

# Bradford Clean Air Zone (CAZ): Integrated approach to improving emissions & health and creating a platform for economic growth

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# Background

- Bradford is the 7<sup>th</sup> largest city in the UK, forming part of the Leeds Bradford conurbation – 9 miles city centre to city centre
- The District also includes 3 significant towns – Keighley, Shipley and Bingley with areas of outstanding natural beauty – Wuthering Heights and Baildon Moor
- Major transformation programmes – UK City of Culture 2025, City Centre pedestrianisation, new railway station, mass transit, new sustainable City Market, City Park & Village, District Heat Network and Hydrogen Production
- Ministerial Direction in 2018 to improve air quality (Nitrogen Dioxide) in the shortest possible timeframe
- Integrated approach to reducing emissions, improving health and creating a platform for clean growth





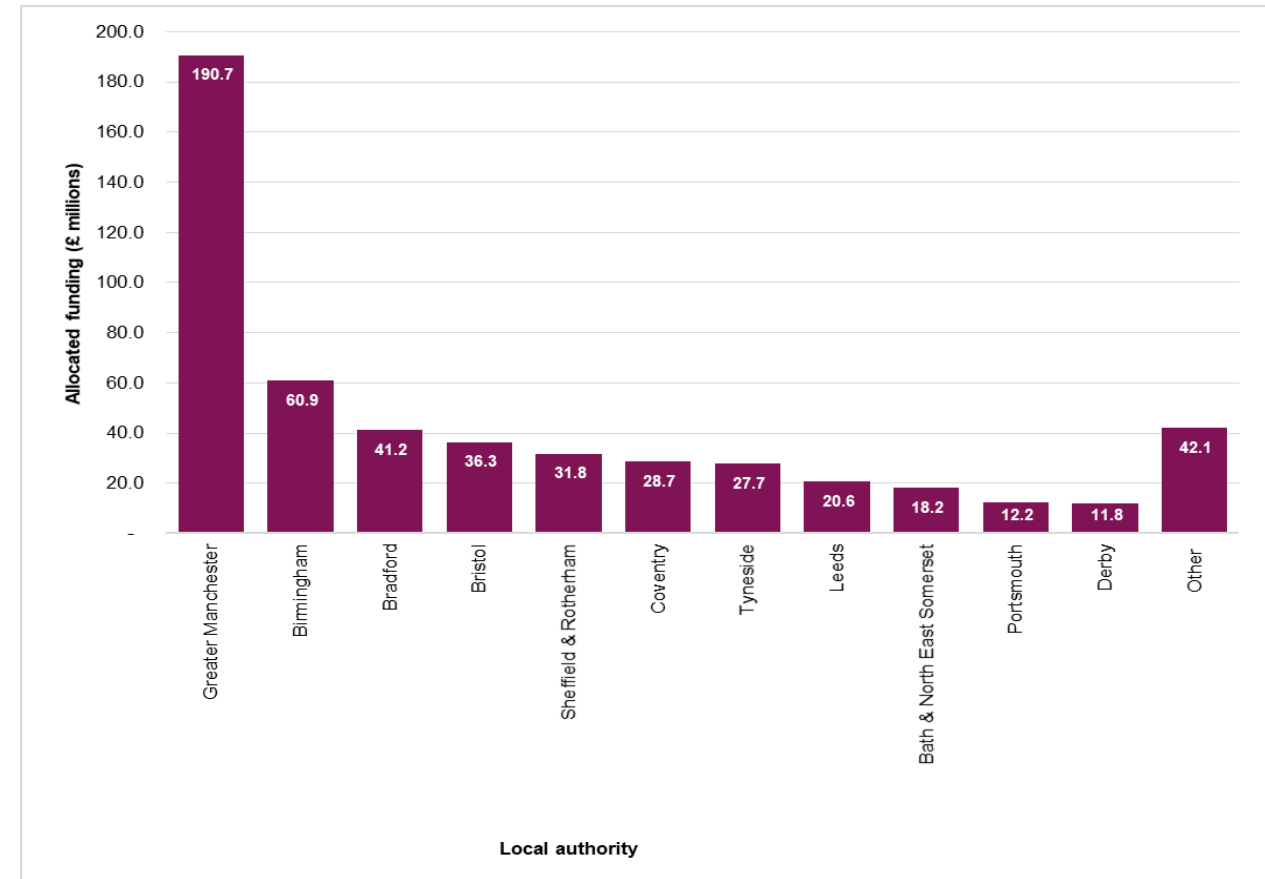


Bradford City Centre Model 2018  
- Red legal limit of 40ugm3 and above



# Bradford CAZ

- 2<sup>nd</sup> Ministerial Direction February 2020 to implement CAZ C(+)
- Highest level of funding for CAZ type (National Audit Office)
- 2<sup>nd</sup> largest road user charging scheme in UK – 24 sqkm
- 16km new digital ducting, 360 ANPR cameras, 3,700 signs
- Lowest cost to implement (£2.5m) and delivered & operated in-house
- Successfully implemented on 26<sup>th</sup> September 2022





