MALP TECHNICAL SEMINAR

PARKING STANDARDS

OVERVIEW AND LAND IMPLICATIONS

John Lett GLA

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OVERVIEW AND BACKGROUND

- London Plan historic approach to parking: ‘one size fits all’ concerns
- Outer London Commission I
- Further Alterations to the London Plan
- Government and borough concerns
- Outer London Commission II
- Ministerial Statement 25.3.15
- MALP
- Focus on distinct circumstances of parts of Outer London with low public transport accessibility

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EVIDENCE BASE

OLC 4th report

- Typologies of places in outer London
- Car ownership
- Wider network issues
- Parking and viability
- Parking and land
- How is parking delivered
- Other mechanisms for parking management

PARKING AND LAND

- Physical space needed to make provision for more parking
- Space ‘lost’ for additional housing: density, massing, height implications
- Traffic congestion, on-street parking, emergency vehicle access etc
- Environmental eg run-off, greening, air quality
- Viability implications
- Surface rather than underground provision in OL
- More parking/lower densities : implications for supporting social, transport and other infrastructure

FUTURE HOUSING DEVELOPMENT: SOURCES

- Measures of future provision: SHLAA, approvals, completions
- PTALs 0-1: focus of policy impact
- PTAL 2: context to take account of impact in parts of this area
- SHLAA: only sites over 0.25 ha (approved, allocated or ‘potential)
- Approvals: London Development Database
- Completions: London Development Database

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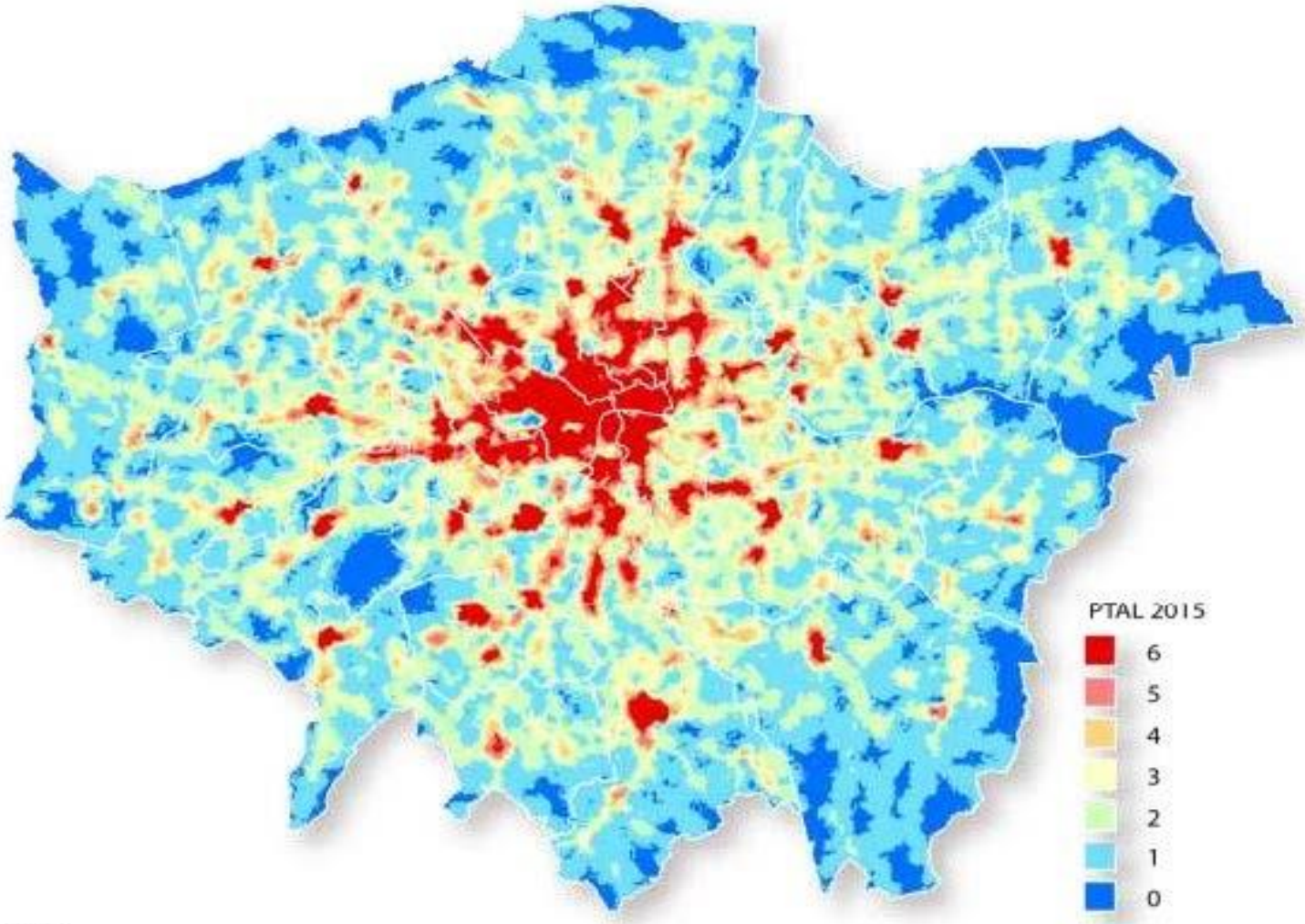
PUBLIC TRANSPORT ACCESSIBILITY LEVELS (PTALS)



Source: TfL
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SCALE OF FUTURE HOUSING DEVELOPMENT (DWELLINGS PA)

