

NO₂ Approach to time extension

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Summary

- Background
- Extent and nature of challenge
 - Source apportionment
 - Distribution across the UK
 - Local and regional features
- Development of options and measures
- Stakeholders and coordination
- Timetable to deliver time extension notification to EU by Summer 2010

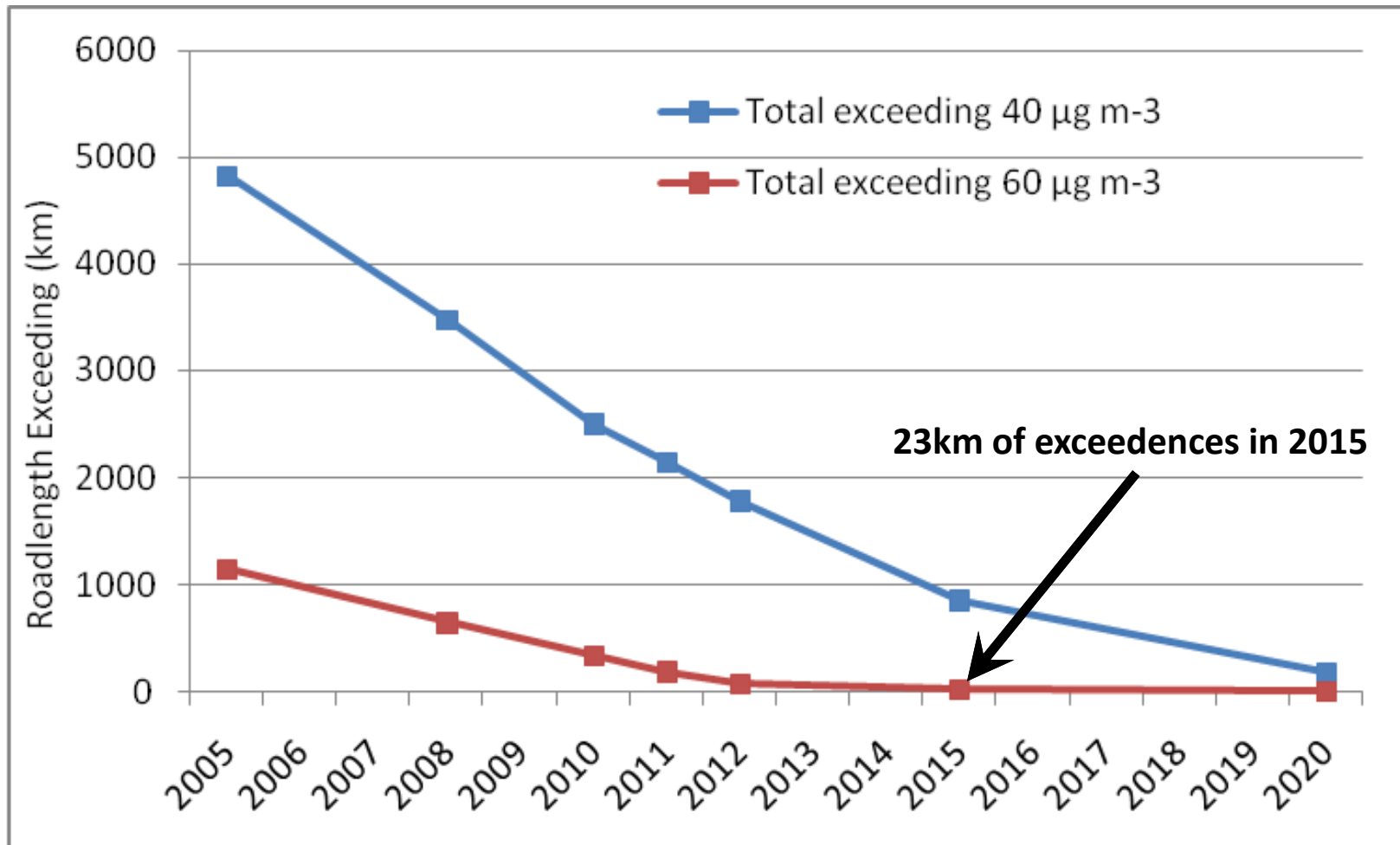
Background

- Directive 2008/50/EC adopted June 2008 Must be implemented by June 2010.
- Allows Member States to apply for extension of limit value deadline for PM₁₀, NO₂ and Benzene
- UK is finalising its application on PM10 and will submit imminently
- Compliance deadline for NO₂ is 2010 and extension is available up to 2015
- Must demonstrate a robust case to obtain extension
- Most major member states will need to apply and are expected to apply over the next year/18mths

UK Current Position on NO₂

- Currently have exceedences along 3,500km of busy roads across UK
- On current measures we expect about 850km of exceedences along busy roads in major urban areas in 2015

Exceedences (km of road length)