# Clean Air Zones



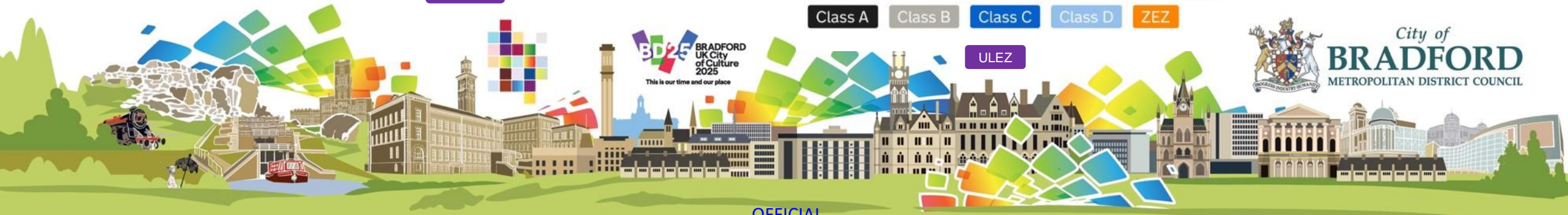
Class A Class B Class C Class D ZEZ

ULEZ



Class A Class B Class C Class D ZEZ

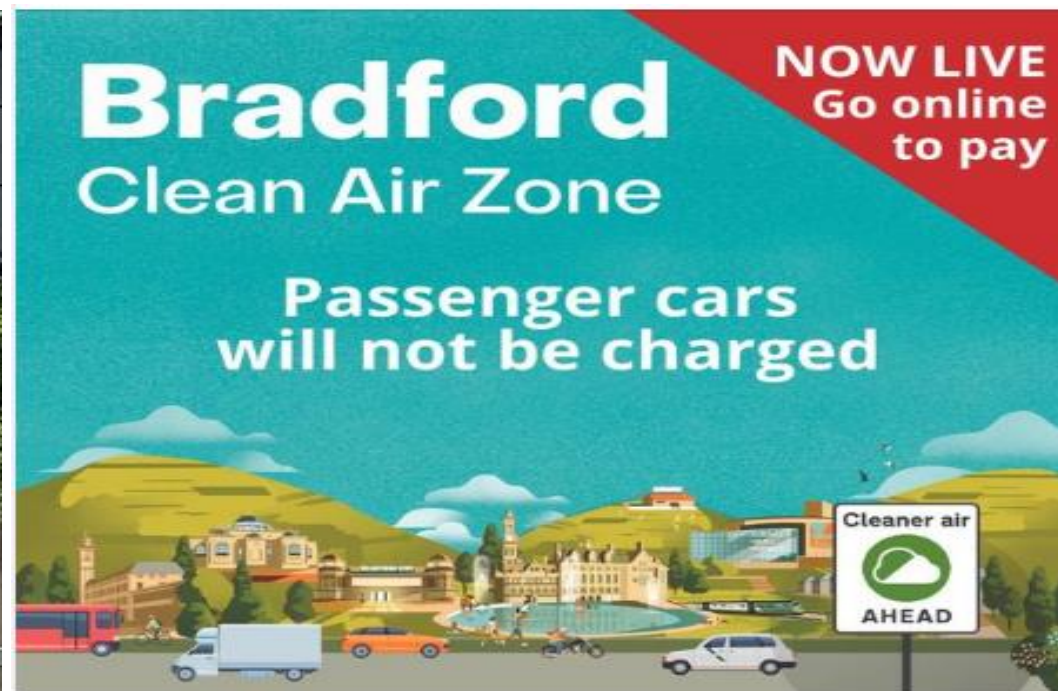
ULEZ