	PTAL 0-1	PTAL 2
SHLAA pa (2015 -2025)	1,630	2,100
Approvals pa (2004/5 – 2013/14)	6,100	7,200
Completions pa (2004/5 – 2013/14)	2,400	3,400

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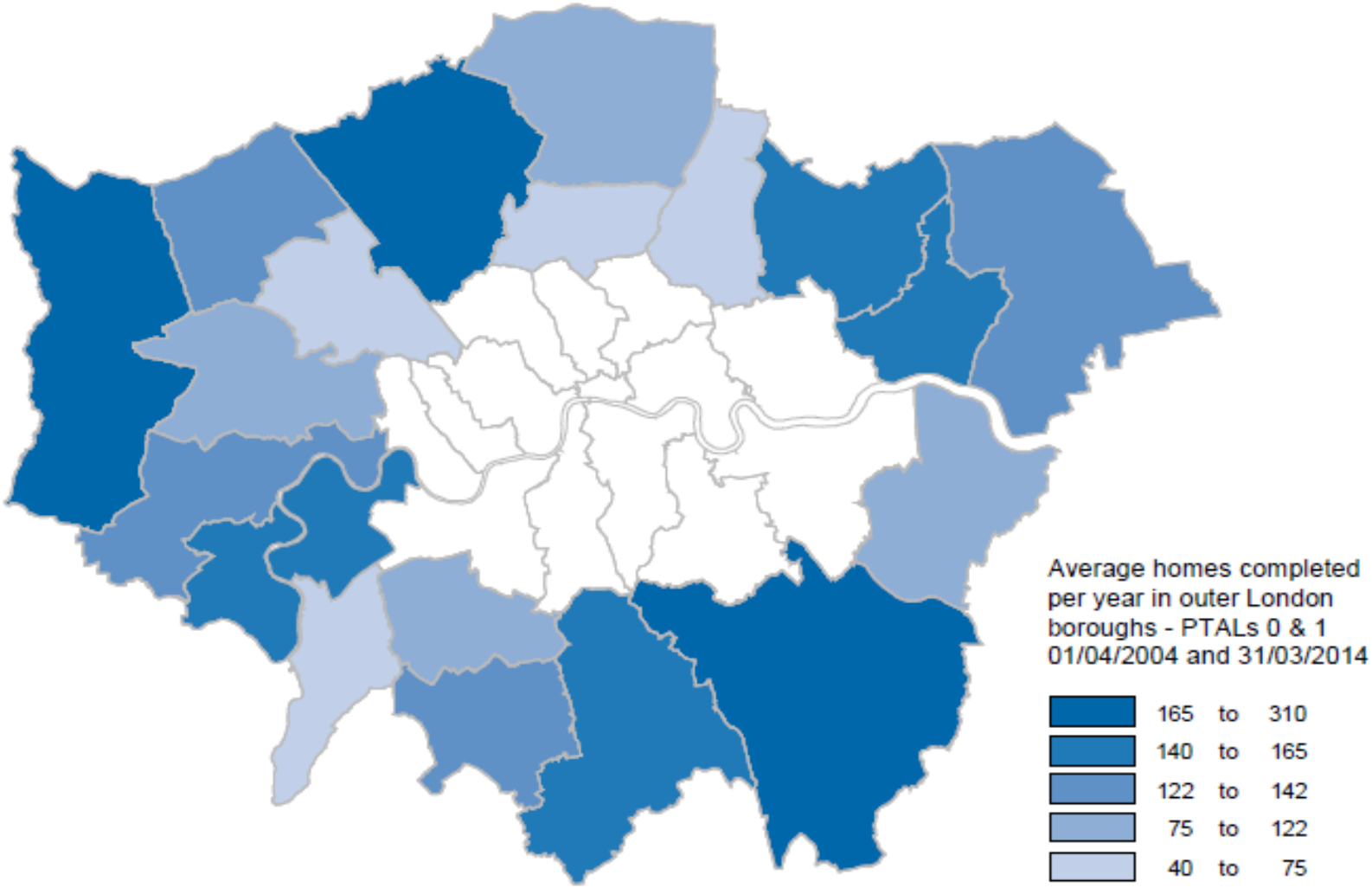
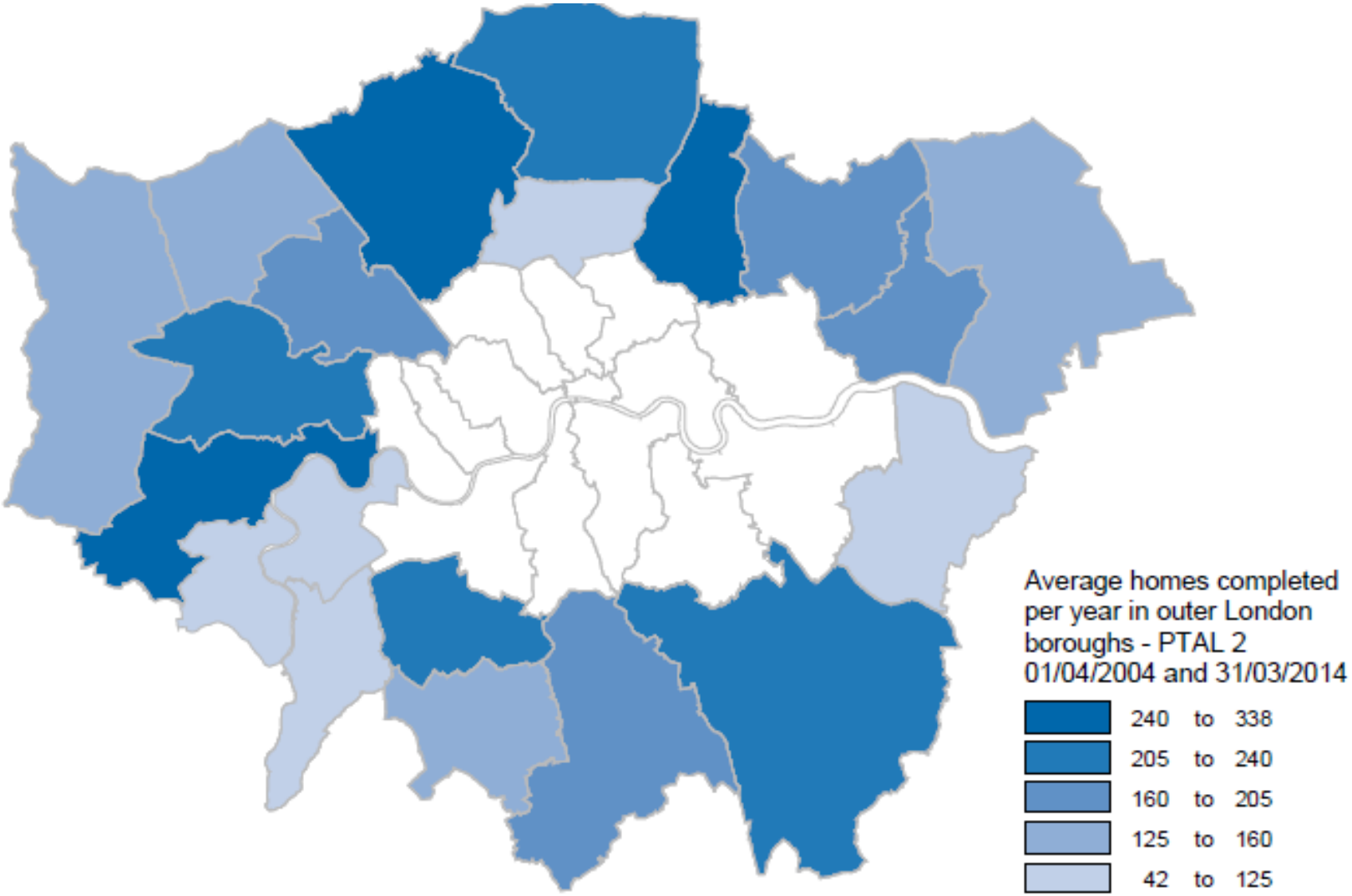
AVERAGE HOUSING COMPLETIONS PA 2004–2014 PTALS 0-1



