

# Breathing it in - GM Low Emissions Strategy

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# Who we are

**Transport for Greater Manchester** oversees transport and travel across Greater Manchester

Multi modal responsibilities:

- Metrolink
- Highways
- Cycling and active travel

A growing role in relation to:

- Bus
- Rail





# Growing Urban regions

- 50% of World Population lives in a city
- Cities occupy 2% of worlds geography
- 2010-2050: Urban population expected to double
- UK population grew by 7.5% over the last decade, with the GM population predicted to grow to 3 million by 2037



# Growing Urban regions

- Population is directly linked to air quality
- How do we manage air quality and improve economic performance with a backdrop of continued population growth?



# Issues

- Demand for travel likely to increase significantly
  - Air Quality is a significant problem
    - EU NO<sub>2</sub> limits are being exceeded
    - PM<sub>10</sub> targets are being met but particulates are still a concern due to health impacts
  - Around 6% of deaths in GM attributed to air quality
  - Cites must be allowed to grow – conflict between economic objectives (local and national) and air quality issues
  - We need to manage the air quality problem!
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# Low emissions strategy – an integrated approach

Greater Manchester and TFGM are producing integrated climate change and low emissions strategies (LES).

- Problems and solutions with various emissions are often interlinked
  - Prioritisation of investment in actions with greatest impact, both in the short and long term
  - Avoiding counterproductive action – e.g. incentivising diesel vehicles
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# The aims of this strategy

- Support the UK Government in meeting all EU thresholds for key pollutants at the earliest date;
  - Contribute to reducing Greater Manchester's carbon footprint, in line with the Greater Manchester Climate Change Strategy; and
  - Reduce air pollution as a contributor to ill-health in Greater Manchester.
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# The aims of this strategy

- The Low Emission Strategy aims to identify priority actions which can be developed in more detail and included not only in the Climate Change Implementation Plan and the Air Quality Action Plan but in the Local Transport Plan (LTP)
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# Emissions

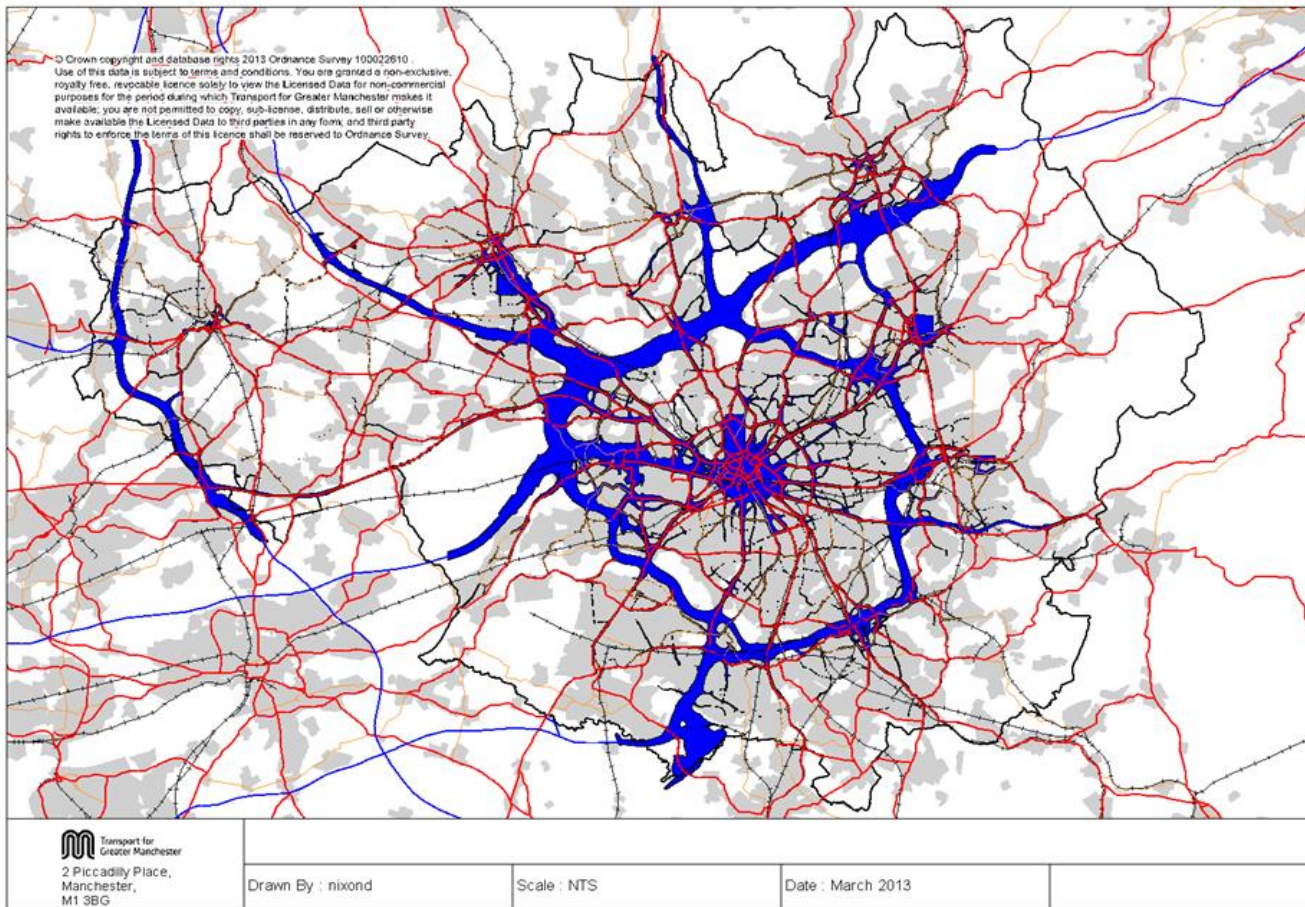
In Greater Manchester road transport contributes

- 75% of emissions of nitrogen oxides
- 81% of particulates.
- 32% of carbon dioxide emissions.