# Bradford Clean Air Zone







- One hour drive publicity – radio, TV, media (inc. social), motorway/A/B road VMS
- No national campaign – decision by No.10
- <https://www.bradford.gov.uk/breathe-better-bradford/breathe-better-bradford//https://www.gov.uk/clean-air-zones>



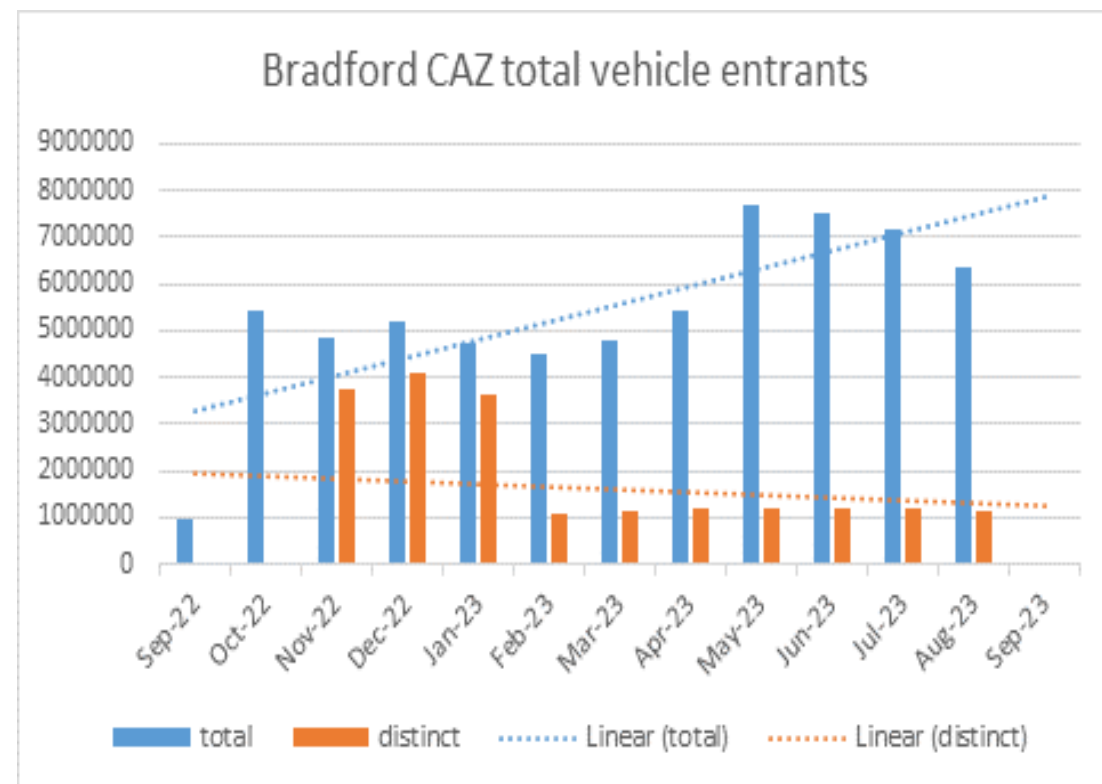
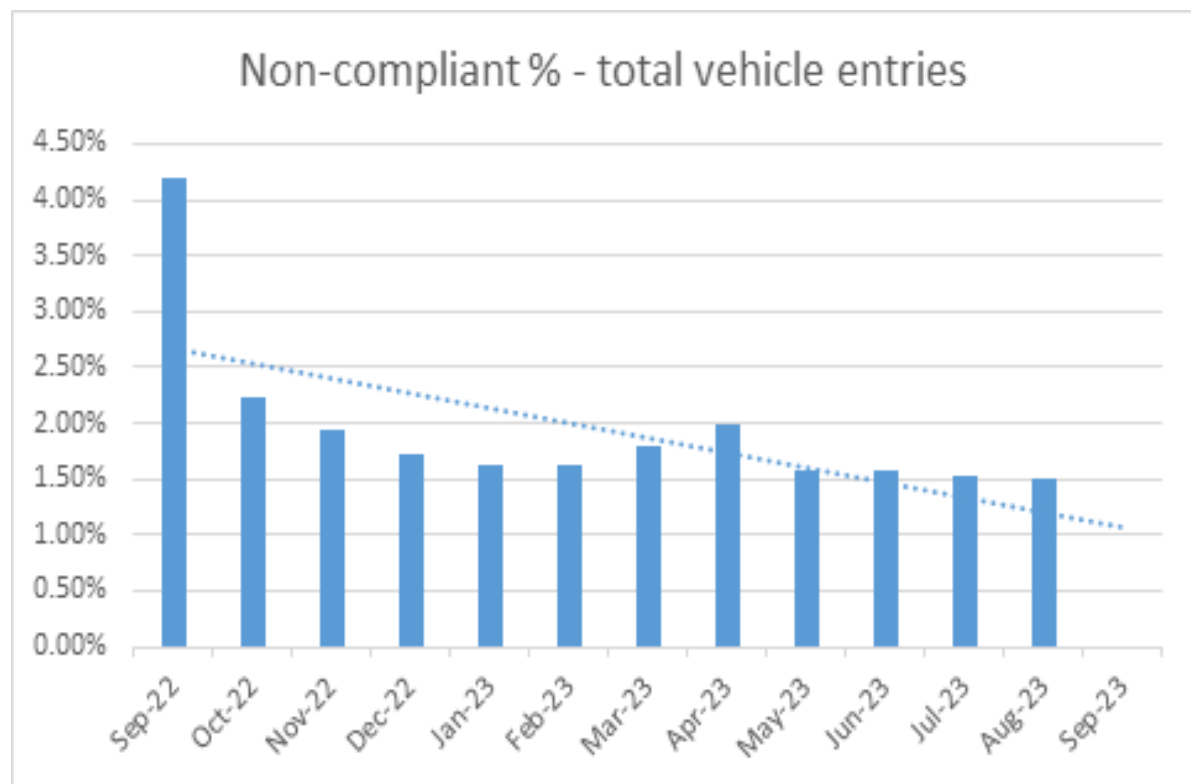
# Bradford CAZ