AVERAGE HOUSING COMPLETIONS PA 2004–2014 PTAL 2



DWELLINGS AND PARKING SPACES COMPLETED 2004/5 – 2013/14

	Dwellings	Spaces	Spaces / Dwelling
London	249,400	194,200	0.77
Outer London	114,400	130,800	1.14
Outer PTAL 2	34,200	44,000	1.29
Outer PTALs 0-1	24,200	42,600	1.76

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AVERAGE LEVELS OF NEW BUILD PARKING PROVISION

- **OL PTAL 0-1 new build: 45% = 0-1.5 spaces/unit; 48% = 1.5-2 spaces/unit; 6% = 2 or more spaces/unit**

- **OL PTAL 2 new build: 53% = 0-1.5 spaces/unit; 43%= 1.5-2 spaces/unit; 3% = 2 or more spaces/unit**

PARKING PROVISION & SITE SIZE

OL

- Small sites (LT 10 units) = 27% of completions
- Large sites (GT 150 units) = 31%
- Majority of all sites = 0.5–1.5 spaces/unit

OL PTAL 0-1

- Small sites: 25% = 2 or more spaces
- Large sites: 0% = 2 or more spaces

OL PTAL 2

- Small sites: 10% = 2 or more spaces
- Large sites: 0% = 2 or more spaces

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PARKING SPACES & LAND TAKE SCENARIOS

	Completions pa	0.5 – 1.0 additional spaces/ dwelling pa	19 – 24 sq m /space (Ha) pa	Dwellings equivalent (45 dph) pa
OL PTAL 2	3,420	1,710/3,420	3.2/8.2	140/370
OL PTALs 0-1	2,420	1,210/2,420	2.3/5.8	100/260

