

Session Three

Clean Air Zones

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 **URBAN
TRANSPORT
GROUP**
The voice of UK
urban transport

Sam Harrison

Head of Communications & Stakeholder
Engagement

Joint Air Quality Unit (JAQU)



Department
for Environment
Food & Rural Affairs



Department
for Transport

Clean Air Zones

Joint Air Quality Unit

Sam Harrison– Communications - JAQU

Air pollution is a public health risk

Air pollution...



Exacerbates symptoms

of those already suffering from **lung or heart conditions** shortening lives and reducing quality of life

Air pollution is the **largest environmental health risk** in the UK.

Long-term **exposure to air pollution** **reduces life expectancy** by increasing deaths from lung, heart and circulatory conditions.

Conditions caused or exacerbated by air pollution include **asthma, chronic bronchitis, chronic heart disease (CHD), and strokes.**

Air pollution most severely affects vulnerable groups, for example **the elderly, children and people already suffering from pre-existing health conditions..**

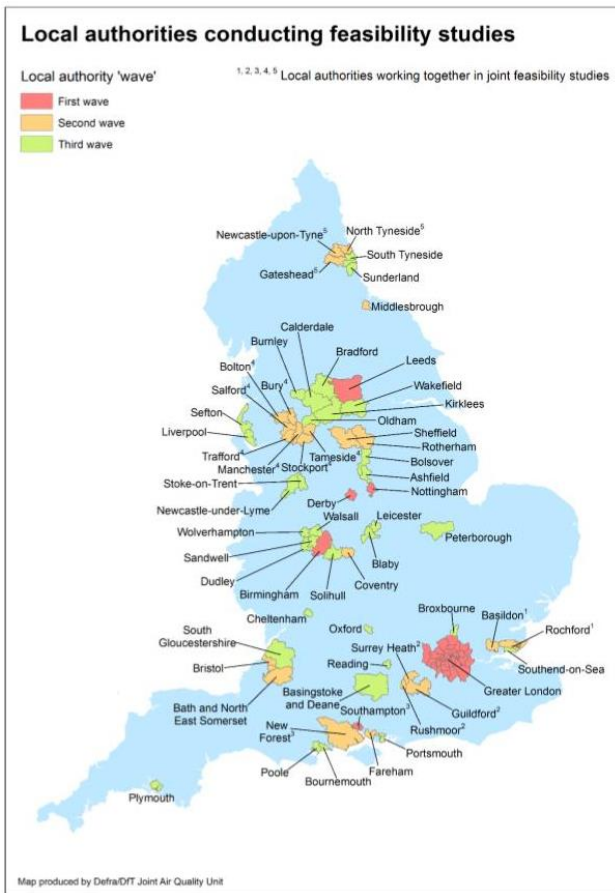


Why are we implementing Clean Air Zones?

- Air quality is improving but Government's most immediate air quality challenge is to reduce concentrations of NO₂ around roads where levels are above legal limits.
- The concept of Clean Air Zones (CAZs) was first set out in 2015 UK **NO₂ Plan** as a key tenant to tackling NO₂ concentrations at the roadside. They continued to be a key part in the 2017 NO₂ Plan and supplement.
- The **CAZ Framework** was consulted on and published in May 2017. CAZs have a set of minimum requirements that includes being a delineated geographical area and can cover a range of measures to improve air quality. An optional requirement is that they can include a charging access restriction element using existing Transport Act 2000 powers – a **Charging Clean Air Zone (CCAZ)**.
- The charge is intended to improve air quality by driving behaviour change for cleaner journeys through changing the fleet composition, increasing the number of sustainable journeys etc. These are not designed to be revenue raisers nor congestion charges and any excess profit generated needs to be used for local transport.
- JAQU is working with **61** local authorities that have an NO₂ exceedance **37** local authorities who have persistent exceedances (over 3 years) have been required to **draw up a plan** to address the exceedance in the **shortest possible time** and consider a CCAZ. Although, other non-charging measures are preferred if they are at least as effective.



Overview of Local Authorities taking action



The risk from NO₂ is highly localised, so interventions are targeted to the problem areas.

5 'First wave' LAs, plus London: directed to develop local plans by Sept 2018.

23 'Second Wave' LAs: directed to develop local plans by Dec 2018.

33 'Third Wave' LAs: projected to become compliant in 2019, 2020 or 2021 in national modelling and directed to conduct targeted feasibility studies in Mar 2018.

Subsequently,

- **10 of these LAs** shown to be already compliant by detailed local models.
- **10 of these LAs** directed to implement measures.
- **8 of these LAs** directed to develop detailed plans in Oct 2018.

Clean Air Zones (CAZs)

- Clean Air Zones can be **charging** or **non-charging**.
- Government has published a **Clean Air Zone Framework**, setting out the principles for CAZ operation in England and local authorities have existing powers to implement them if they choose to.

- **Four charging CAZ classes (A-D)** are distinguished:

CAZ class	Vehicles types included
A	Buses, coaches, taxis, PHVs
B	Buses, coaches, taxis, PHVs, HGVs
C	Buses, coaches, taxis, PHVs, HGVs, vans, minibuses
D	Buses, coaches, taxis, PHVs, HGVs, vans, minibuses, cars (+ <i>optional</i> : motorcycles)

- For each vehicle type, **minimum emission standards** for operation inside CAZs are defined:

Vehicle type	CAZ minimum standard
Buses, coaches, HGVs	Euro VI
Vans, minibuses, taxis, PHVs, cars	Euro 6 (diesel) Euro 4 (petrol)
Motorcycles	Euro 3