# Scale of the problem

Greater Manchester is one of a number of major UK conurbations where NO<sub>2</sub> limits are exceeded.



# Business as Usual

Fleet- weighted emission factors on all UK roads for NO<sub>x</sub>, 2005-2030)g km<sup>-1</sup> (Source: derived from Defra emission factors by Clean Air Thinking, 2014 )

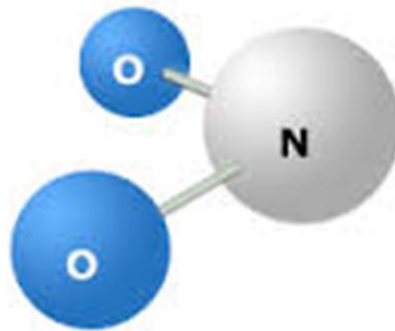
Vehicle class	2005	2010	2015	2020	2025	2030
Artic HGVs	7.10	4.50	1.51	0.35	0.24	0.23
Rigid HGVs	5.08	3.88	2.07	0.63	0.27	0.23
Diesel LGVs	1.14	0.94	0.96	0.57	0.43	0.38
Diesel cars	0.77	0.68	0.67	0.63	0.45	0.42
Petrol cars	0.66	0.25	0.10	0.06	0.06	0.06

# Existing Transport Measures

- Changing travel behaviour;
  - Managing emissions;
  - Greening vehicle fleets; and
  - Awareness Raising.
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## Future Focus

- Given the need to meet EU limits for NO<sub>2</sub> as soon as possible, the short-term focus will need to be on NO<sub>2</sub>.



- Delivery of the measures will require commitment from a range of organisations: TfGM, the Greater Manchester District Councils, the health sector, Highways England, public transport and fleet operators, the Government, motor manufacturers and other private sector organisations.
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# Ultra Low Emission Vehicles (ULEV)

- The greatest impact on emissions will be from accelerating the replacement of older vehicles
- Already 200 publicly available charge points – more needed??
- LPG and hydrogen.
- Increasing ULEV in fleets
- Work with local authorities to set stricter emission standards for taxis





# Buses

- Green Bus Fund
- Upgrade through a NOx Abatement Retrofit
- Local Authority Contracts
- TfGM have introduced a voluntary bus operator's code of conduct
- Set minimum standards for bus vehicles using the Cross-city Bus Infrastructure and future bus priority schemes





# Oxford Road



# Key Oxford Road changes

- **One mile long**

Bus, hackney carriage (taxi), cycle and emergency vehicles **only** section between Hathersage Road and Grosvenor Street from 6am until 9pm, 7 days a week

- **‘Dutch-style’ cycle lanes**

Links to the existing cycle network and improved pedestrian crossing facilities

- **Hospital Boulevard** has been designed with regular bus services at the heart of the hospital – new services from Leigh/Atherton/Tyldesley and the 18 service from Middleton will terminate on the Boulevard

- Facilitate an enhancement in **quality of the bus services** and improve disabled access provision to and from the buses

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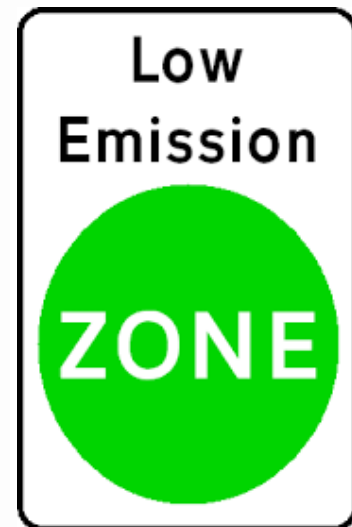
# Heavy Goods Vehicles

- Vehicle replacement cycles (5-7 years) mean emissions from HGVs should fall significantly by 2020
- Urban Distribution Centres (UDC) & Urban Consolidation Centres (UCC).
- Delivery Service Plan Toolkit (DSP)
- Fleet recognition schemes



# Low Emission Zones

- Politically sensitive, so tend to focus on the oldest commercial vehicles
- For significant impact on NO<sub>x</sub>, would need to restrict entry to Euro VI or zero emission vehicles
- How to implement without damaging economy?
  - Impact on smaller businesses
  - Impact on bus network
- Cost of introduction/running costs
- Balance the above against the benefits:
  - Improved health
  - Improved city centre environments (workers, residents and visitors)
  - Improved perception of cities (investors, visitors)



# Cycling

- Improve Cycling safety
- Improving and introducing cycle lanes
- New segregated cycle paths (Metro & Busway)
- Trials of carrying cycles on public transport
- Public hire facilities



# Conclusion

- Need to improve air quality without damage to city economies
  - Local authorities can set a policy framework, but have limited budgets to implement measures
  - Cleaner vehicles are the key
  - Need to work with operators, vehicle industry to identify effective ways of accelerating ULEV
  - Major urban areas like GM offer potential to implement measures at scale/act as exemplars
  - Government ULEV schemes represent a major opportunity
  - The package of interventions is set out in the Air Quality Action Plan and GM Climate Change Implementation Plan.
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