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PARKING STANDARDS

HIGH LEVEL IMPACTS AND MODELLING

Peter Wright TfL

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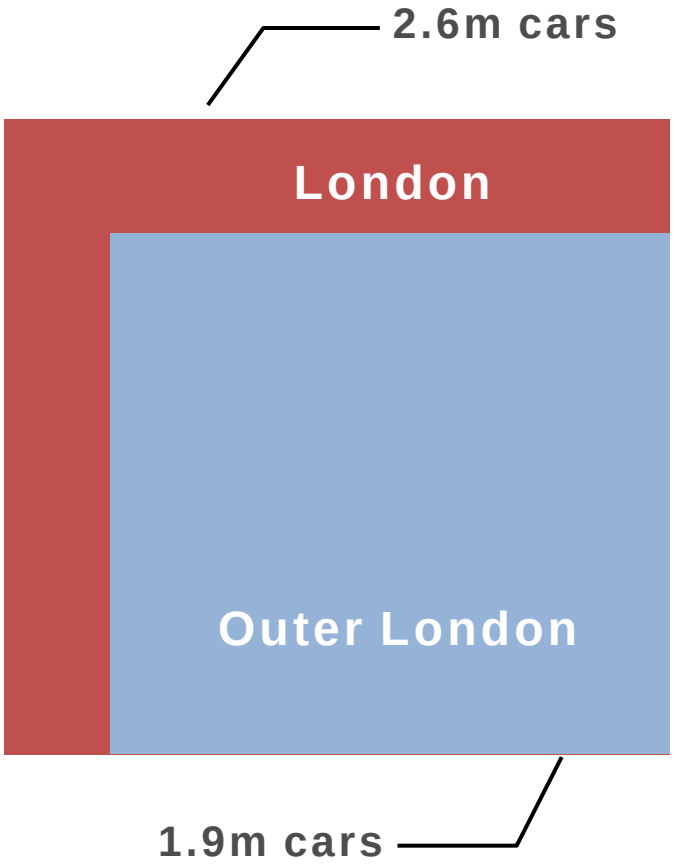
CONTENTS

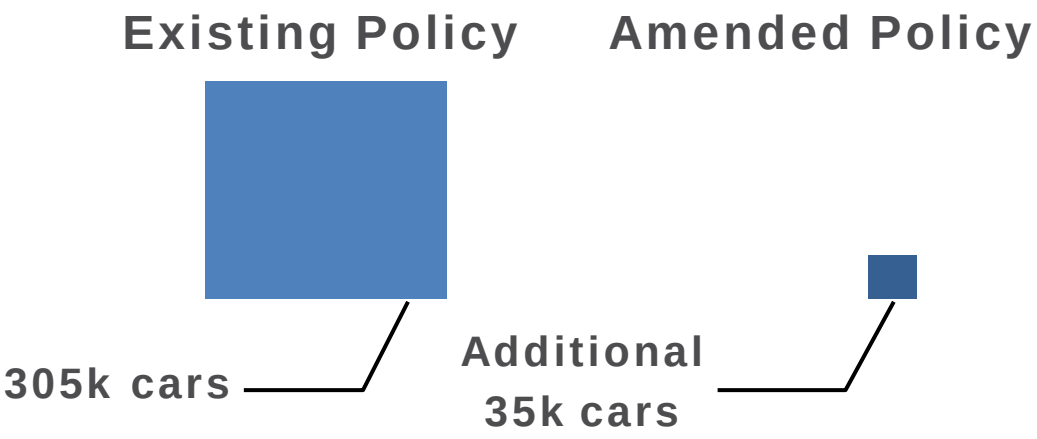
- Assumptions on parking levels and additional car ownership
- High level modelling of traffic impacts
- High level estimate of air quality impacts
- Summary
- Conclusions

ASSUMPTIONS ON PARKING LEVELS AND ADDITIONAL CAR OWNERSHIP

2014



2031



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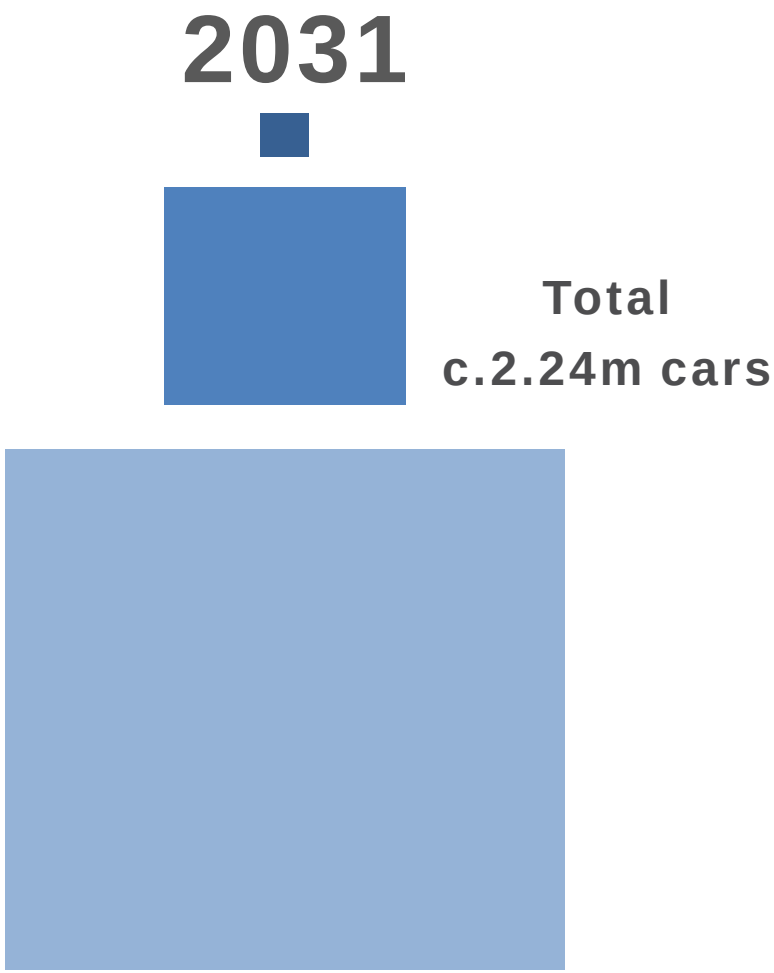
ASSUMPTIONS ON PARKING LEVELS AND ADDITIONAL CAR OWNERSHIP

- Current assumption is an additional 305k cars associated with new developments by 2031
- Based on behaviour of other people living in recently built developments
- Policy assumption: new developments in outer London have one space per unit – additional 35k cars