Year

Road length exceeding (km)		Total assessed	2005	2008	2010	2011	2012	2015	2020
>40	London	1891	1599	1373	1117	969	792	520	174
	Rest of England	9645	2903	1909	1286	1089	928	313	2
	Scotland	1096	188	105	56	49	38	8	0
	Wales	647	63	43	28	24	17	4	0
	Northern Ireland	601	71	45	9	5	4	4	0
	Total	13880	4823	3475	2496	2135	1779	849	176
>60	London	1891	587	360	213	149	70	23	4
	Rest of England	9645	525	270	116	32	4	0	0
	Scotland	1096	19	8	1	1	1	0	0
	Wales	647	6	1	1	1	0	0	0
	Northern Ireland	601	4	4	0	0	0	0	0
	Total	13880	1141	643	331	184	75	23	4

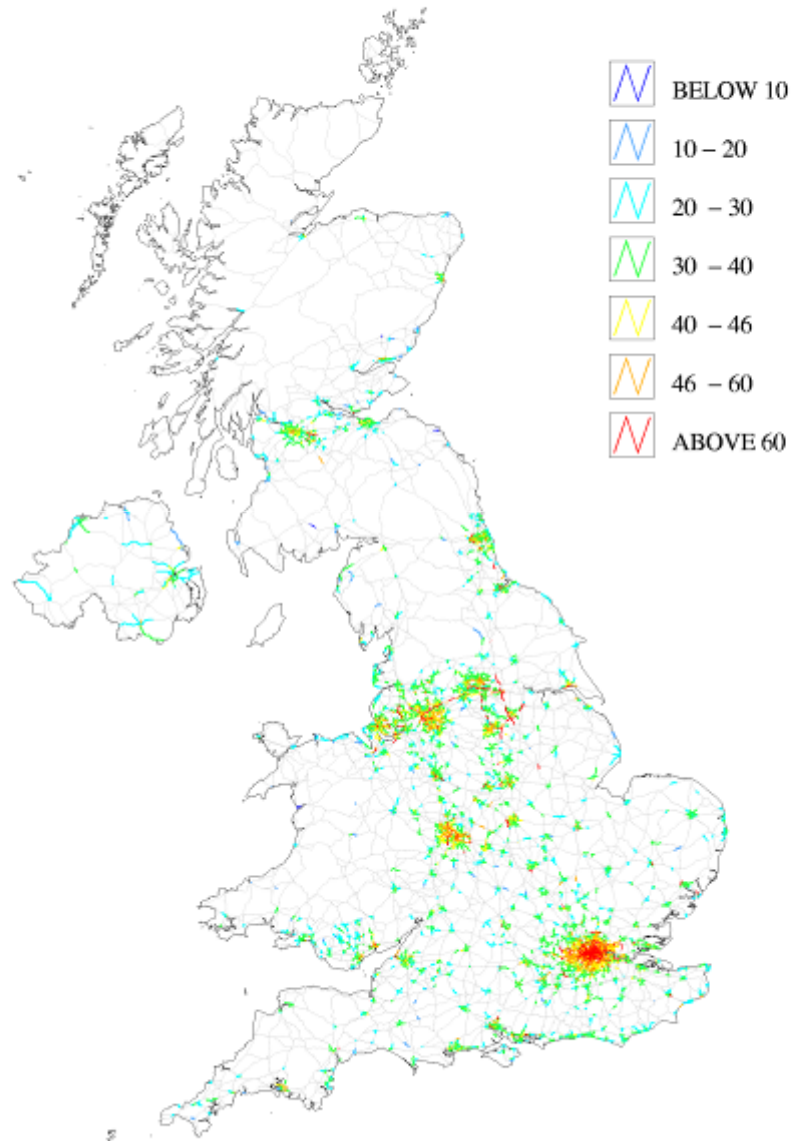
percentage >40

34.75%	25.04%	17.99%	15.38%	12.82%	6.12%	1.27%
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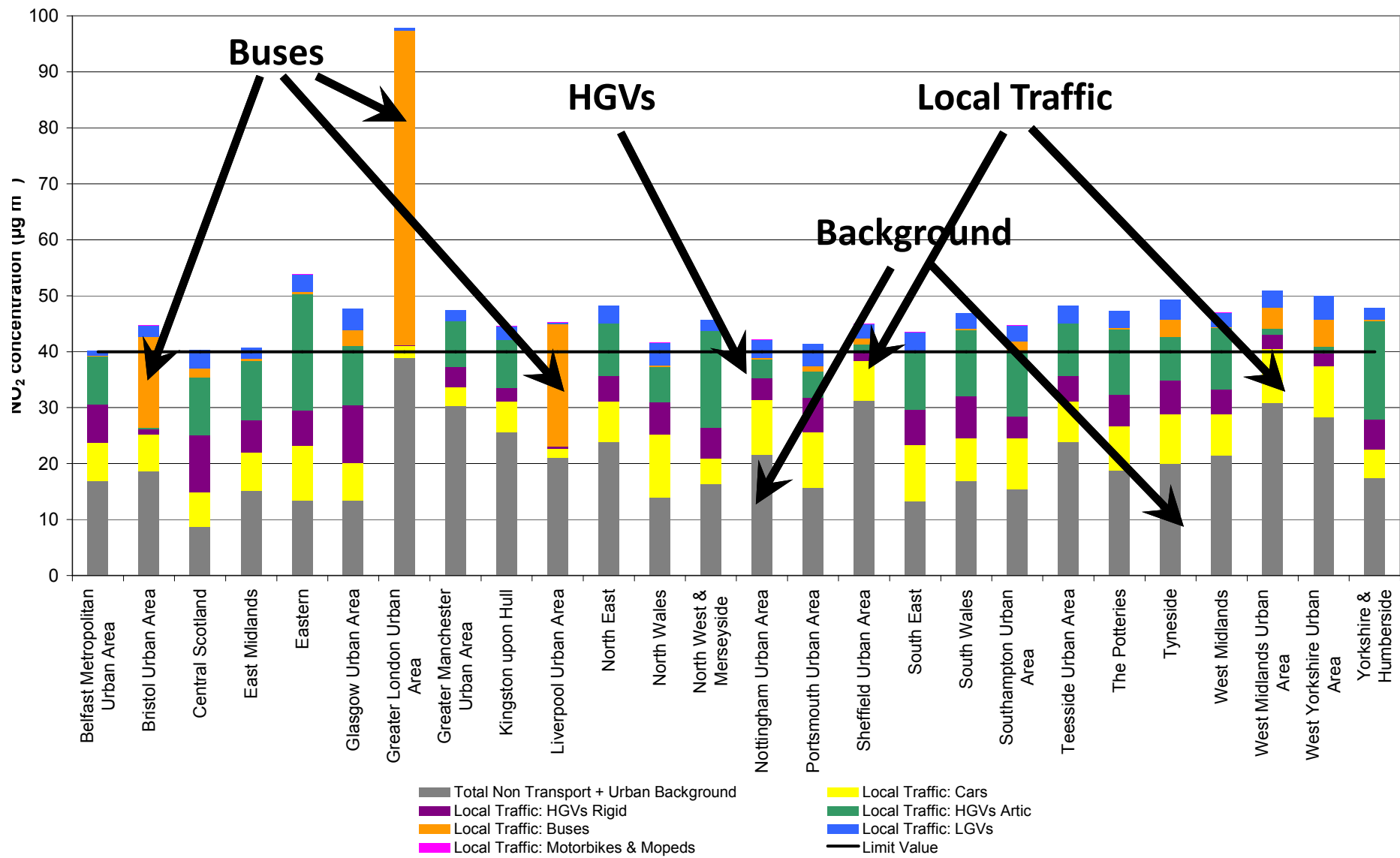
percentage >60