- £32m Clean Air Grant Funding
- 85% of all scheduled and tendered bus services upgraded to CAZ standard (or maybe not!)
- 317 HGVs upgraded (20%)
- 1,500 LGVs upgraded (10%)
- 99% of 5,000 licensed taxis compliant (electric hybrid) with 500 electric – cleanest taxi fleet in the UK
- District wide Exemption Programme (10,000 exemptions)
- Reduction in greenhouse gas emissions of 150,000 tonnes
- 70% public support, 65% business support

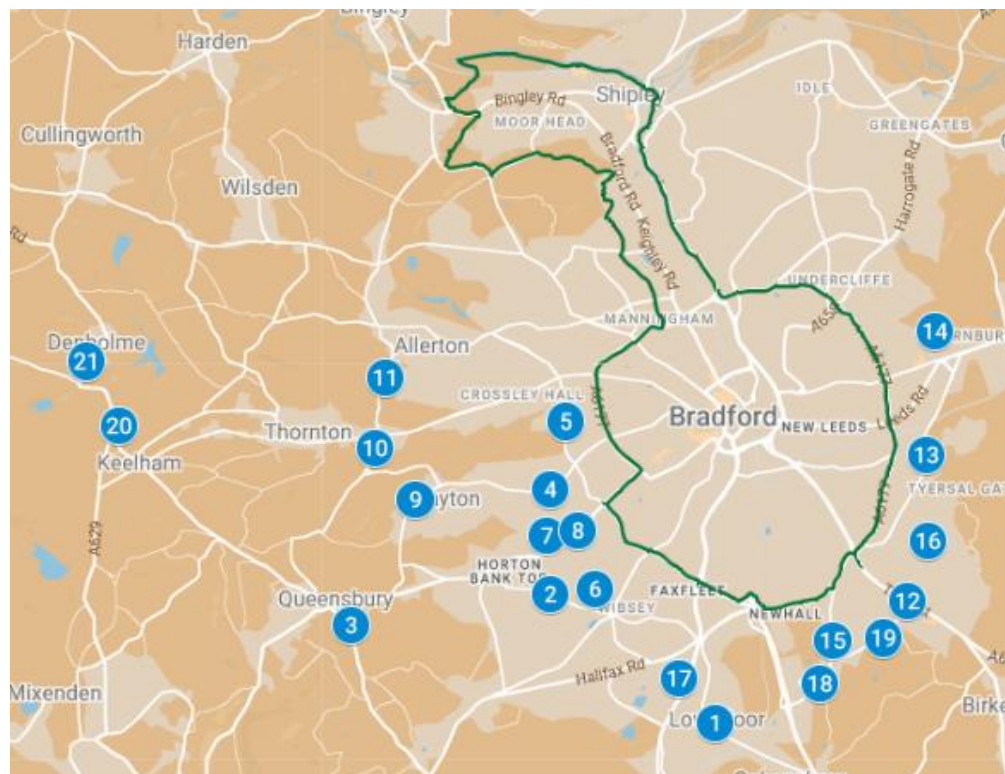




# CAZ Vehicle Entry Data



# Displacement Data – Traffic Monitoring



Site	Location	Post CAZ - Nov	
		avg % commercial	+/- % change avg % commercial vehicles (against pre-CAZ Baseline)
Site 1	Cleckheaton Road	23.03%	-0.50%
Site 2	Beacon Road	16.37%	-0.17%
Site 3	Brighouse & Denholme Road	18.07%	+0.68 *
Site 4	Clayton Road	10.11%	-0.55%
Site 5	Cemetery Road	11.52%	-0.01%
Site 6	Moore Avenue	10.42%	-0.79%
Site 7	Hollybank Road	8.97%	-1.01%
Site 8	Gt Horton Road	8.95%	-0.25%
Site 9	The Avenue	13.65%	-0.96%
Site 10	Chat Hill Road	12.91%	-0.35%
Site 11	Allerton Lane	13.41%	-1.25%
Site 12	Tong Street	23.42%	-0.66%
Site 13	Dick Lane	14.66%	-1.50%
Site 14	Gain Lane	10.96%	-1.12%
Site 15	Bierley Lane	14.63%	-1.01%
Site 16	Broadstone Way		Camera stolen **
Site 17	Netherlands Avenue	9.80%	-1.96%
Site 18	Rockhill Lane		Camera stolen **
Site 19	Shetcliffe Lane		Camera stolen **
Site 20	Brighouse Rd		Road Closure
Site 21	Main Road, Denholme	20.91%	-0.51%

October data only camera stolen in November

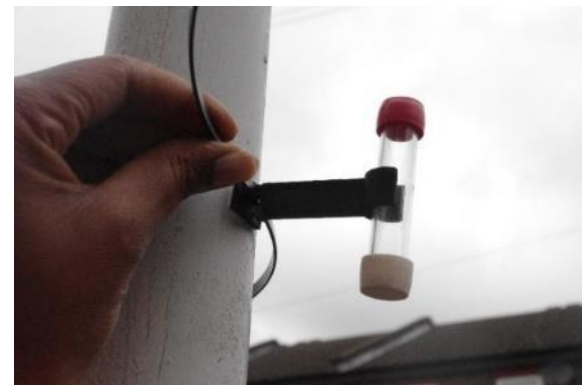
\*The Police have made an arrest following the theft of cameras



