

IMPROVING LONDON'S AIR QUALITY

Reducing emissions from Non-road Mobile Machinery

Oliver Lord, Air Quality Manager

MAYOR OF LONDON

AIR QUALITY IN LONDON

- London now meets legal limits for eight of the nine pollutants regulated by the European Commission.
- Even though we are reported compliant for Particulate Matter, it is commonly accepted there is no safe limit and further reductions are being sought to protect human health.
- NO₂ remains a serious challenge. In some places London exceeds the limits by a factor of three. The Government has a plan to meet legal limits in London by 2025, which will require further action over the next ten years.

AIR QUALITY IN LONDON

EveningStandard.

News Football Going Out Lifestyle Showbiz Homes & Property Give to GOSH



News > London

'Oxford Street pollution levels breached EU annual limit just four days into 2015'

NICHOLAS CECIL | Tuesday 6 January 2015 |



AIR QUALITY IN LONDON

Evening Standard. News Football Going Out Lifestyle Showbiz Homes & Property Give to GOSH   

News > London

Putney High Street breaches annual diesel pollution limit eight days in to 2016

JONATHAN PRYNN | 4 hours ago | [12 comments](#)



AIR QUALITY IN LONDON

Even

Pigeon Air Patrol @PigeonAir · Mar 16

Want to find out how toxic your air is? Ask me. A pigeon. Tweet just your London area to @PigeonAir #PigeonAir



443 588

The image shows a tweet from 'Pigeon Air Patrol' (@PigeonAir) dated March 16. The tweet text asks users to tweet their London area to @PigeonAir with the hashtag #PigeonAir to find out how toxic the air is. Below the text is a photograph of a pigeon wearing a black vest with a green logo. The tweet interface shows 443 retweets and 588 likes. The background includes a partial 'Even' logo on the left and navigation icons on the right.

HEALTH IMPACTS

- London is the first city to calculate the health impacts associated with NO₂
- This new study shows that in 2010 there was the equivalent of up to 5,900 deaths across London associated with NO₂ long term exposure (broken down on borough-by-borough basis in the report).
- The PM_{2.5} and NO₂ figures can be combined to create a total figure of up to 9,400 equivalent deaths in 2010.
- The NO₂ health effects have also been calculated using new methods which mean they are subject to greater uncertainty than the PM_{2.5} health effects.

HEALTH IMPACTS

- London is the first city to calculate the health impacts associated with air pollution.

- This report is equivalent to the health impacts associated with air pollution in other major European cities.

- The report found that the total health impacts of air pollution in London are equivalent to 10,000 premature deaths per year.

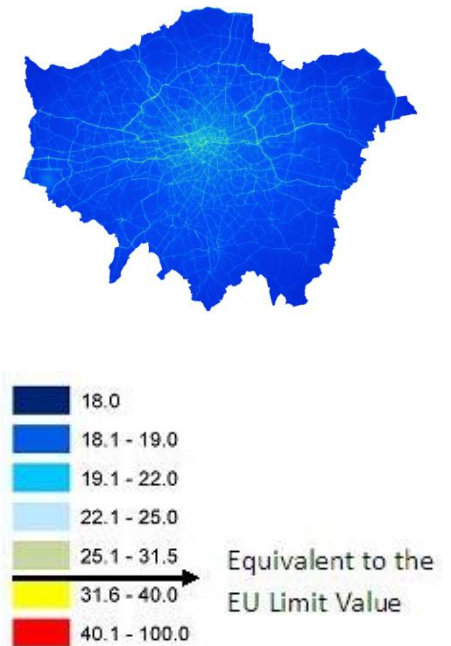
- The report also found that the health impacts of air pollution are greater than the health impacts of climate change, with some uncertainty about the PM_{2.5} health effects.



- The report also found that the health impacts of air pollution are greater than the health impacts of climate change, with some uncertainty about the PM_{2.5} health effects.