8.22%	4.64%	2.39%	1.32%	0.54%	0.16%	0.03%
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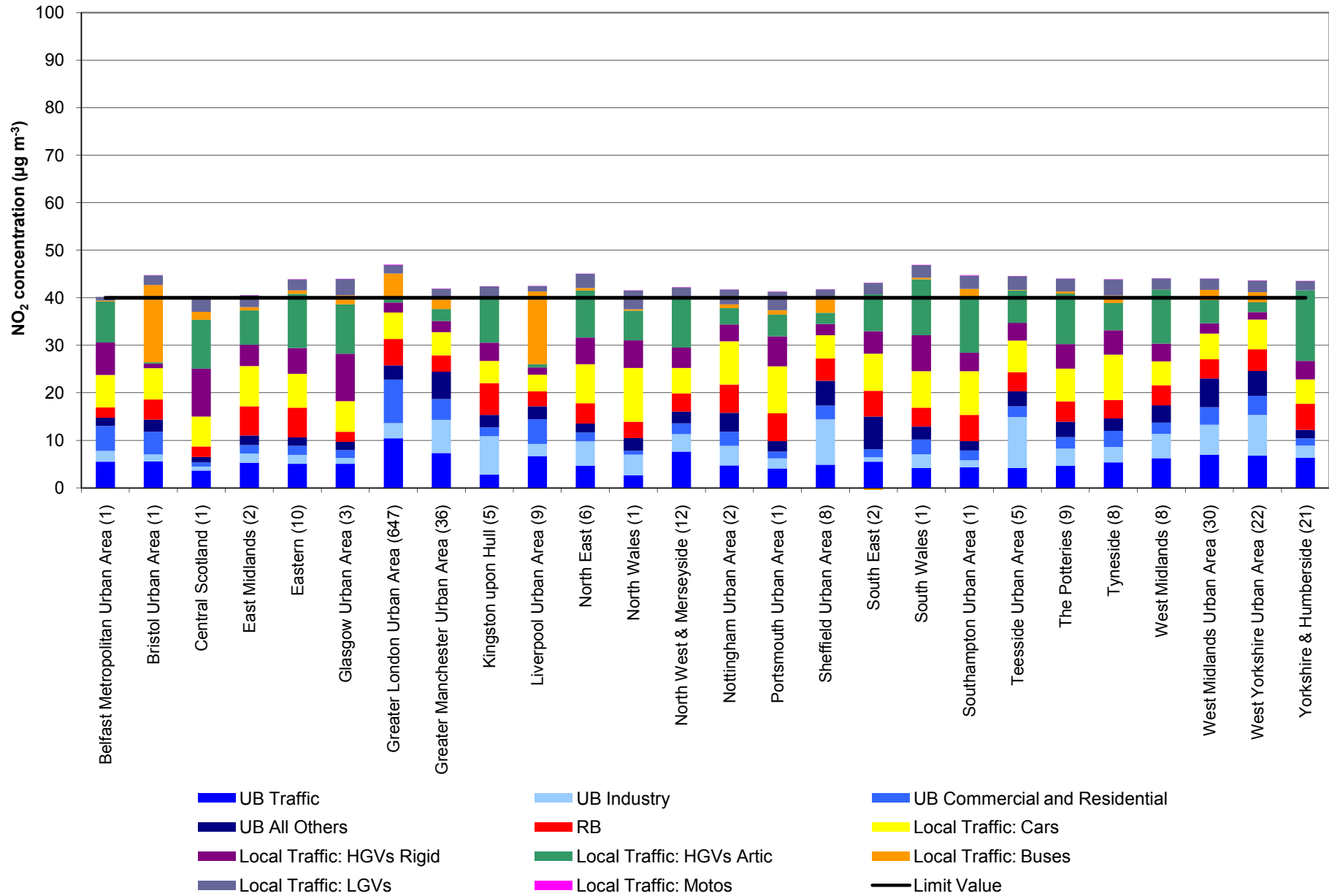
Urban major urban roads, annual mean roadside NO₂ concentration, 2007 ($\mu\text{g m}^{-3}$)