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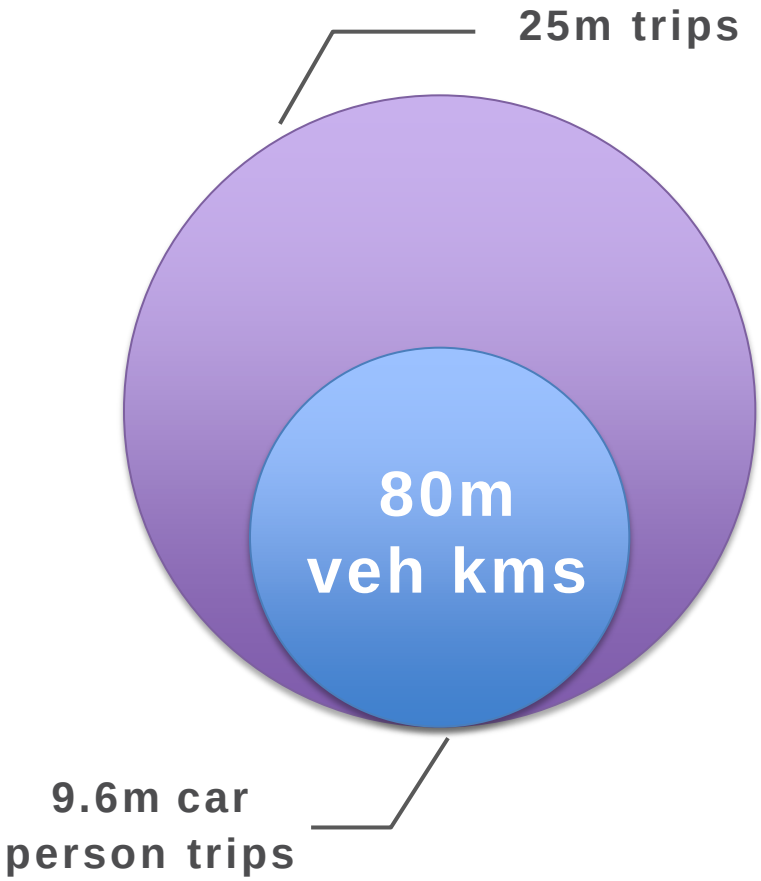
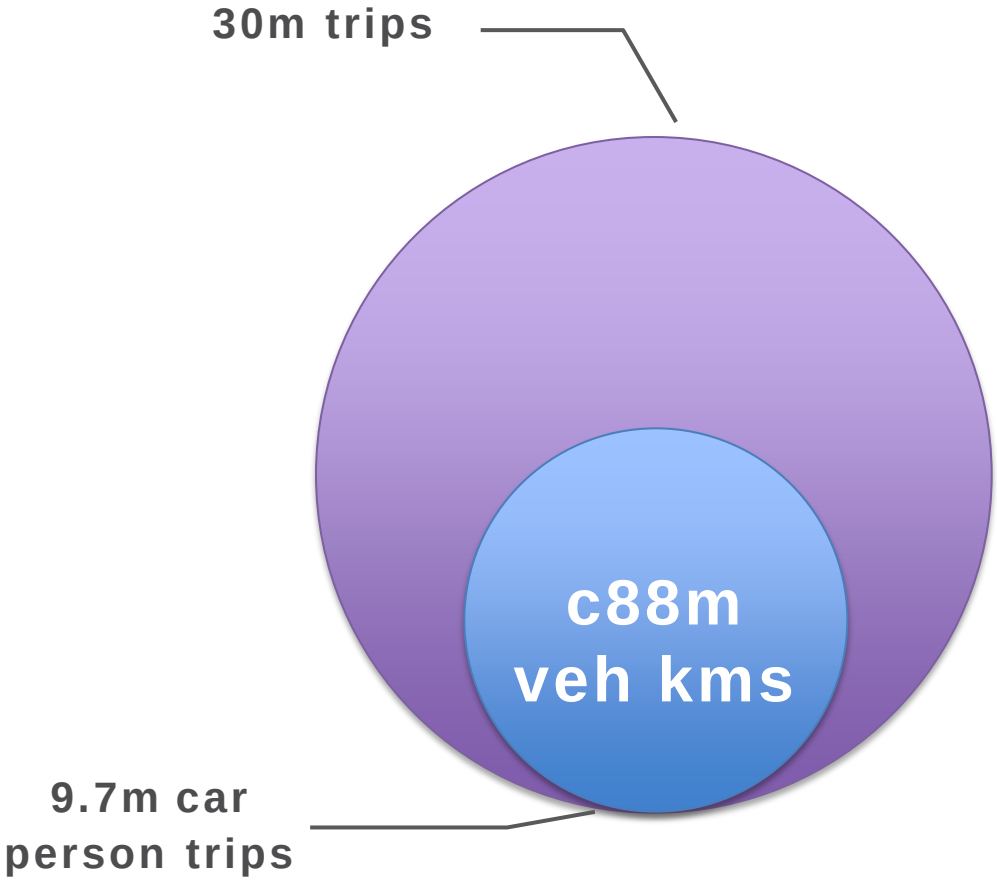
HIGH LEVEL MODELLING OF TRAFFIC IMPACTS - CONTEXT

