Status: Monitored and modelled **concentrations exceed WHO Guidelines** by a substantial margin as of 2022.

### 2040 Outlook:

- **PM10 and NO2:** Some receptors may meet Guidelines with planned policy interventions.
- **PM2.5:** No receptors expected to meet Guidelines.

Concentrations from sources outside Westminster remain high, posing challenges for compliance with WHO Guidelines by 2040.

## Key Matters for Consideration

- Do the committee members agree with the approach of re-prioritising our focus beyond primarily targeting pollution from transport sources, given our newfound understanding that industrial and commercial activities (e.g. heating and powering commercial buildings) are now the main sources of air pollution?
- Now we understand where pollution is coming from, how can we better engage and educate individuals, communities, and stakeholders to reduce personal and industrial/commercial pollution sources effectively?
- Does the committee support the planned approach for engaging with communities and stakeholders to ensure that our proposed new priority themes align with their needs and concerns?