Source Apportionment for NO₂: 2015 max

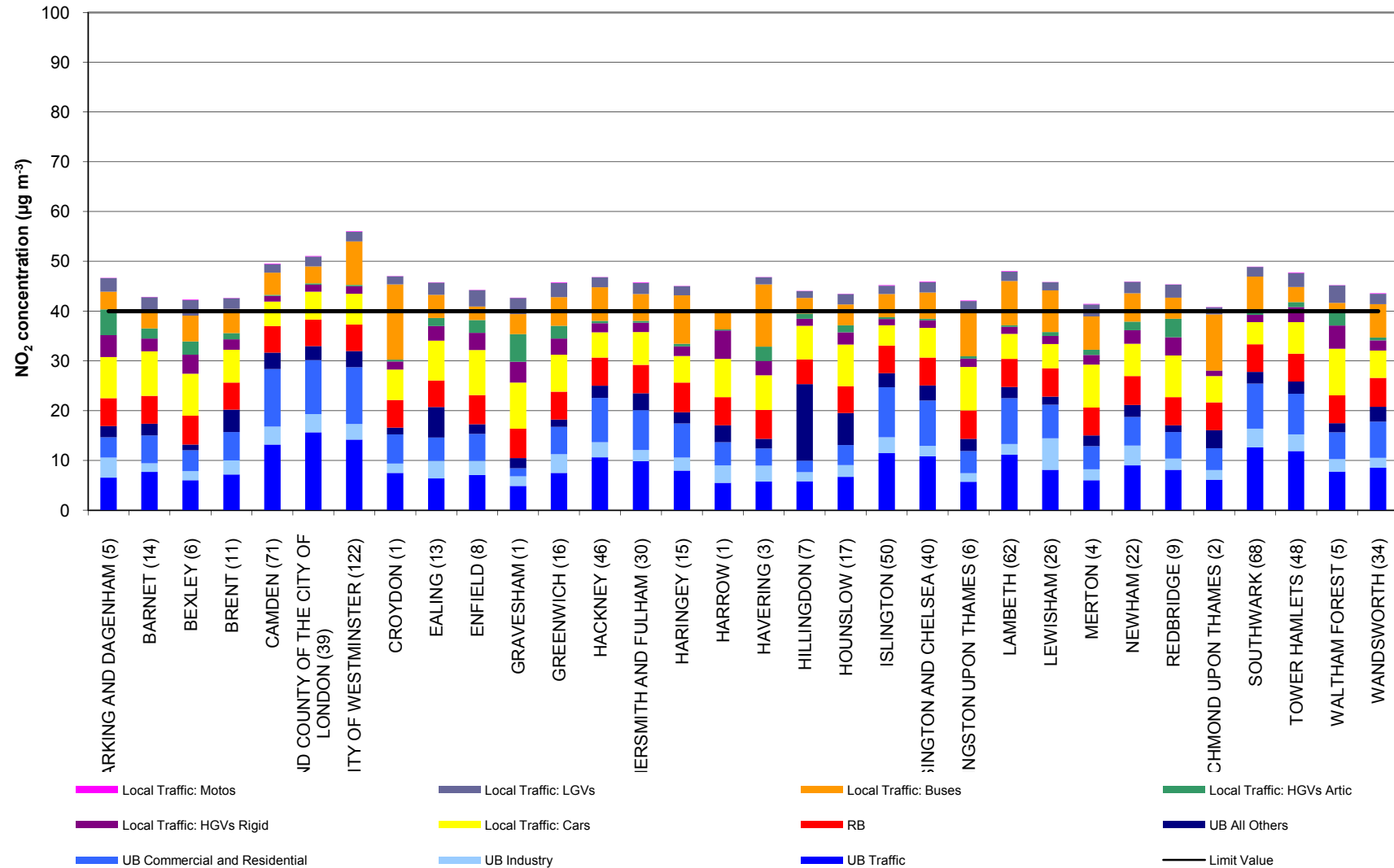


Source Apportionment for NO₂ (Average): 2015



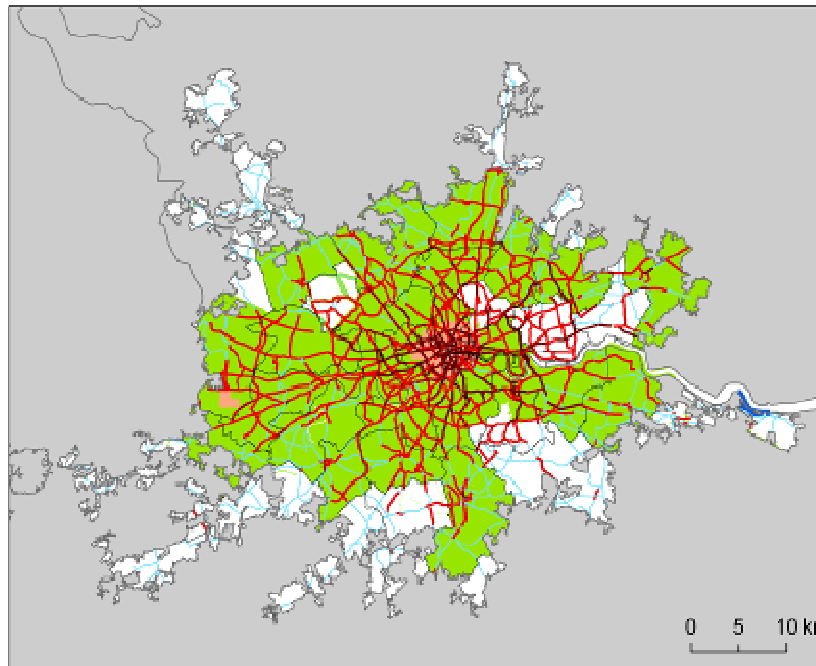
London source apportionment

NO₂ concentration average for 2015

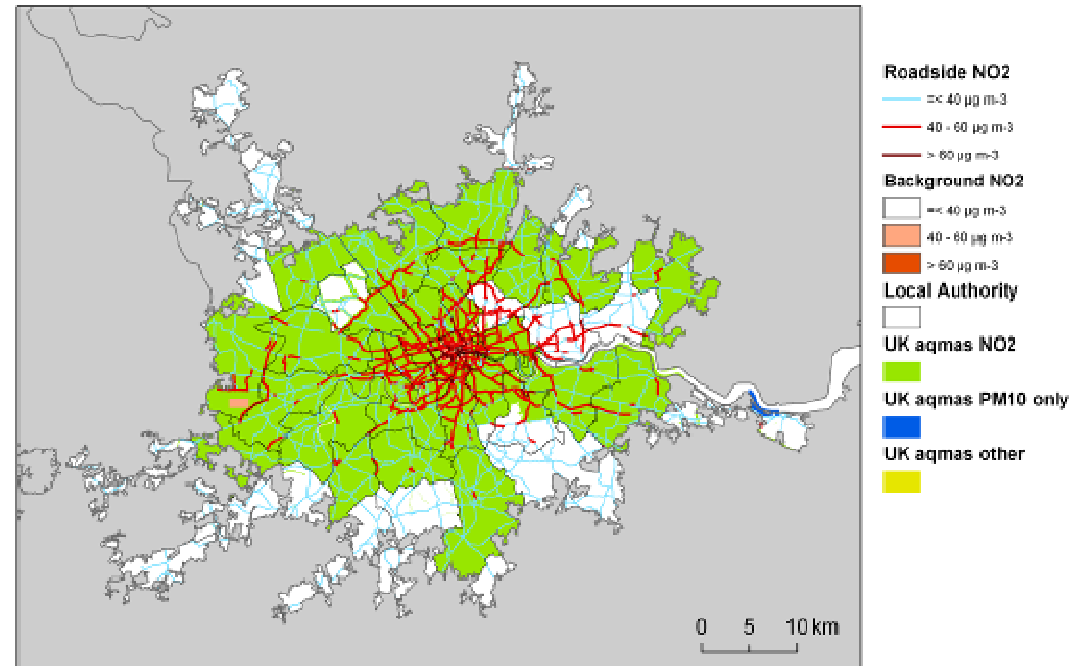


NO₂: London 2010 and 2015 annual mean concentration