2011



2031



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HIGH LEVEL MODELLING OF TRAFFIC IMPACTS - APPROACH

- **Strategic modelling assessment of potential impacts of relaxing parking standards in outer London using TfL's London Transportation Studies (LTS) model**
- **Assessment of all modes of travel, traffic, speeds and overall trip changes over 24 hours and more detail between 07:00 and 19:00**
- **The modes are presented by Car, Public Transport (PT), Walking and Cycling (W & C)**

HIGH LEVEL MODELLING OF TRAFFIC IMPACTS - ASSUMPTIONS

- Modelling test assumed relaxation in parking supply – assuming higher car ownership – compared to existing restraint-based policy or ‘low car’ LTS scenario
- Assumption of additional car ownership estimated an additional 35,000 cars (24,000 additional car owning households with an average of 1.4 cars per household)
- Results presented at a strategic level as appropriate for this type of modelling

HIGH LEVEL MODELLING OF TRAFFIC IMPACTS – RESULTS (12 HOUR)

TRIPS

Mode	Absolute change	Percentage change
Car	57,000	0.8%
PT	-22,000	-0.2%
Walking and cycling	-17,000	-0.3%
All	18,000	0.1%

Source: LTS Model

CAR KM

Area	Absolute change	Percentage change
Central	2,000	0.2%
Inner	15,000	0.2%
Outer London Boroughs	161,000	0.5%
GLA	178,000	0.4%

Source: LTS Model

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HIGH LEVEL MODELLING OF TRAFFIC IMPACTS – RESULTS (12 HOUR)

VEHICLE SPEEDS (KPH)

Area	Absolute change	Percentage change
Central	0.0	0.0%
Inner	0.0	-0.1%
Outer London Boroughs	-0.1	-0.2%
GLA	0.0	-0.2%

Source: LTS Model

DELAY(MINS/KM)

Area	Absolute change	Percentage change
Central	0.00	0.1%
Inner	0.00	0.2%
Outer London Boroughs	0.00	0.7%
GLA	0.00	0.4%

Source: LTS Model

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HIGH LEVEL MODELLING OF TRAFFIC IMPACTS - RESULTS

- The estimated car ownership increase is likely to result in a small increase in trips and vehicle volumes (c.0.5%) and a reduction in PT, W & C
- The traffic growth is equivalent to approximately 1 year's growth from the 20 year forecast of changes in London travel ('low car' scenario)
- Overall the impacts are small in the context of London's growth though this does not assess the specific impacts of development on the local transport networks
- The increase in car trips is against the trend of reducing car km and increases in trips by sustainable modes

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HIGH LEVEL ESTIMATE OF AIR QUALITY IMPACTS – APPROACH

- TfL has a spreadsheet tool called the Emissions Assessment Tool (EAT)
- EAT is consistent with King's College London Atmospheric Emissions Inventory (LAEI) in terms of fleet composition (euro standards and vehicle size) and emissions functions
- EAT combines LAEI data with vehicle kilometre and speed data from LTS (borough level)
- EAT presents emissions of CO_2, oxides of nitrogen (NO_x) and particulate matter from exhausts as well as tyre and brake wear (PM_{10})
- Compared against LTS 'low car' scenario for 2031 reference case

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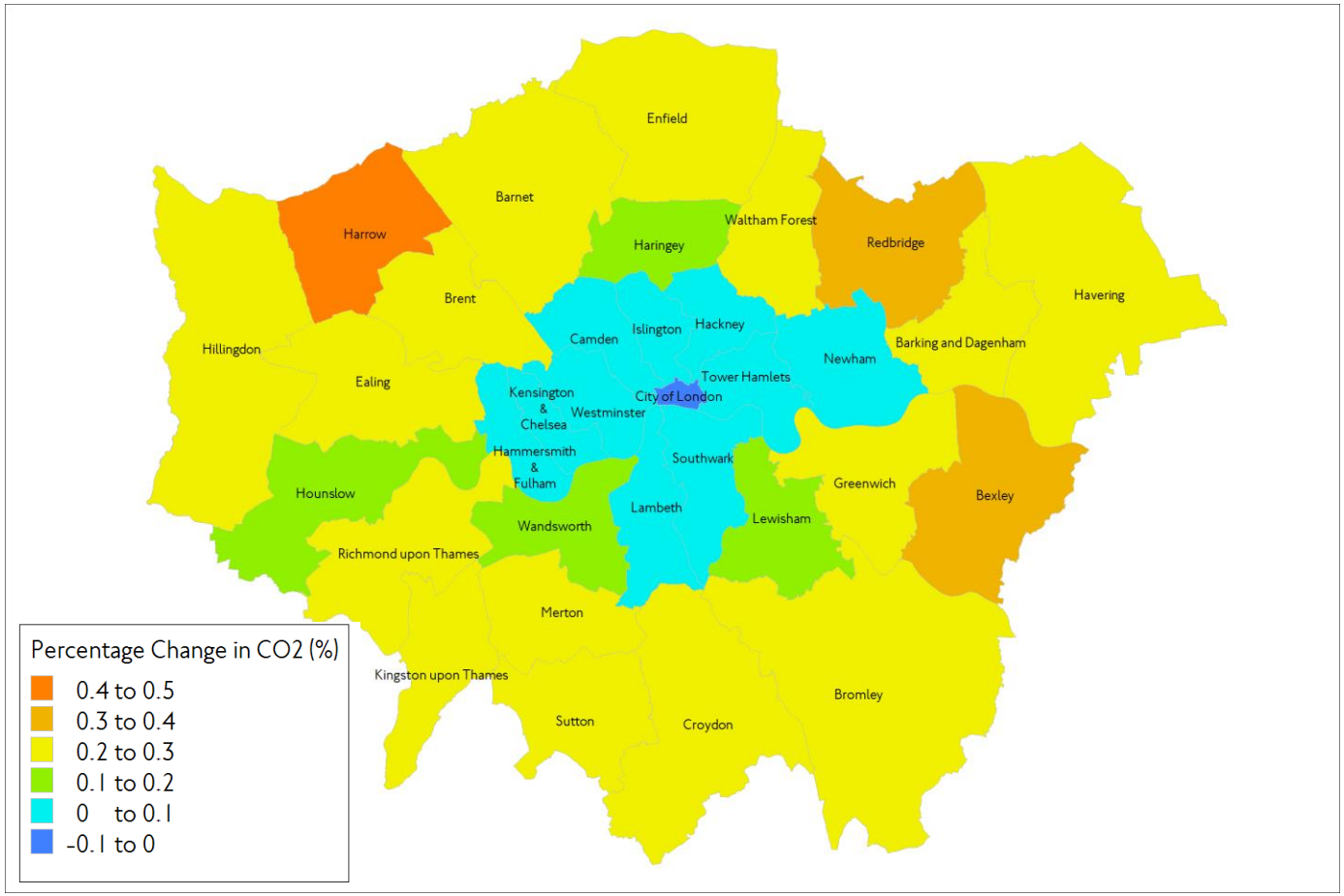
HIGH LEVEL ESTIMATE OF AIR QUALITY IMPACTS – RESULTS (CO_2)