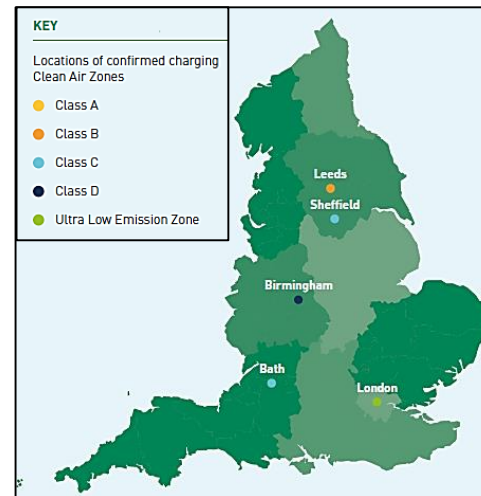
Local Authorities - local plans

Local Authority	Agreed Measures	Status & Timeline
London (Mayor responsible)	ULEZ (= charging CAZ D + motorcycles)	starting 8 April 2019 expansion in Oct 2021
Leeds	charging CAZ B	plan approved CAZ starting Jan 2020
Birmingham	charging CAZ D	plan approved CAZ starting Jan 2020
Nottingham	bus retrofitting support for low emission taxis	plan approved and in progress
Southampton	sustainable transport measures	plan approved and in progress

About half of these have proposed or are continuing to consider charging CAZs.

When and how many CCAZs will there be?

Local Authority	Type of CCAZ	Status and timeline
London (Mayor responsible)*	ULEZ (= charging CAZ D + motorcycles)	Started 8 April 2019 Expands Oct 2021
Leeds	CCAZ B (with higher standards for taxis and private hire vehicles)	Jan 2020 (Approved)
Birmingham	CCAZ D plus traffic measures	Jan 2020 (Approved)
Bath and Sheffield	CCAZ C or D	Late 2020/early 2021 (Conditionally approved)
Coventry	CCAZ D or other	2021 (Required class TBC)
Manchester, Bristol and Tyneside (TBC Q2/3 2019)	CAZ B, C or D	Early 2021 (under development)
Up to 5 third wave of LAs (TBC)	CAZ B, C or D	Early 2022 (under development)



* London ULEZ is similar but not a CCAZ and does not use CCAZ services

Infrastructure - Traffic Signs & ANPR

- Traffic signs to highlight when a vehicle is driving through a CAZ
- Research has been done into the best signage, some examples are below



- ANPR cameras to capture the number plate, make and model and ensure compliance
- Publication of ANPR Guidance for LAs when procuring ANPR infrastructure
- Creation of a new CAZ Certification of Approved Devices for CAZ ANPR Systems

Digital Delivery (CCAZ)

Digital delivery of Charging Clean Air Zones (CCAZ)

The digital delivery is made up of three core work streams:

- **Centralised Taxi and PHV Database** – A centralised database of all Taxi and PHV data that is currently held by each of the Licensing Authorities
- **Vehicle Checker** – A web tool that will allow motorists to enter a VRM to determine whether or not they will incur a charge for entering a Clean Air Zone
- **Payments, Settlement and Reconciliation (PSR)** – A Centralised Payment Portal where a motorist can pay the charge for entering a CAZ. This payment portal is built on the Gov.Pay functionality.

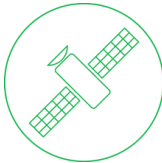
Database: Taxi and Private Hire Vehicles



- Database will enable local authorities who decide to introduce a charging CAZ to identify taxis and PHVs which have been licensed by another licensing authority



- Enable effective operation of their charging CAZ (class/price)
- Licensing authorities in England and Wales already hold details of taxi/PHVs they have licensed but do not have access to similar information for vehicles licensed by other licensing authorities.
- Regulations laid in parliament requiring all licensing authorities in E&W to provide certain information about taxis and PHVs that they have licensed to a central database. CIF 1 May 2019



- Although all licensing authorities will need to provide information for the database **only a certain number of local authorities** will use this information for charging Clean Air Zone purposes.

Database: Implementation



- Licensing Authorities to submit data to the Taxi and PHV Centralised Database
- These data will include
 - VRM
 - License Start Date
 - License End Date
 - Taxi or PHV
 - Licensing Authority Name
 - Licence Plate Number
 - Wheelchair Accessible Vehicle (Yes or No)
- Upload Mechanisms
 - API – LAs can integrate with an API
 - CSV – LAs can upload a .csv of the data