Greater London Urban Area UK0001, 2010 Bas



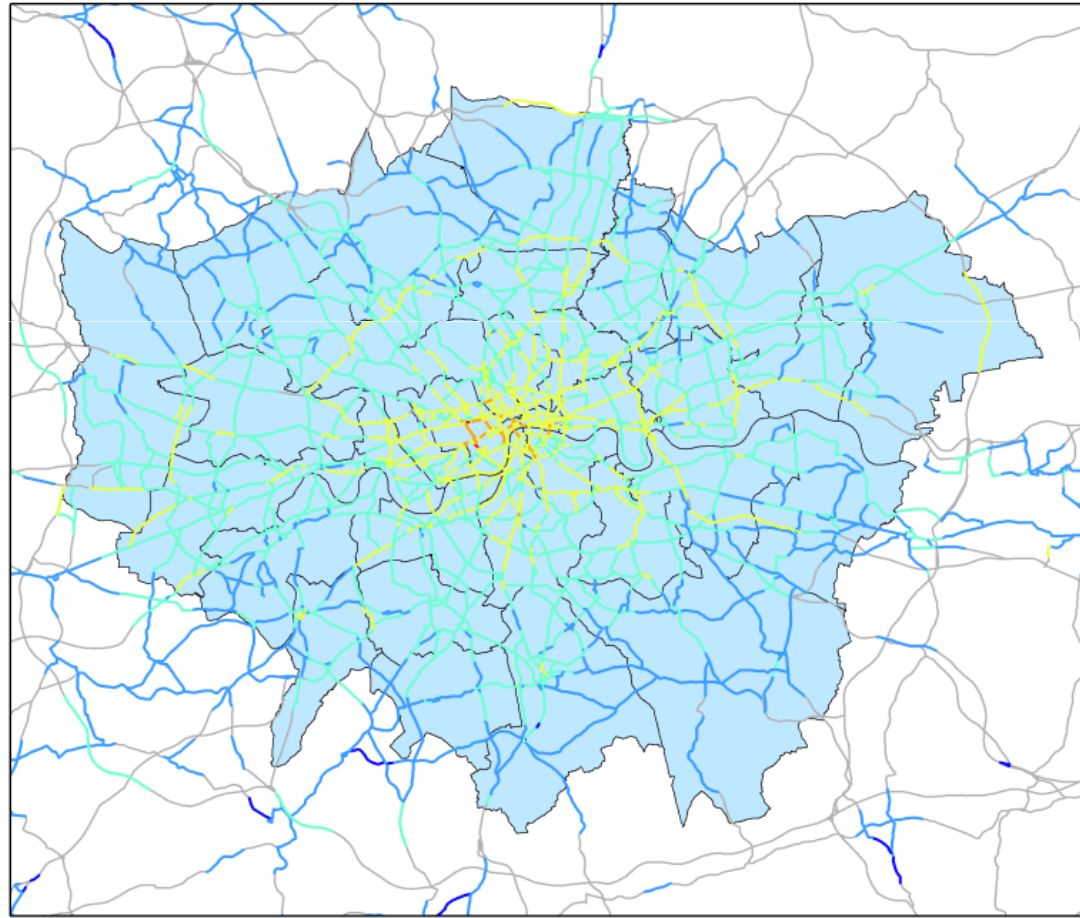
Greater London Urban Area UK0001, 2015 Base



Annual mean NO2 concentration for baseline in 2015 (ugm-3)

ukmjrds05 arc
point:RNO22015B

3.68 - 20.00
20.01 - 30.00
30.01 - 40.00
40.01 - 60.00
60.01 - 80.00
80.01 - 89.22