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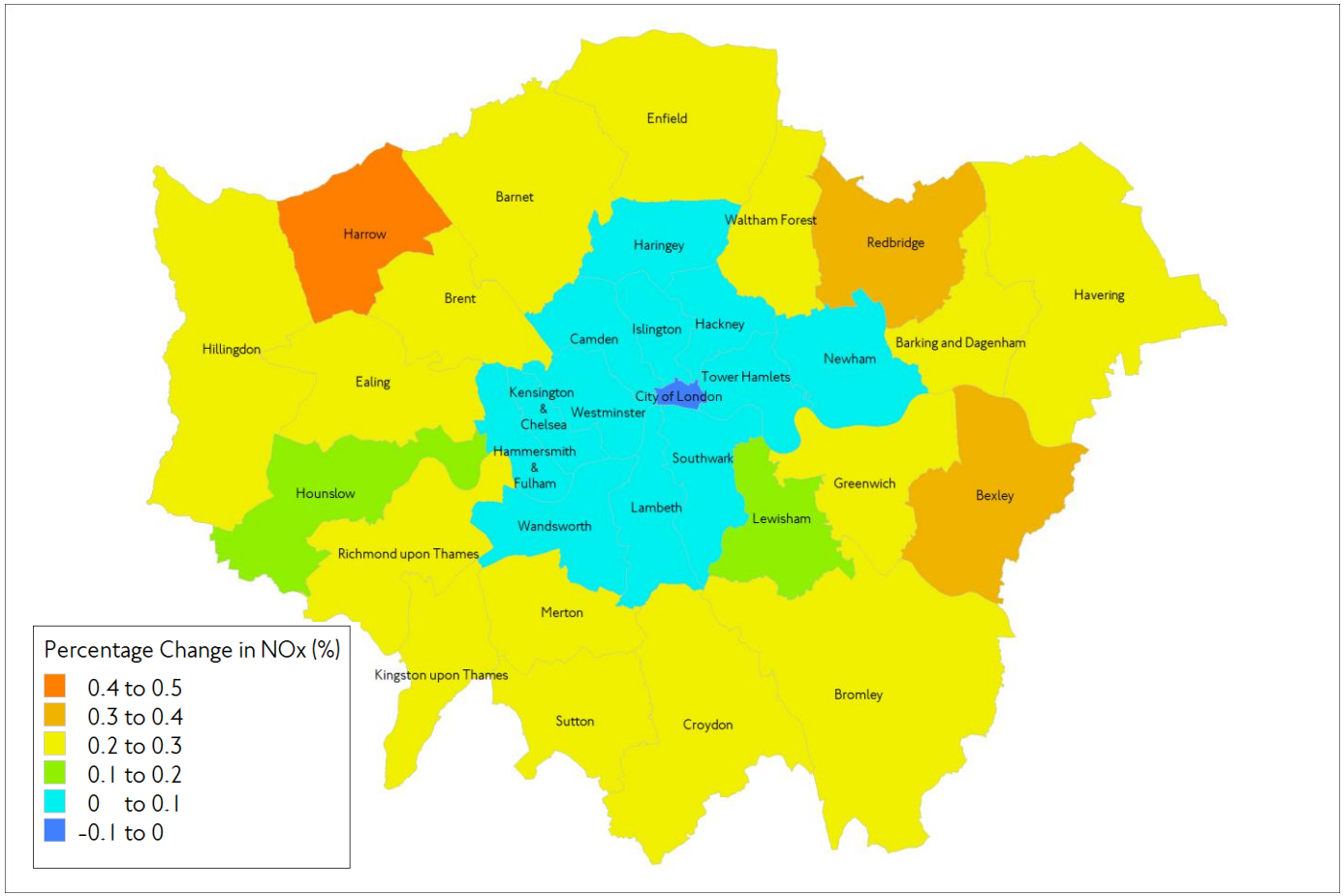
HIGH LEVEL ESTIMATE OF AIR QUALITY IMPACTS – RESULTS (NO_X)