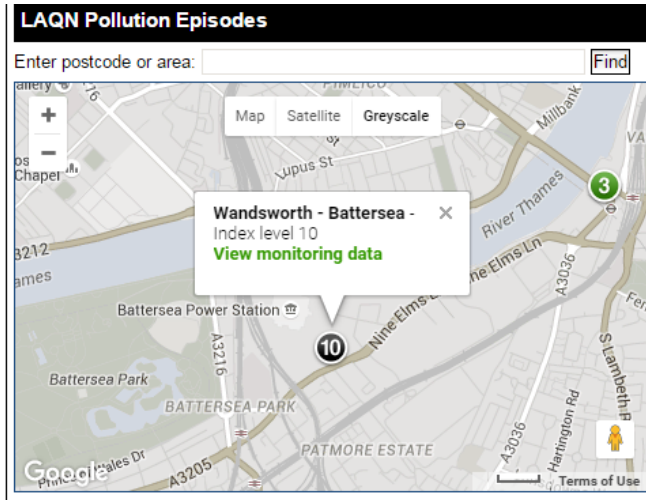
PARTICULATE MATTER

- London has met legal requirements for PM_{10} since 2011. However, it remains a localised issue requiring a targeted approach.

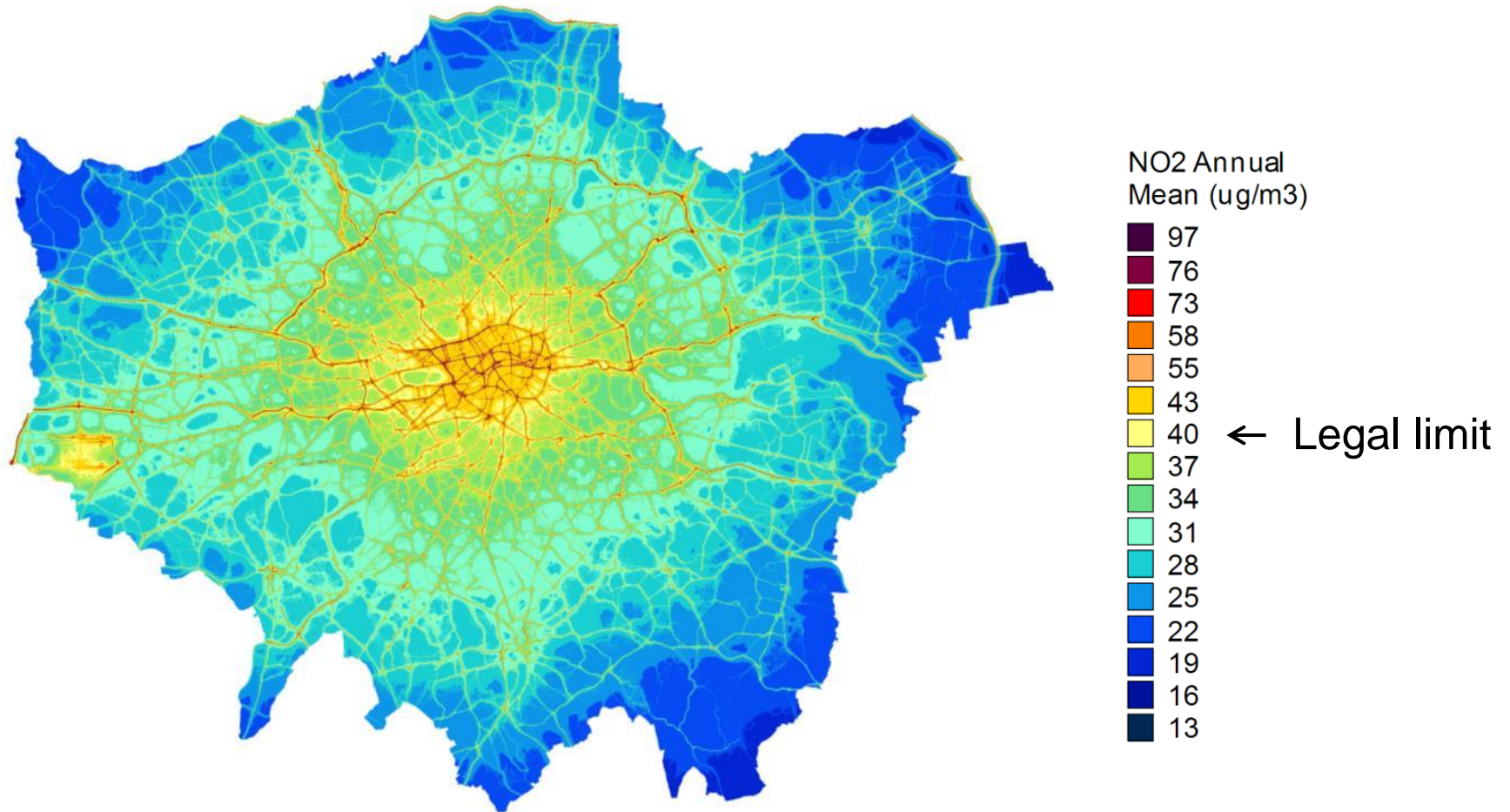


PARTICULATE MATTER

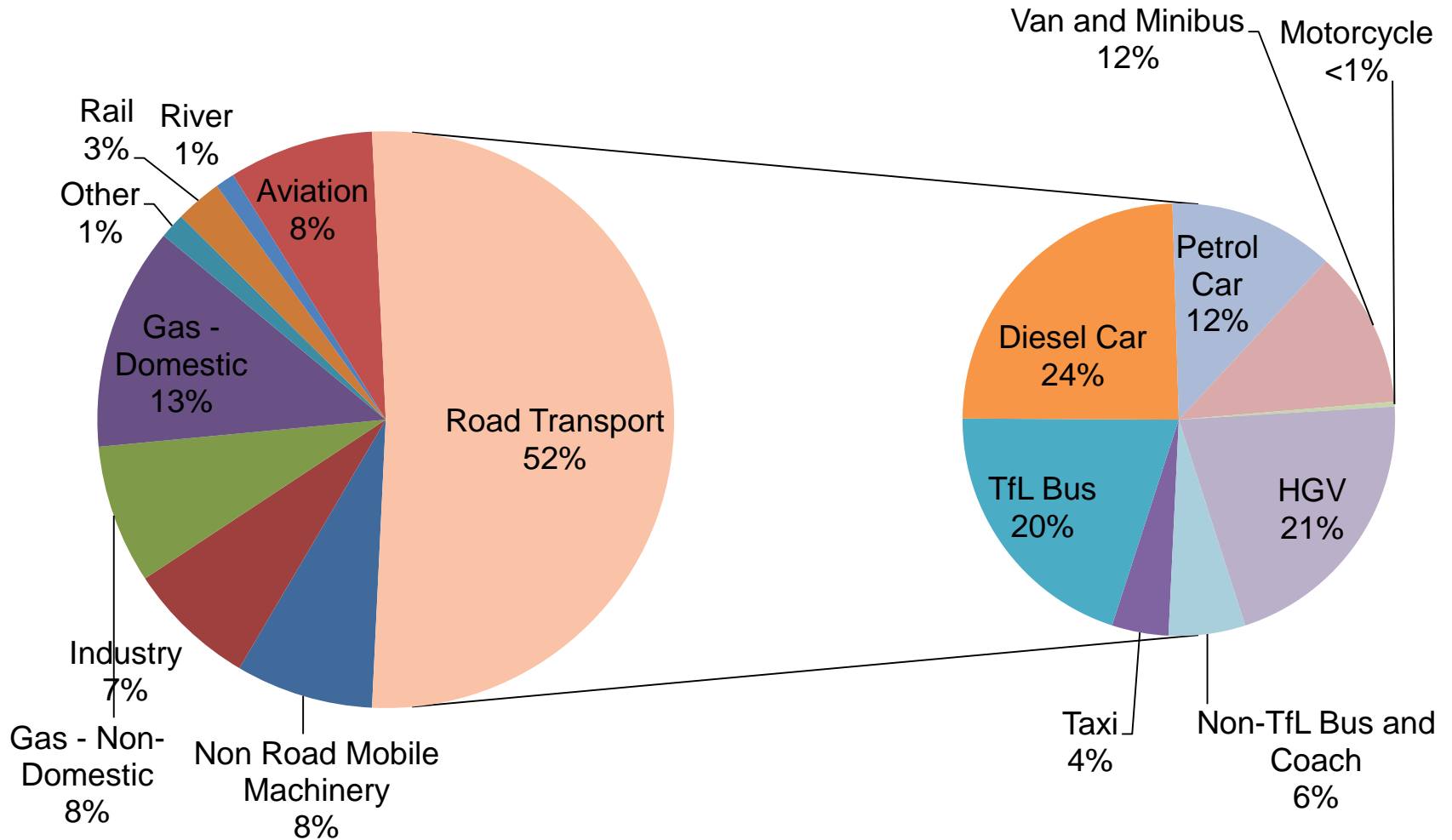
MARCH 2016



NO₂ CHALLENGE (2013)