Vehicle Checker



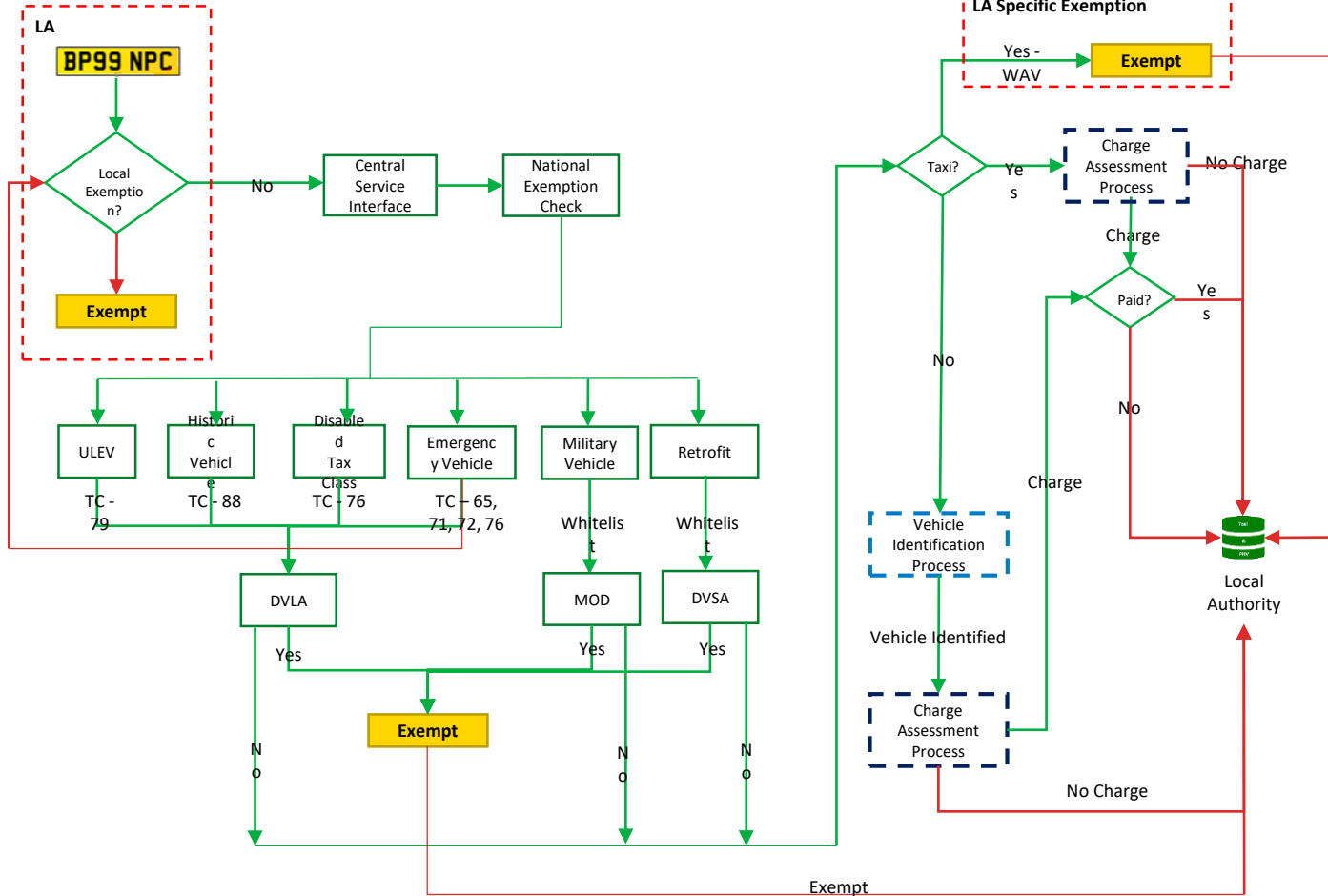
- Online Web Tool where a motorist can enter a VRM and the tool will return vehicle details, as well as whether their vehicle will be charged if they enter Clean Air Zones
- Whether a vehicle will be charged is determined by a vehicle's emissions standards and based on [European Emissions Standards](#)

Timelines

Vehicle Checker - Timeline (based on latest Beta SoWs)

Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7	Sprint 8	Sprint 9	Sprint 10	Sprint 11
17/04 - 30/04	01/05 - 14/05	15/05 - 28/05	29/05 - 11/06	12/06 - 25/06	26/06 - 09/07	10/07 - 23/07	24/07 - 06/08	07/08 - 20/08	21/08 - 03/09	04/09 - 17/09
Inception	Beta Build - Hosting - CI - Dev Doc	Beta Build - VRM - Vehicle Details	Beta Build - Vehicle Selection - Assisted Digital - Testing	Beta Build - CAZ Compliance - CI - Testing	Beta Build - CAZ Compliance - CI - Testing	Beta Build - CAZ Compliance - CI - Testing	Beta Build - CAZ Compliance - CI - Testing	Beta Build - Integration - CI - Testing	Beta Build - CI - Testing - Monitoring and Alerting	Private Beta Planning and Transition to Public Beta
Data Required: Make, Model, Colour, Body Type (Vehicle Confirmation)				Data Required to Determine Charge						

Data Flow – Part 1



Catherine Westoby

Projects Communications Specialist
Transport for London (TfL)

The Ultra Low Emission Zone

4 July 2019

Catherine Westoby
Transport for London



The challenge



London's toxic air is a public health crisis

- **Thousands of Londoners die prematurely each year** because of toxic air pollution.
- London's toxic air is **stunting the growth of children's lungs** in ways that will affect them for the rest of their lives.
- **Toxic air pollution is a cause of cancer** and it increases the risk of asthma, stroke and dementia.
- **London's toxic air crisis is also an issue of social justice** as air pollution is worse in more deprived areas.
- **Road transport is the biggest contributor** to air pollution in London



How air pollution is doing more than killing us



'Location, location, lung disease': pollution ads target property market

Citizen-funded campaign to flag up illegal levels of toxic air to London buyers and renters

Air pollution is a bigger killer than SMOKING: Dirty air from vehicles, factories and power plants kills 8.8 million people worldwide each year,



Evening Standard.

1,000 asthmatic children need hospital treatment thanks to London's toxic air






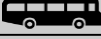




The solution



8 April 2019 - Central London ULEZ



	Euro 3	£12.50
 	Euro 4 petrol or Euro 6 diesel	£12.50
 	Euro VI	£100
 	Euro IV PM	£200
	Euro 3 PM	£100

The Central London ULEZ

- Started on **8 April 2019**
- Operates in the existing **central London Congestion Charge Zone**
- Operates **24 hours a day, every day of the year**
- **Vehicles must meet strict emission standards** to drive in the central London ULEZ area:
 - Euro 4 for petrol cars and vans
 - Euro 6 for diesel cars and vans
 - Euro 3 for motorcycles and mopeds
 - Euro VI for lorries, buses and coaches
- **Or pay a charge:**
 - £12.50 per day for cars, motorcycles and vans
 - £100 per day for lorries, buses/coaches
- The ULEZ **replaces the Toxicity Charge (T-Charge)** in central London and is in addition to the Congestion Charge.



ULEZ has already had an impact

- **Over 74 per cent of vehicles driving into the zone are now compliant**
- **Around 9,400 fewer polluting vehicles seen in the zone on an average day**
- **Londoners and businesses are using cleaner transport alternatives**



What are your options?