# Monitoring Air Quality



[Air Quality in the United Kingdom \(ukairquality.net\)](http://ukairquality.net)



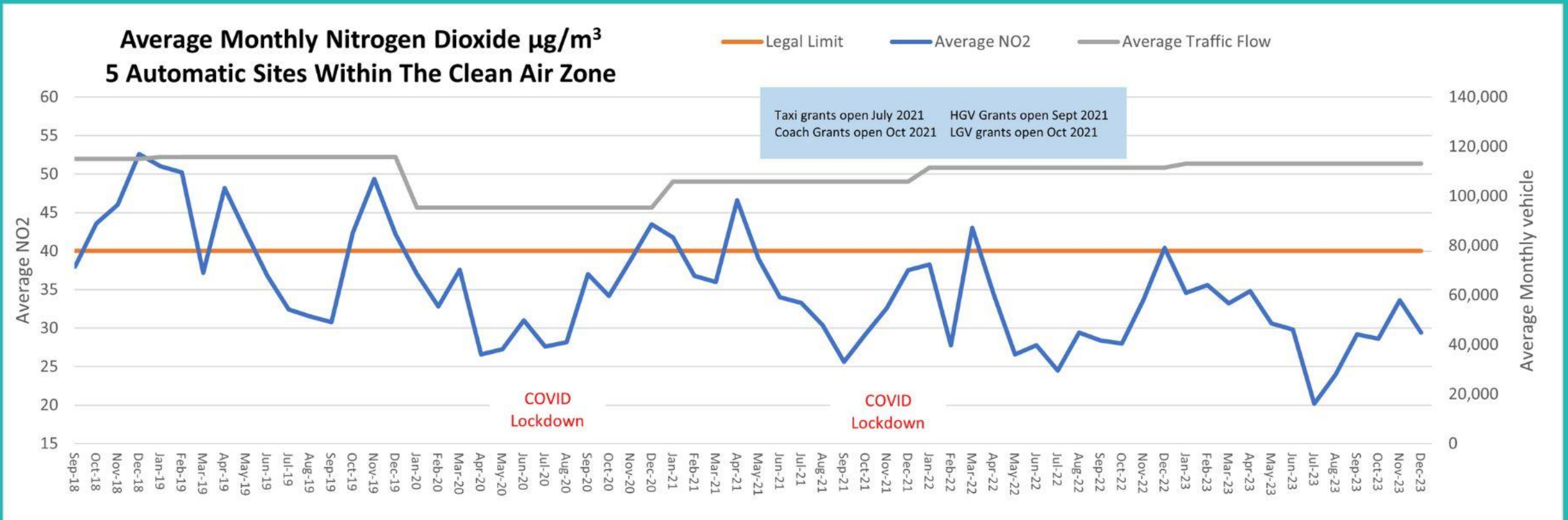
Annual Status Reporting since 2000

[Review and Assessment of Air Quality in the Bradford Metropolitan District | Bradford Council](#)



# Air Quality Data

Data has been collected at air quality monitoring sites inside the CAZ.



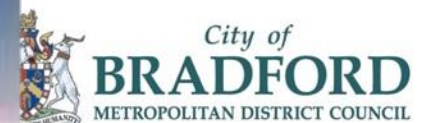
**Lowest levels of NO2 recorded since the CAZ was implemented**



