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Date 29th July 2022
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Dear Sir/Madam,

Thank you for the opportunity to comment on the Transport for London Ultra-Low Emission Zone (ULEZ) consultation.

The Council is fully committed to improving air quality across the borough and recognises the importance of good air quality and the benefits this can bring to its residents. Poor air quality has a direct impact on the health and wellbeing of our residents, workers, commuters and visitors, and so improving Havering's air quality is a high priority for the new Administration.

Having said that, whilst the Council is fully committed to improving air quality, tackling climate change, and has a clear commitment to delivering a net zero borough by 2040, the proposal to extend the Ultra-Low Emission Zone is nothing more than a regressive flat-rate tax which will impact many hard working families, already struggling to make ends meet due to the cost of living crisis.

Expanding the Ultra-Low Emission Zone is not considered the strategic solution required for outer London. The Council is therefore **objecting** to the proposed ULEZ extension and this response sets out the reasons for this. Should the Mayor decide to ignore Havering's objections and the impact such a proposal would have on residents and businesses, mitigation measures have been suggested that the Council would urge the Mayor to deliver prior to any ULEZ extension coming into operation.

Officers have reviewed the consultation material and would like to offer the following comments:

Havering's commitments to improving air quality

Over recent years the Council has been working hard to reduce emissions across the borough. In Havering, net CO_2 emissions have decreased by an average of 35% across all main sectors since 2005.

The Council is currently in the process of refreshing its adopted Air Quality Action Plan (2018-2023). The AQAP sets out programmes and projects to be implemented over a five year period to

improve local air quality, and reduce key pollutants Nitrogen Dioxide (NO_2) and Particulate Matter (PM_{10} and $PM_{2.5}$).

Since 2006 the entire borough of Havering has been designated an Air Quality Management Area (AQMA) for NO_2 levels. There are many areas in Havering with good air quality, there are also some “hotspots” of poor air quality which the Council acknowledges needs to be addressed. The GLA has designated “Air Quality Focus Areas” across London which are locations identified as being in need of significant investment to improve air quality. Two Air Quality Focus Areas have been identified in Havering, Romford Town Centre and Broadway in Rainham. Additionally Gallows Corner is also a location in Havering with poor air quality.

Last year the Council adopted a Climate Change Action Plan setting out how the borough would become carbon neutral by 2040 or sooner. The Action Plan sets out a series of commitments to working towards this goal. This includes the development of a Cycling and Walking Strategy, and an Electric Vehicle Charging Point Strategy.

The Council is also committed to upgrading its own transport fleet with more fuel efficient and environmentally-friendly alternatives. Twenty nine vehicles are currently being procured. Out of these, 27 will be ultra-low emission vehicle ICE engines and the other two will be fully electric. The procurement process should be complete by July 2023. The Council is also looking to replace its Ground Maintenance fleet of vehicles which will become a mixture of fully electric and hybrid vehicles. A procurement process will follow later this year.

Policy 23 *Transport Connections* of Havering’s adopted Local Plan sets out the Council’s commitment to promoting sustainable forms of travel and providing alternative options to travel other than the car. Policy 33 *Air Quality* commits the Council to support development that is at least air quality neutral and that meets the targets for carbon dioxide reduction in the London Plan.

Havering’s adopted Local Implementation Plan (LIP) contains targets for reducing the levels of CO_2, Nitrogen Oxides (NO_X) and Particulate Matter ($PM_{2.5}$ and PM_{10}) in the borough by 2041.

The Council is committed to reducing single occupancy car use in the borough and encouraging residents to travel by alternative modes. Havering has a target within its Local Implementation Plan for 65% of residents to be walking, cycling or using public transport by 2041.

Historically, using funding available through the Local Implementation Plan from TfL, the Council has continued to deliver schemes and initiatives that support improving air quality and contribute to reducing vehicle emissions in the borough. The Council works closely with schools in the borough to develop School Travel Plans and this has seen car use on journeys to and from school reduced from a 2009 figure of 39% down to 20% in 2022.

The Council also recognises that many residents use different forms of transport for different types of journeys and that some residents require a car for their everyday needs. To support this need whilst working towards our Climate Change and Air Quality Action Plan commitments, the Council is set to deliver almost 150 Electric Vehicle Charging Points across the borough by the end of the financial year. This will see 68 charging points installed across car parks and a further 80 charging points installed at on-street locations across Havering.