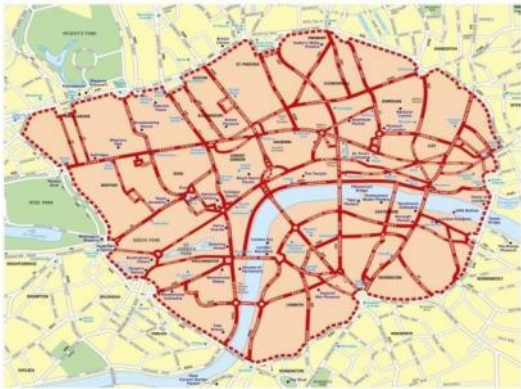


NO_x EMISSIONS IN 2013



TRANSPORT MEASURES

Congestion charge



Low Emission Zone



Buses



Taxis



Cycling



Electric cars



NON-TRANSPORT MEASURES

Air Quality Neutral



Retrofit



Construction



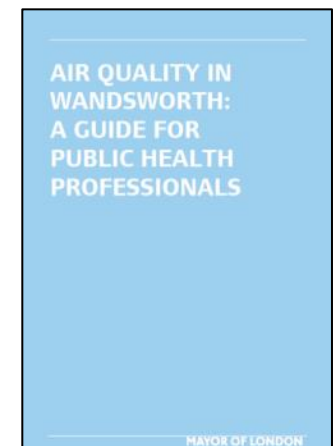
Local



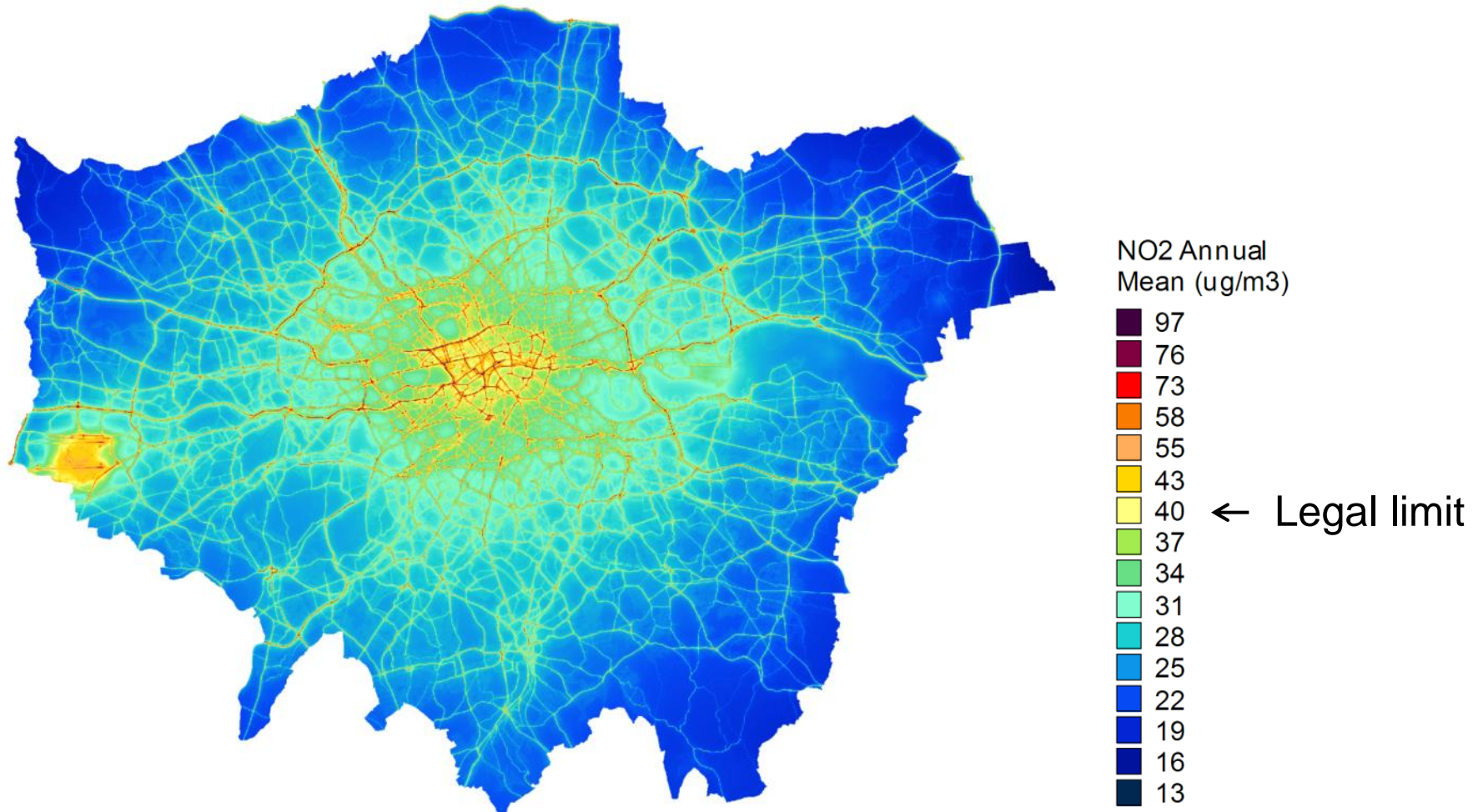
Mayor's AQ Fund



Health

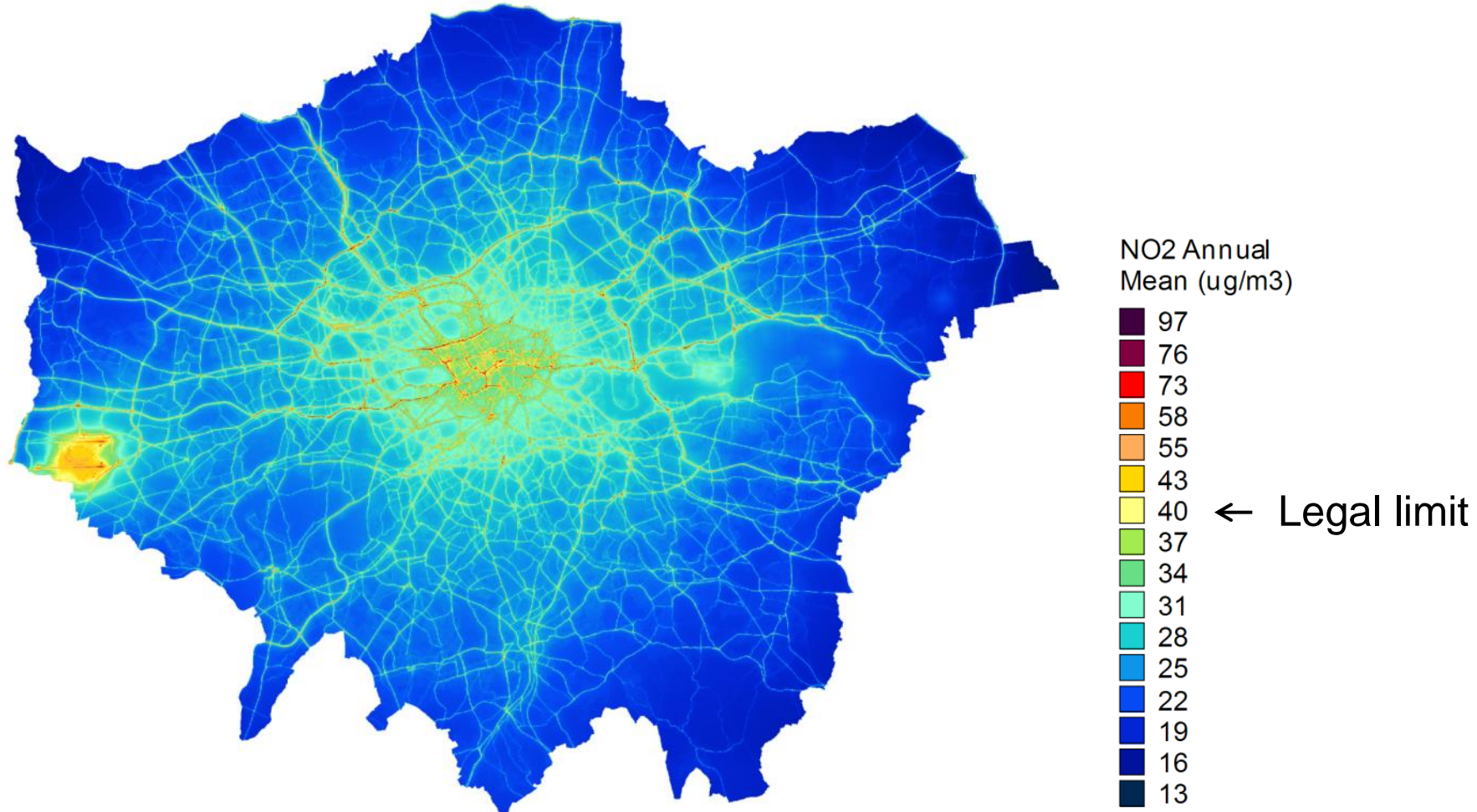


NO₂ CHALLENGE (2020)



London Atmospheric Emissions Inventory (2010)

NO₂ CHALLENGE (2020 + ULTRA LOW EMISSION ZONE)



London Atmospheric Emissions Inventory (2010)

NON-ROAD MOBILE MACHINERY (NRMM) SPG

- We have published an SPG to support the policies in the London Plan, with guidance on:
 - the Air Quality Statement;
 - the identification of the potential scale of dust emissions for each stage of work;
 - the identification of the level of risk due to the scale of dust emissions
 - best practice methods for controlling dust on-site and to prevent trackout
 - recommendations for monitoring
 - emission standards for non-road mobile machinery



THE CONTROL OF DUST AND EMISSIONS DURING CONSTRUCTION AND DEMOLITION
SUPPLEMENTARY PLANNING GUIDANCE

JULY 2014

LONDON PLAN 2011
IMPLEMENTATION FRAMEWORK

MAYOR OF LONDON

NRMM EMISSION STANDARDS