- Buy a compliant vehicle
- Rent or lease a compliant vehicle
- Reduce trips
- Switch to a cleaner form of transport
- Pay the daily charge



Mitigating actions

We are implementing measures to mitigate the impact of ULEZ on van operators in particular:

- **Scrappage:**
 - The Mayor announced £48m scrappage schemes: micro-businesses, sole traders and charities now live; low income scheme in development
- **Retrofit emissions abatement:**
 - Working with manufacturers of retrofit equipment to help bring a solution to market for vans
- **Used vehicles:**
 - Providing information and signposting about the availability of used Euro 6 and plug-in vehicles



The BVRLA @bvrla · Feb 22

"The @MayorofLondon's van **scrappage** scheme will provide vital and timely assistance for #SME's that need to upgrade their vans ahead of the London #ULEZ being introduced on 8th April." - BVRLA Chief Executive, Gerry Keaney. bit.ly/2SQhNOZ #VanScrappage #AirQuality



BVRLA

“The Mayor of London's van scrappage scheme will provide vital and timely assistance for SME's that need to upgrade their vans ahead of the London ULEZ being introduced on 8th April. London has set an ambitious timeline for its clean air zone and the Mayor has recognised the fact that some businesses will need financial support in upgrading their vehicles.”

Gerry Keaney
Chief Executive, BVRLA

Air Quality &

Jemima Vivien liked



Feryal Clark @feryaldemirci · Mar 1

Great leadership from MoL on tackling #airpolution The **scrappage** scheme is such a great opportunity for micro-businesses to make the change to cleaner vehicles. We now need @GOVUK to stop procrastinating & fund a national **scrappage** scheme
@HackneyBusiness #ULEZ #cleanair



Zero Emissions Ntwk @ZENCityfringe · Mar 14

Ahead of the #ULEZ the @MayorofLondon announces a **scrappage** scheme for the most polluting vans in order to help clean up London's poor #airquality bit.ly/2J5u5xM #LetLondonBreathe



London Borough of Hounslow

SELECT LANGUAGE

ACCESSIBILITY

ACCOUNT

SEARCH

Home / Latest news / Businesses to benefit from Mayor of London's £23m van 'scrap for cash' fund in advance of ULEZ

Businesses to benefit from Mayor of London's £23m van 'scrap for cash' fund in advance of ULEZ

The Mayor of London has opened his scrappage fund to help microbusinesses and charities scrap their older, more polluting vans and minibuses to switch to cleaner vehicles

Published: Tuesday, 26th February 2019

NEWS ARCHIVE

RSS FEED

The introduction of the 24 hour, seven-days-a-week Ultra Low Emission Zone begins in central London on the 8 April.



around half of air



Beadles VW Vans Dartford @VWVansDartford · Dec 4

Do you travel within the ULEZ zone in your van? If so you could save up to £720 a month in charges when you're in a new Volkswagen van from Beadles – they're all Euro 6 standard!

To find out more contact #Beadles #Volkswagen today or click here: bit.ly/2QbXQQP

Does your van meet ULEZ standards?



Share, Like, Comment icons



FSB Greater London @FSBGtrLondon · Mar 8

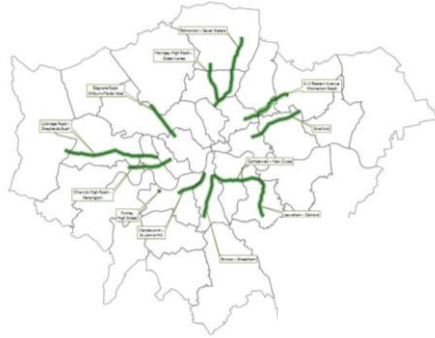
In one month today the #ULEZ will be in operation - Is your business prepared? And can you take advantage of the diesel **scrappage** scheme tfl.gov.uk/modes/driving/... - DM us if you would like to be a media case study

Share, Like, Comment icons



What else are we doing?