<u>Consultation Material</u>

It is unacceptable that TfL have been unable to provide stakeholders with a full suite of data in order for Local Authorities to take a comprehensive view on the proposals.

Ever since the launch of the public consultation, Havering has requested data from TfL on the number and type of non-compliant vehicles owned in the borough. Havering is aware that other outer London boroughs have made similar requests.

The consultation material suggests that 82% of vehicles in outer London are already ULEZ compliant. However, TfL to date have been unable to provide Havering with information on the number and types of vehicles based in the borough that are not ULEZ compliant. This has culminated in a final response from TfL to Havering on 26th July confirming that this information would not be available.

Furthermore, the consultation states that a “grace” period will be in place for a period of time for drivers who are registered with the DVLA as “disabled” and “disabled passenger” tax class vehicles. There are 9,447 blue badge holders in Havering. It would have been helpful if TfL had been able to provide the Council with data on the number of blue badge holders in the borough that are registered within this tax bracket.

TfL should have had information such as this prepared and available to boroughs ahead of the consultation launch as it is critical for boroughs to be able to understand the impact the proposals will have on different demographics in Havering.

Emissions across London

The Council is surprised that the Mayor sees expanding the ULEZ to outer London as the main solution of tackling the Capital’s air quality challenges, when the data clearly shows it is inner and central London where emissions levels remain far worse.

The consultation material TfL have provided sets out the existing position on emission levels for London as a whole. This shows that all London residents live in areas that are within the $PM_{2.5}$ UK legal limits (25 µg/m^3) as shown in figure 1 on the following page. This map also shows that the main areas of London that sit within areas exceeding the lowest World Health Organisation interim target of 10 µg/m^3 are mostly in inner and central London. Significant parts of outer London including the majority of Havering have residents living in areas that are below this concentration level.

There is a similar position in relation to annual mean NO_2 concentrations. In 2019 areas of London exceeding UK legal limits were in central London, with the concentrations of NO_2 exceeding the WHO’s interim target of 30 µg/m^3 largely in central and inner London, with NO_2 concentrations significantly higher than outer London.

Figure 2 on the following page shows NO_2 emission concentrations across London in 2019. The main source of NO_2 emissions is from vehicles. This clearly shows that the higher concentrations, despite the implementation of the Congestion Charge, LEZ and ULEZ, remain in central and inner London.

Figure 1: Annual mean $PM_{2.5}$ concentrations, 2019 – Source LAEI

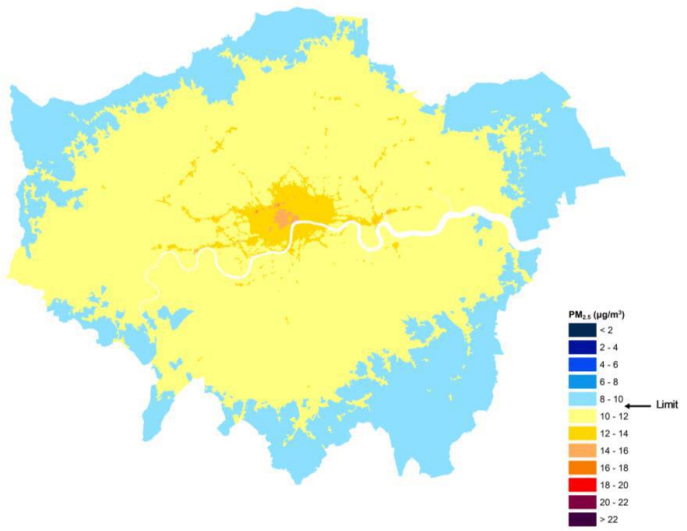
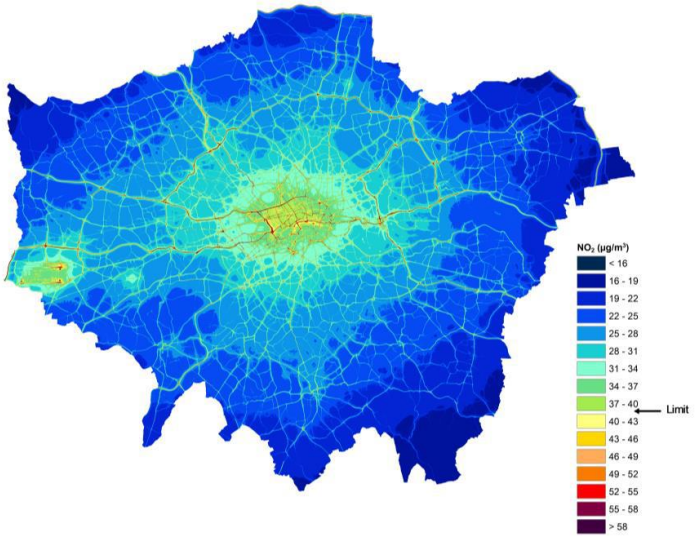