- All NRMM with a power of between 37KW and 560KW must conform with new standards as
- Part of a planning requirement for developments to keep an inventory of all NRMM used at the site.



The screenshot displays the NRMM website interface. At the top left, the NRMM logo (three orange chevrons) is followed by the text "NRMM non-road mobile machinery". At the top right, it says "SUPPORTED BY MAYOR OF LONDON". A blue banner below the header reads "London's 'Low Emission Zone' for non-road mobile machinery". The main content area features a photograph of two yellow Keltbray excavators at a construction site. Below the photo is a navigation menu with the following items:

- NRMM Register
 - How to use the NRMM register
 - How to read engine plates
 - NRMM Exemption policy
 - Retrofit technology
 - Local Authority use
- Does this apply to me?
 - Non Road Mobile Machinery (video thumbnail)

At the bottom left, there is a link "Not sure wh...". A large white box at the bottom center contains the website address www.nrmm.london.

NRMM POLICY COMMITTEE

- Greater London Authority / Transport for London
- Construction Plant-hire Association
- The Society of Motor Manufacturers and Traders Limited
- Energy Saving Trust
- Environmental Industries Commission
- AMEC Foster Wheeler
- Kings College London
- Construction Equipment Association
- Association of Manufacturers of Power Generating Systems
- Crossrail & HS2 Limited (*advisory role*)

NRMM EMISSION STANDARDS

For construction projects active after September 2015

- Major developments in Greater London, NRMM will need to meet Stage IIIA
- All developments in Central Activity Zone or Canary Wharf, NRMM will need to meet Stage IIIB

For construction projects active after September 2020

- All developments in Greater London, NRMM will need to meet Stage IIIB
- All developments in the Central Activity Zone or Canary Wharf, NRMM will need to meet Stage IV

NRMM ENFORCEMENT

- An inventory of all NRMM plant should be kept on-site stating the emission limits for all equipment – this is in effect the ‘NRMM register’.
- Local planning authorities are responsible for enforcement through the planning process. Compliance should be secured as a condition and/or s106 agreement.
- We appreciate developers may not know what equipment will be required at planning application stage. Therefore, Air Quality Dust Risk Assessments (AQDRA) should include a written statement of their commitment for the purposes of monitoring and enforcement.