Low Emission Bus Zones



Cleaning up our bus fleet



Cleaning up our taxi fleet



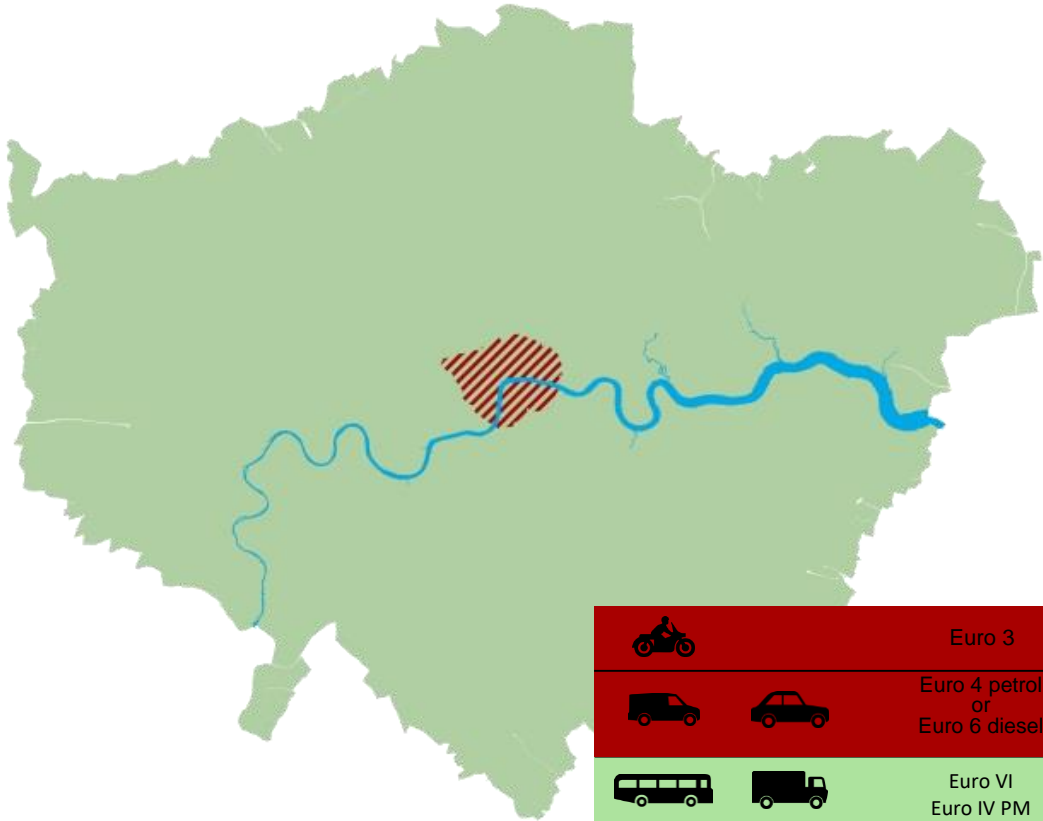
EV infrastructure









Next steps



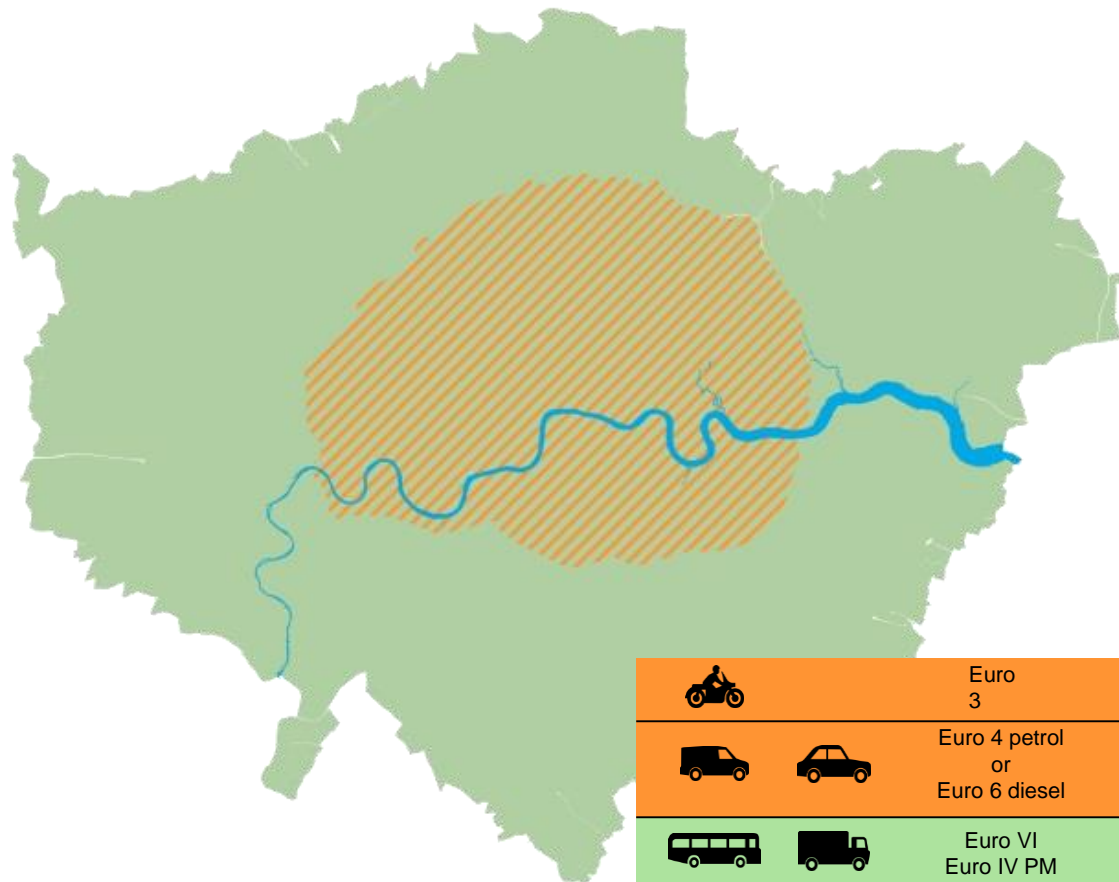
October 2020 – Strengthening of LEZ standards









	Euro 3	£12.50
 	Euro 4 petrol or Euro 6 diesel	£12.50
 	Euro VI Euro IV PM	£100 £300
	Euro 3 PM	£100



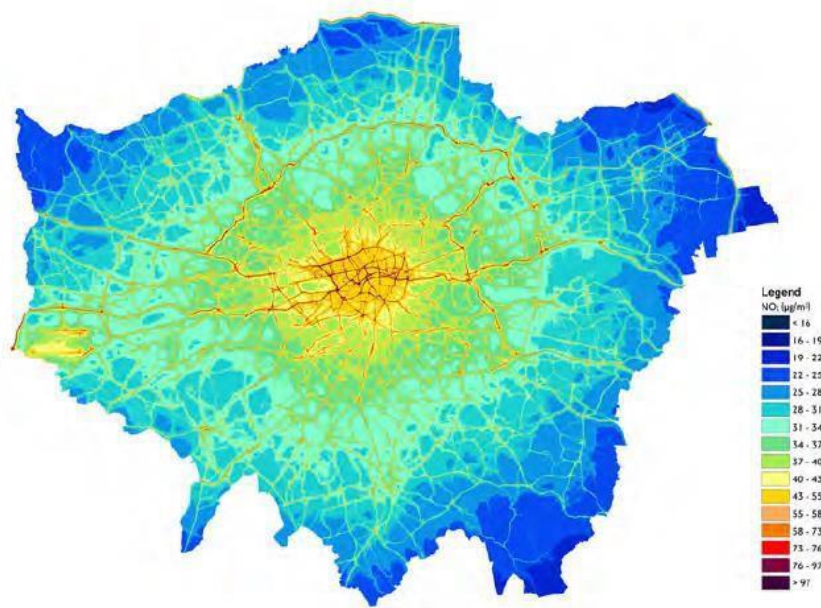
October 2021 – Expansion of ULEZ



	Euro 3	£12.50
 	Euro 4 petrol or Euro 6 diesel	£12.50
 	Euro VI Euro IV PM	£100 £300
	Euro 3 PM	£100