# Bringing the evidence and telling the (local) story



Chief Medical Officer's  
Annual Report 2022  
Air pollution



ESCAP

**PHENOTYPE**  
Health from outside in

**HELIX**

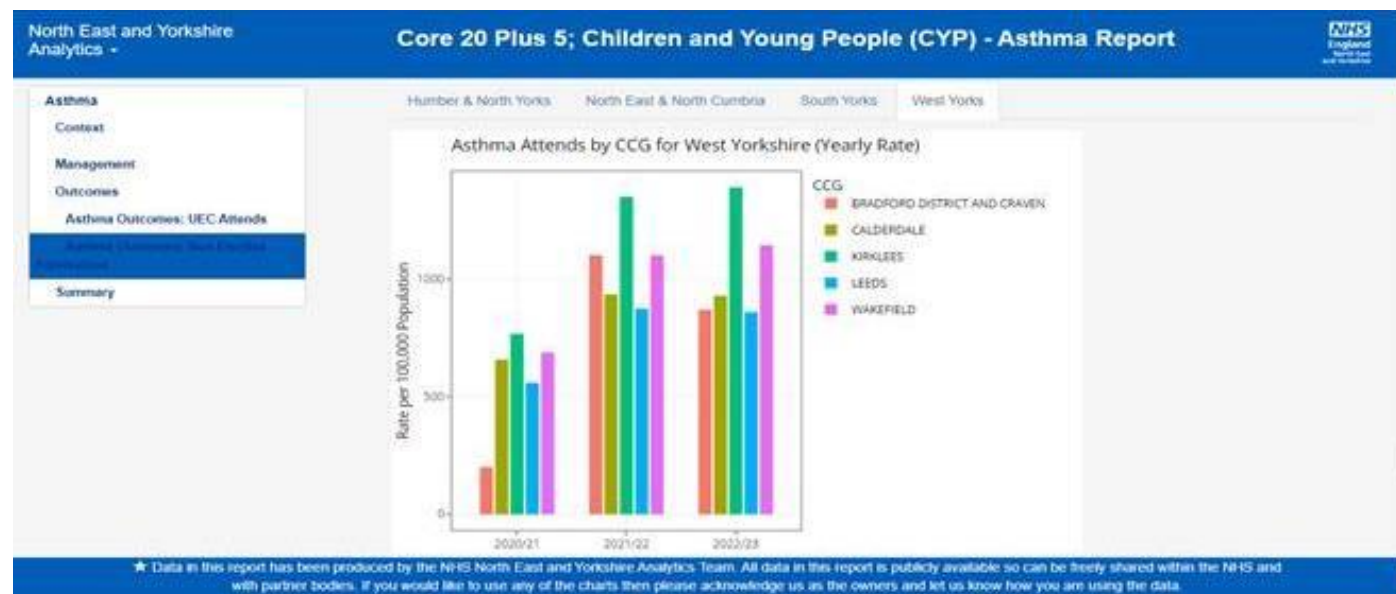
**ATHLETIC**  
The Exposome from Evidence to



# What health benefits are we seeing

Emerging Health Data indicates reduction in admissions to hospital:

- Small birth weight babies
- Cardiovascular, respiratory disease & COPD
- Asthma
- 1 in 5 children in Bradford had a reported breathing issue
- Effect on chromosomes





# Clean Air Schools Programme

- £500,000 school grants
- School engagement programme
- 5 new School Wardens
- Anti-idling enforcement



## Reducing air pollution at school



### Clean Air Schools Programme grant funding is for.....

activities that have the potential to make a meaningful and lasting difference to air quality or exposure reduction.



# School Engagement

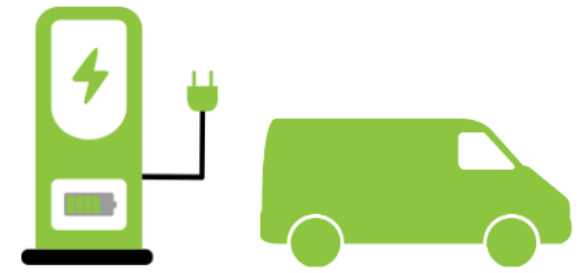
- Winners of the Clean Air competition
- Worked with us to make a video and a dedicated page on their project on our website





# What Else Are We Doing?

- Electric Truck Programme
- HyBradford – largest H2 production facility in UK with £0.5Bn subsidy, sufficient to supply all buses across WY
- City Centre District Heat Network
- City Centre Pedestrianisation, New Railway Station, Cycle Super Highways
- Particle reduction strategy and wood burning campaign
- Local Industrial Decarbonisation Programme – industrial emission reduction across 5 most polluting sectors
- Renewable energy on Council estate solar/wind, street lighting





# Hydrogen Mobility Programme





# Any questions?