NRMM ENFORCEMENT

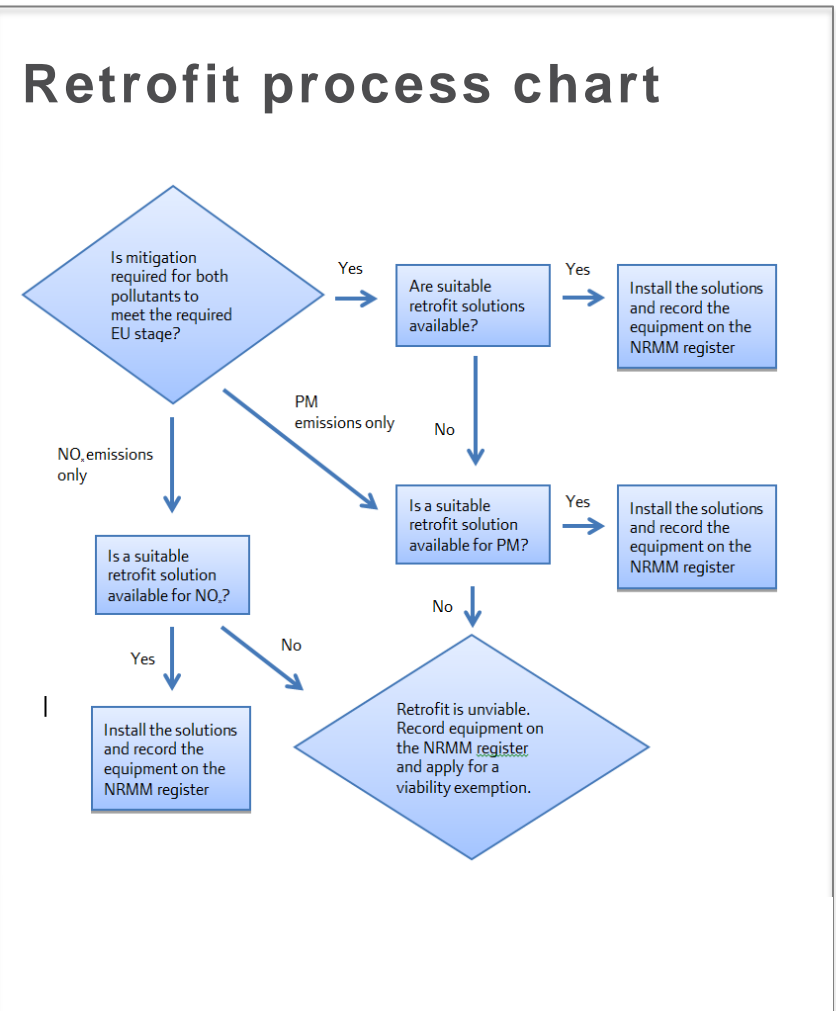
- We want to include some reporting on NRMM as part of the new London Local Air Quality Management reporting process (2016/17 onwards).
- We will work with the Considerate Constructors Scheme to integrate this policy as part of their audit activities at the construction sites of their members.
- We are talking to Government about how we can strengthen the Mayor's powers to provide more enforcement opportunities (eg penalty fines) and seeking additional funds to help with resourcing (similar to MAQF funding).