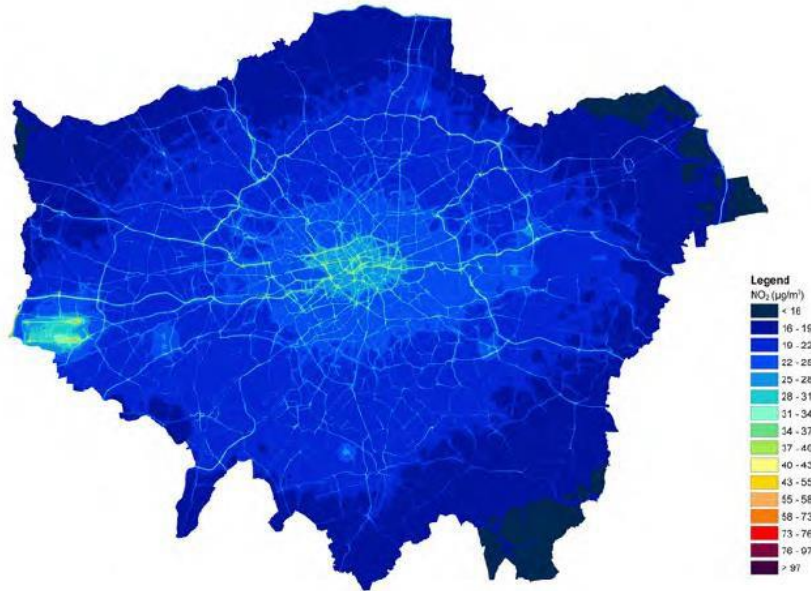


What's the situation like now?



- Over **2 million Londoners** live in areas that exceed legal limits for NO₂, of which over 400,000 are children under the age of 18.
- **Over 400 primary and secondary schools** in areas that exceed legal air quality limits
- In 2013, **90-100%** of major roads in inner and central London (and 49% in outer London) exceeding NO₂ limit

What will it look like in 2025?



With all air quality package measures implemented:

- **No primary or secondary schools** in areas that exceed legal air quality limits
- **Only 2%** of road kms in London expected to exceed NO₂ limit values
- Gap in air quality between high and low income areas of London **reduced by 71%**.

Emma Slater

Project Manager

Leeds City Council (Sustainable Energy and Air
Quality)

BVRLA

Clean Air Zone update July 2019

Emma Slater



CAZ Background

- 2010 Air Quality Standards Regulation enshrined all EU Air Quality Laws into UK Law.
- In 2015, Leeds named by DEFRA as one of 6 cities which will not be compliant with EU & UK limits of $40\mu\text{g}/\text{m}^3$ for nitrogen dioxide levels by 2020.
- July 2017, Government released Revised National Air Quality Plan naming Leeds as one of 28 cities required to implement a Clean Air Zone.
- Legal context: Client Earth have taken legal action against the Government on 3 occasions (April 2015, November 2016 and February 2018) in each case the court ruled against the Government and plans were deemed insufficient.

*Leeds are now under a Ministerial direction to implement the Clean Air Zone by **6 January 2020***



CAZ B



Compliant vehicles - Large

Vehicle Type	Vehicle Category	Acceptable Emissions Standards
Heavy goods vehicles (HGVs)	N2 / N3	<ul style="list-style-type: none">• Euro VI diesel compression ignition (or more recent)• Euro IV petrol positive ignition (or more recent).• Battery electric vehicle.• Hydrogen fuel cell
Buses / Coaches	M3	<ul style="list-style-type: none">• Euro VI diesel compression ignition (or more recent)• Euro IV petrol positive ignition (or more recent)• Battery electric vehicle• Hydrogen fuel cell
Minibuses	M2 from 2022 (see minibus sunset period)	<ul style="list-style-type: none">• Euro 6 diesel compression ignition (or more recent)• Euro 4 petrol positive ignition (or more recent)• Battery electric vehicle• Hydrogen fuel cell



Compliant vehicles – Taxi and Private Hire

Vehicle Type	Vehicle Category	Acceptable Emissions Standards
Licensed taxi or private hire vehicle, capable of carrying no more than 4 passengers	M1 (if licensed as taxi/private hire vehicle)	<ul style="list-style-type: none"> • Battery electric vehicle • Plug-in petrol hybrid electric vehicle (minimum Euro 4 standard) • Full petrol hybrid vehicle (minimum Euro 4 standard) • Vehicle (minimum Euro 4 standard) retrofitted to run on liquid petroleum gas (subject to UKLPG accredited installs) • Hydrogen fuel cell
Licensed taxi or private hire vehicle, capable of carrying 5 to 8 passengers (see also 8 seater sunset period)	M1 (if licensed as taxi/private hire vehicle)	<ul style="list-style-type: none"> • Euro 6 diesel • Euro 4 petrol (or more recent) • Battery electric vehicle. • Plug-in petrol hybrid electric vehicle (minimum Euro 4 standard) • Full petrol hybrid vehicle (minimum Euro 4 standard) • Vehicle (minimum Euro 4 standard) retrofitted to run on liquid petroleum gas (subject to UKLPG accredited installs) • Hydrogen fuel cell
Executive taxi or Executive private hire vehicle	M1	<ul style="list-style-type: none"> • Euro 6 diesel • Euro 4 petrol (or more recent) • Battery electric vehicle. • Plug-in petrol hybrid electric vehicle (minimum Euro 4 standard) • Full petrol hybrid vehicle (minimum Euro 4 standard) • Vehicle retrofitted to run on liquid petroleum gas (subject to UKLPG accredited installs) • Hydrogen fuel cell



Programme

Milestone	Dates
Consultation Phase 1	2 January – 2 March 2018
Review of Plans/Key Changes	April – June 2018
Executive Board (Final Proposal)	27 June 2018
Consultation Phase 2	28 June – 12 August 2018
Final Executive Board Report	October 2018
Transport Order	November 2018
FBC submitted	December 2018
Scheme Approval	January 2019
Support to affected sectors opens	March 2019
Comms Campaign commences	March 2019
Clean Air Zone Goes Live	TBC