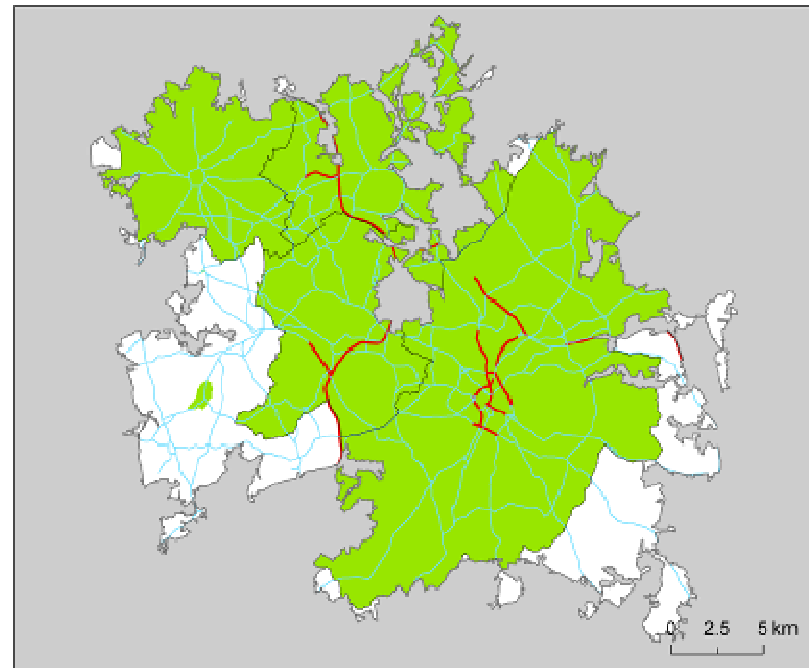


NO₂ West Midlands 2010 and 2015

West Midlands Urban Area UK0002, 2010 Base



West Midlands Urban Area UK0002, 2015 Base



- Roadside NO₂**
 - ≤ 40 µg m⁻³
 - 40 - 60 µg m⁻³
 - > 60 µg m⁻³
- Background NO₂**
 - ≤ 40 µg m⁻³
 - 40 - 60 µg m⁻³
 - > 60 µg m⁻³
- Local Authority**
 -
- UK aqmas NO₂**
 -
- UK aqmas PM10 only**
 -
- UK aqmas other**
 -

Category	Regions	Features
High HGV	Eastern, North West and Merseyside, Yorks and Humberside	Possible to introduce measures which target this source at both the local and national scales
High Bus, High Background	Bristol, GLA, Liverpool	Likely to reflect the localised traffic mix. Measures to address buses at a localised scale, and national scale measures to address the background are likely to be most effective.
High Background	Greater Manchester, Kingston Upon Hull, Sheffield, North East WMid Urban, WYorks	Expected to be challenging due to the diverse nature of the sources, and the geographical scale which would need to be addressed.
Balanced, close to limit value.	Belfast, Cent Scot EMid, N Wales, Nottingham, Portsmouth	National level measures to reduce road transport emissions in general are likely to provide the reductions needed to attain the limit value
Balanced	Glasgow, SEast, S Wales, Southampton, Teeside, Potteries, Tyneside West Mid	It is expected that a range of measures will be needed (both at the national and local scales) to address the problem.

Regional Features

High HGV

- Relatively easy to introduce measures which target this source at both the local and national scales

High Bus, High Background

- Likely to reflect the localised traffic mix. Measures to address buses at a localised scale, and national scale measures to address the background are likely to be most effective.

High Background

- Expected to be challenging due to the diverse nature of the sources, and the geographical scale which would need to be addressed.

Balanced, close to limit value

- National level measures to reduce road transport emissions in general are likely to provide the reductions needed to attain the limit value.

Balanced

- It is expected that a range of measures will be needed (both at the national and local scales) to address the problem.

Available Measures

- Starting point is Air Quality Strategy
- Comprehensive assessment of measures
- Must revisit all measures,
- Budget consideration for incentivising euro 6 and Euro VI for HGVs
- Electric and Hybrid vehicle incentives
- Low Emission Zones and retrofitting at local level