NRMM EXEMPTIONS

Exemption category	Description	Exemption period
Block	The type of NRMM plant is not currently manufactured at the EU stage stated in the SPG or there is an insufficient quantity of compliant equipment in the UK supply chain and retrofit is unviable.	Until 1 September 2018
Viability	The NRMM plant is not currently manufactured to meet the EU stage as stated in the SPG or there is an insufficient quantity of compliant plant in the UK supply chain for the task, however, it meets the next best available EU stage <u>and retrofit is unviable, following robust consideration.</u>	12 months from date of approval
Short-term	The NRMM plant is on site for a period of no greater than 30 days to account for a range of potential circumstances where equipment is urgently required or for a very short period.	30 calendar days from date of registration

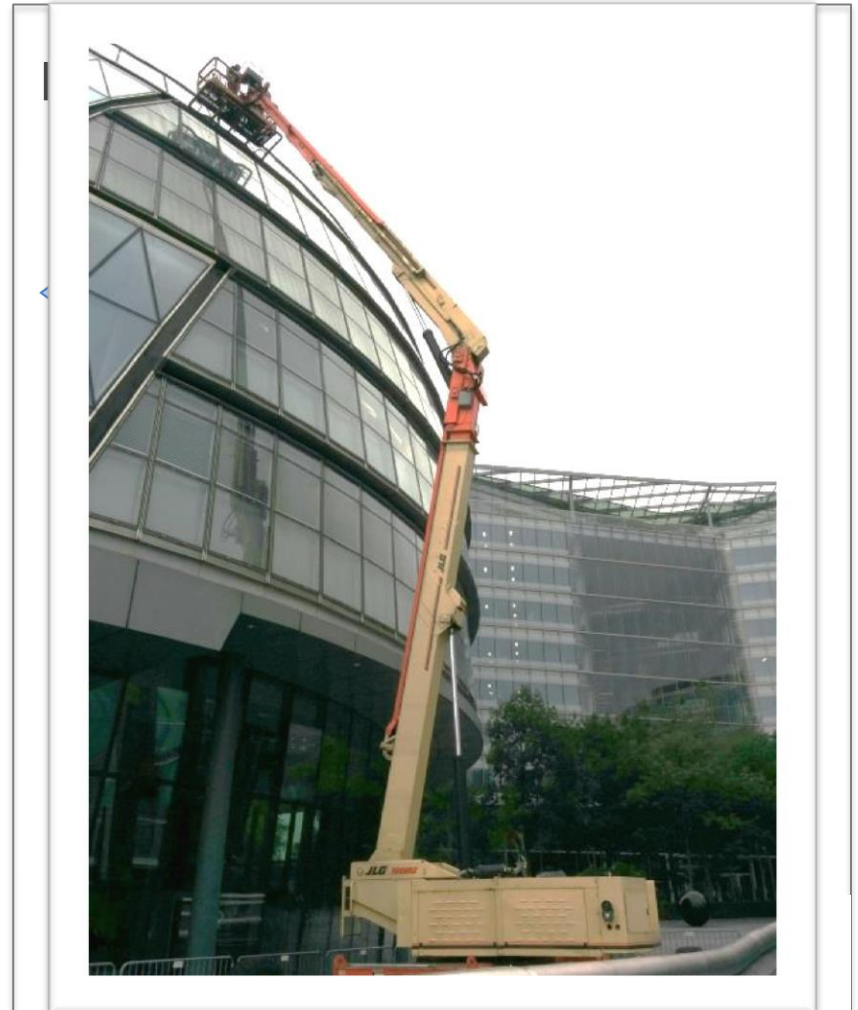
NRMM RETROFIT

- Only retrofit systems produced by manufacturers registered with the Energy Saving Trust (EST) will be eligible for consideration.
- When a company has demonstrated compliance, it is eligible to use the EST Endorsed Product mark on its product and marketing literature.



NRMM RETROFIT

- Only retrofit systems produced by manufacturers registered with the Energy Saving Trust (EST) will be eligible for consideration.
- When a company has demonstrated compliance, it is eligible to use the EST Endorsed Product mark on its product and marketing literature.



NRMM EXEMPTIONS

- Applications for an exemption must be submitted to the GLA via the NRMM register. This is an automated process. We welcome feedback on how this process works and suggested improvements.
- Exemption requests will be reviewed by the GLA within 10 working days. The NRMM policy committee will provide advice and support as required.
- The GLA's decision is final. If an application is rejected then a grace period of five working days will apply, from date of notification, whereby the NRMM plant must then be removed from the site.



Thank you

Oliver Lord
GLA Air Quality Manager (*interim*)

oliver.lord@london.gov.uk