Consultation

- Reached 12,000 in 15 weeks over 2 phases
- Postcards to every address in the proposed boundary
- Public drop in sessions across city
- Targeted events (HGV operators, taxi/private hire trade, headteachers, Youth Council)
- Online profile (Clean Air Leeds, Social Media)
- Signage (billboards, drumsites, bus stops, road signage)

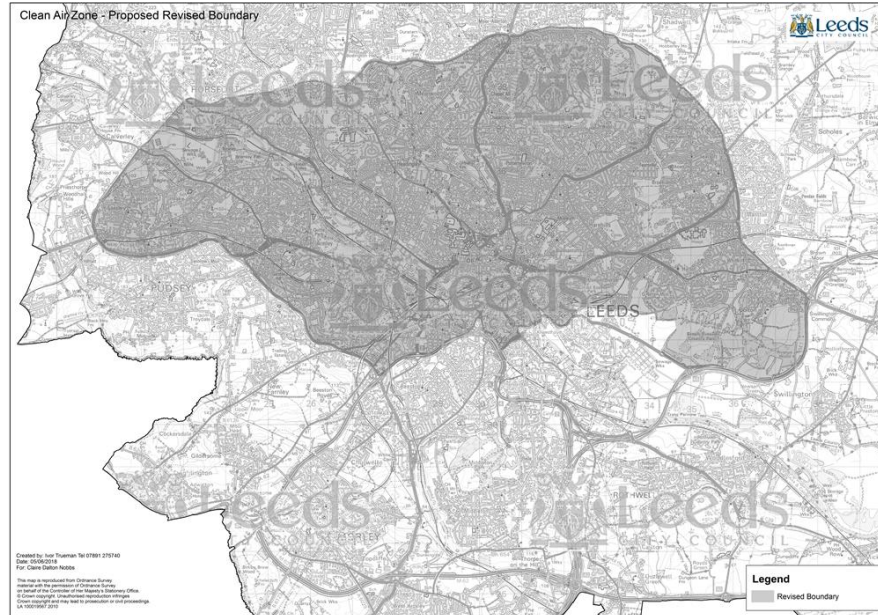


Consultation – Key Changes - Boundary

Initial



Revised



Consultation – Key Changes - Boundary

By reducing the boundary:

- minimal impact on air quality outputs
- compliance is still achieved
- health improvements still delivered across a wider area
- limited displacement
- economic impact is significantly reduced



Consultation – Key Changes - Charges

Vehicle	Daily Charge	
	First Proposal	Revised Proposal
Buses, Coaches and HGVs	£100/ day	£50/ day
Taxi & Private Hire	£12.50/ day	£12.50/ day
	Weekly T&PH charge £50 for Leeds licenced drivers	



Final CAZ Proposal

- £6m Infrastructure / Implementation
- £23m support for affected businesses.
- Revised Boundary including Industrial Exclusion Zones
- Local exemptions including WAVs, showmans guild, etc
- Compliant vehicles (including introduction of LPG for taxis)
- Daily charges (including discounted rate for Leeds licensed drivers)



APPROVED



Implementation Comms Strategy

- Two phase marketing campaign
- Phase One underway. Includes outdoor, radio, print and digital channels.
- Phase Two to commence 1st September 2019, 100 day countdown to go live. In addition to Phase One marketing channels the following activity is planned in:
 - Social media advertising
 - Production of an explanatory promotional video
 - Mass mailouts
 - Text messages
 - Vinyls on the CAZ highways signs.



Infrastructure

- Signage developed nationally – local network delivered in-house
- National Payment Portal & database systems (implemented by government)
- Two rings of ANPR cameras around the city. Capture rate 98% (read rate 95%)
- Payment will be due in advance or by midnight of the day after you enter the zone

Clean air zone
2 miles ahead



Charges apply
Pay online

KC Korfield Council

Clean air

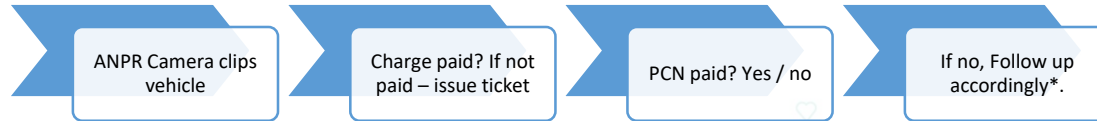


ZONE

Charges apply
Pay online

Enforcement

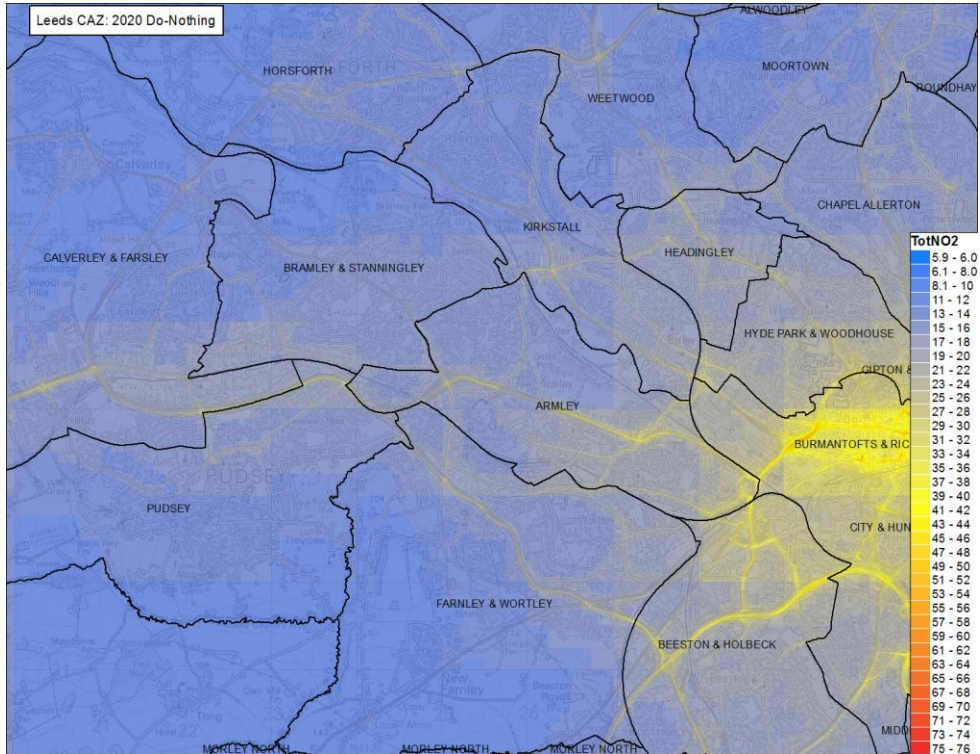
- Any non payment of charge will be enforced locally.
- PCN = £120 within 28 days (or £60 if paid within 14 days).
- Planned approach based on bus lane enforcement