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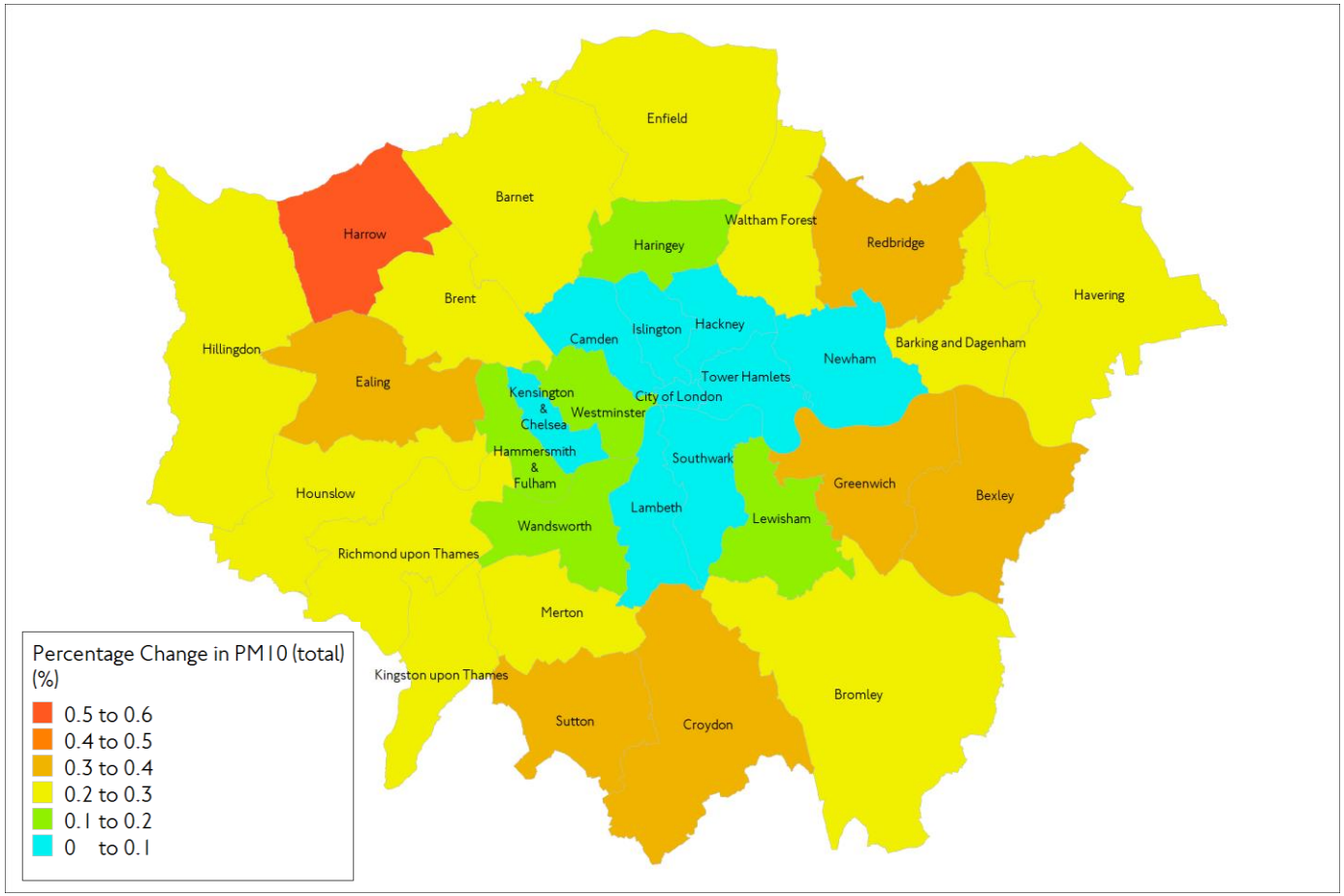
HIGH LEVEL ESTIMATE OF AIR QUALITY IMPACTS – RESULTS (PM_{10})



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HIGH LEVEL ESTIMATE OF AIR QUALITY IMPACTS – RESULTS

- Maps show relative differences between boroughs – but there are rounding issues
- All authorities (except City of London) see increases in emissions of 0.5 per cent or less
- Outer London boroughs have a slightly higher percentage increase in emissions than Inner London boroughs
- Emission levels assume no mitigation in place
- In context, the implementation of an Ultra Low Emission Zone in 2020 is expected to decrease emissions of NO_x by around 50%

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SUMMARY

- Modelling assumed a maximum of 10% more new cars in outer London compared to existing assumptions
- High level modelling of traffic impacts of c.0.5% increase in trips, minor change to speed and delay
- High level estimate of air quality impacts of less than 0.5% increase in all boroughs
- Impacts assume no mitigation in place

CONCLUSIONS

- The increase in car numbers in outer London is small in the context of existing and forecast car ownership in ‘low car’ scenario
- Minor increase in modelled traffic levels in outer London with minor negative impact on air pollutant emissions (at a high level)
- Minor reductions in PT, W & C associated with amended policy approach
- Results are presented with no mitigations in place
- Impacts of developments at a local level should be assessed

QUESTIONS?

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ANNEX: PTAL AND WEBCAT

- PTALs can be calculated using WebCAT
- Values can be for specific sites (using a 100m grid) or a strategic level heat map
- TfL considers future PTALs in OAPFs and at major development sites, while developers/the public can calculate future PTALs using data available to download on WebCAT
- PTALs based on an index (PTAI) with more granularity and calculations are contained in a spreadsheet, allowing elements to be changed to determine impacts on overall score