The Local Perspective

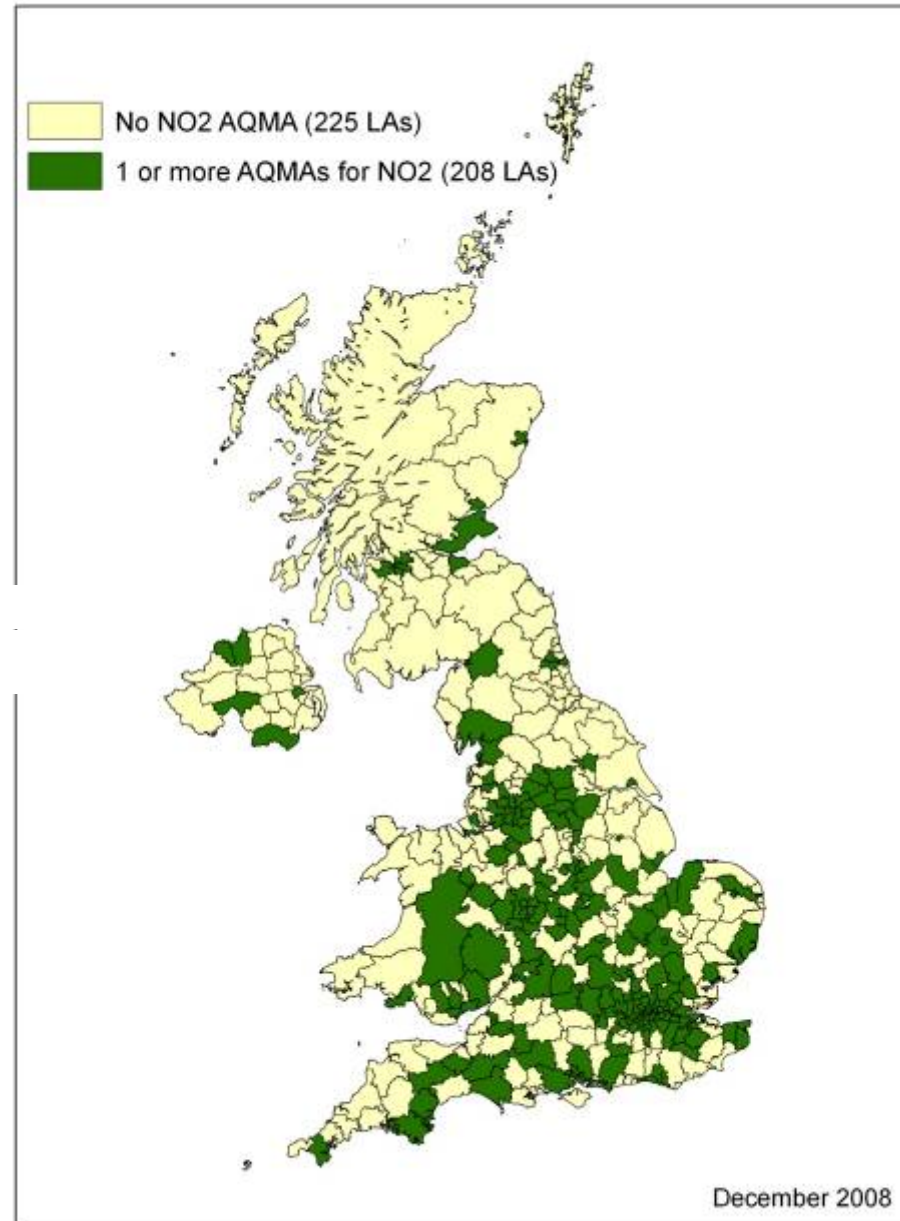
Zone	# exceedences 2015	Km in exceedence 2015
Bristol Urban Area	1	0.5
Wales (N and S)	2	3.5
Glasgow UA	3	8
Liverpool	6	2
Sheffield	8	17
N West and Merseyside	12	20
Yorkshire and Humberside	21	78
West Yorks Urban Area	22	18
West Midlands	30	44
Greater Manchester	36	37
Greater London	802	520

LAs with current AQMAs

Region	LAs with Current AQMAs
England	166
London	33
N. Ireland	11
Scotland	12
Wales	8

LAs with AQMAs by Pollutant

Region	Benz	NO ₂	PM10	SO ₂
England	1	155	36	9
London	-	33	28	-
Northern Ireland	-	6	5	1
Scotland	-	7	4	1
Wales	-	7	1	-
Totals	1	208	74	11



Working with Local authorities

- Coordinated effort at National and local level is needed
- Need to focus on those areas with greatest levels of pollution
- Work with key LAs to prioritise actions
 - Review of action plans to identify opportunities to share good practice/measures
 - Higher level engagement to raise profile of air quality

- Government and Mayor commitment to work together to achieve limit values
- National, Local and London measures need to be coordinated
- Mayor's Air Quality Strategy first draft expected Summer 2009

Date	Key Milestones
Feb2009	Agree proposed approach and share more widely for views
Feb/March/April/ May	Develop generic packages of measures for meeting limit values in zones/agglomerations in exceedence and consultation with stakeholders
June/July	assessments of potential measures/barriers for agreement for inclusion
Aug/Sept/Oct	Detailed modelling and discussions with LA and regional stakeholders to refine options prior to consultation
Nov	Prepare draft consultation document and impact assessment;
Nov/Dec 2009	Issue formal consultation for 12 week consultation period
March 2010	Deadline for comments
April/May/June	Revise Plan in light of comments received
July	Agree revision in light of comments received with DAs and OGDs (possible IDG and AQF meetings)
Aug	Finalise application
Sept/Oct	Submit application to Commission

Seeking views on

- Proposed approach to the work
- Next steps to development of work
- Suggestions on measures
- Other views

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