*awaiting legislative guidance



Predicted NO2 in 2020



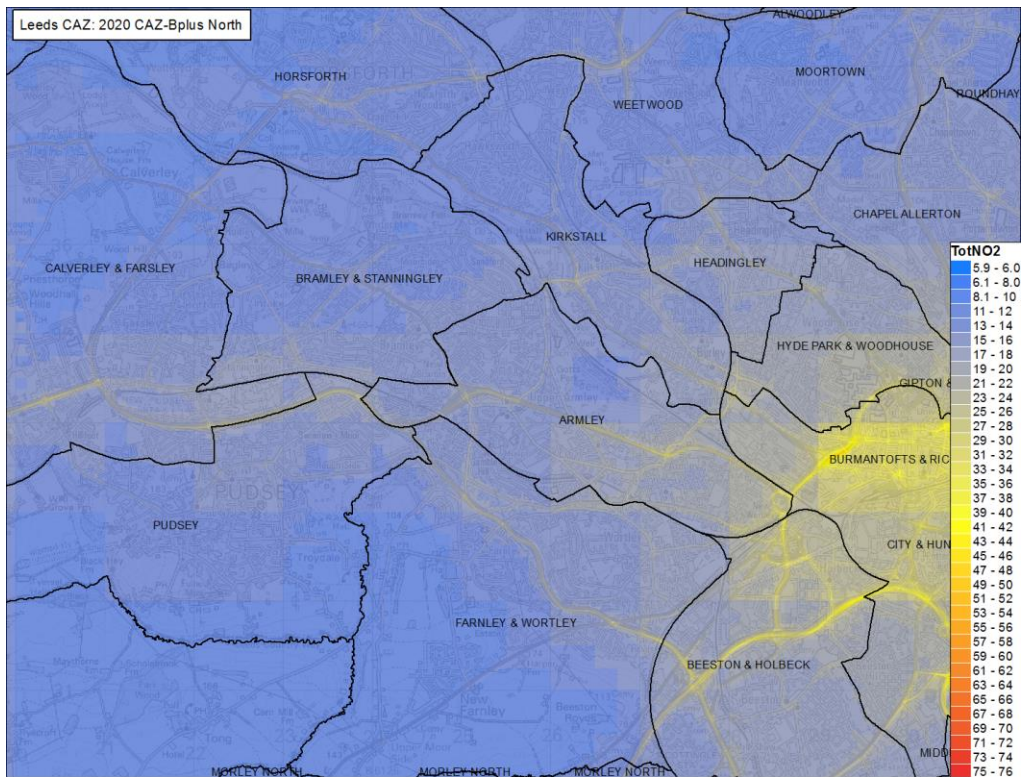
- High levels of NO2 found on the sides of major roads
- Highest level of NO2 found within the City Centre
- The Ring Road generally presents higher levels of NO2 than surrounding areas
- The average levels of NO2 in Bramley are less than $20\mu\text{g}\text{m}^{-3}$

$\mu\text{g}\text{m}^{-3}$ = micrograms per cubic metre

Breathe clean by going green



Predicted NO2 in 2020 with the CAZ



- Noticeable reduction in levels of NO2 in City Centre
- Slight reduction in levels of NO2 along the sides of major roads
- Highest levels of NO2 found on the sides of major roads



Gary Smith

UK Managing Director
Europcar Mobility Group UK

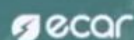
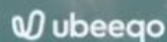
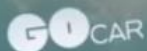
OPEN
MOBILITY.
FOR ALL.



Gary Smith, UK Managing Director
Europcar Mobility Group UK



OPEN MOBILITY. FOR ALL.











*MINORITY STAKE







Summary of BVRLA fleet sustainability credentials

							
		Av. Age	Av. CO ₂	Euro 6	Diesel	CAZ Compliance	NCAP 5+ Star
		YEARS	G KM-1	%	%	%	%
 CAR	Rental Fleet	0.6	119	92%	41%	94%	82%
	Lease Cars	2.0	114	75%	76%	75%	88%
	Car Clubs	0.9	103	89%	2%	99%	90%
	Salary Sacrifice	1.5	103	93%	40%	96%	72%
	Cash Allowance	5.6	145	32%	71%	47%	47%
	Grey Fleet	8.1	138	15%	44%	51%	37%
	UK Car Fleet	7.9	144	26%	40%	57%	
 VAN	Rental Fleet	1.7		56%	100%	56%	33%
	Lease Vans	2.5		36%	99%	37%	33%
	Car Clubs (Vans)	0.8		94%	98%	96%	10%
	UK Van Fleet	8.1		13%	97%	13%	

 BVRLA MEMBERS

 WIDER UK FLEET

© BVRLA

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MOBILITY.
FOR ALL.



*MINORITY STAKE