Figure 2: Annual mean NO_2 concentrations, 2019 – Source LAEI



In addition to the maps above, Appendix A shows concentration levels for four main vehicle emissions NO_2, NO_x, $PM_{2.5}$ and PM_{10} per London Borough taken from the *London Health Burden of Current Air Pollution and Future Health Benefits of Mayoral Air Quality Policies* report by Imperial College London. This shows that higher concentration levels are mostly within inner and central London boroughs, with outer London boroughs at much lower levels. LB Havering has the lowest levels of emissions.

Whilst Havering fully supports the need to reduce vehicle emissions, the data demonstrates that the Mayor must focus his efforts on reducing vehicle emissions further in the central London areas as a priority rather than extending the ULEZ out to the GLA boundary.

Current emission levels in outer London compared with inner and central London indicates the proposed expansion of the Ultra-Low Emission Zone (ULEZ) is not the most appropriate way of tackling the Capital's air quality challenges.

The Council urges the Mayor in the strongest possible terms not to implement the ULEZ expansion, and to instead focus on connectivity enhancements in outer London boroughs that will encourage residents to use other forms of transport.

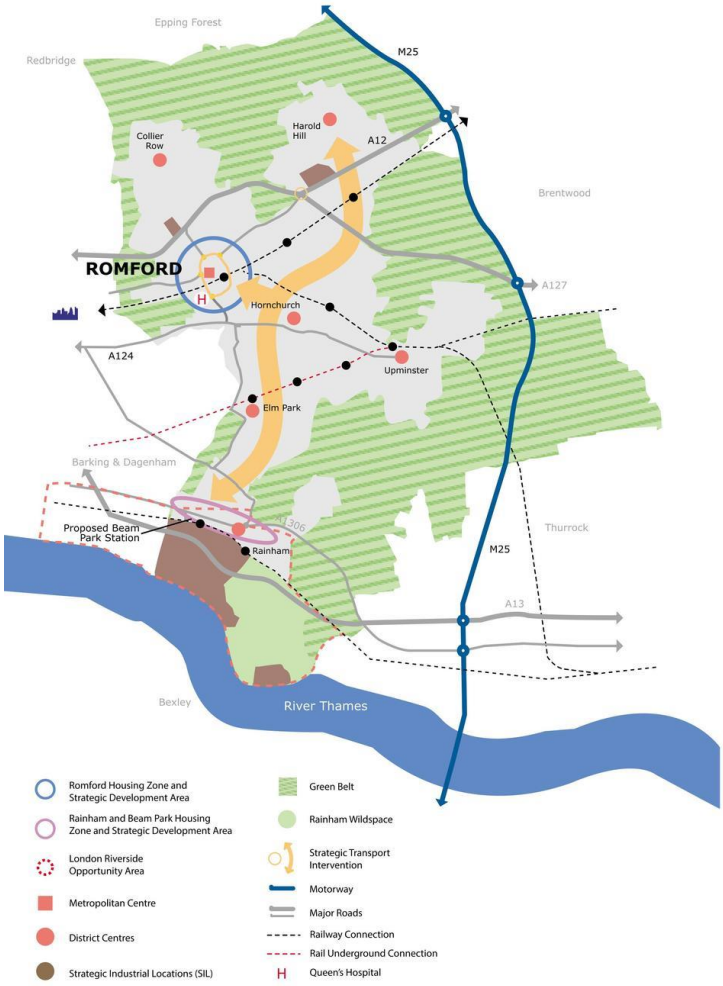
This should include the following:

- Any revenue that is generated from an expanded ULEZ should be reinvested in public transport infrastructure in outer London

Havering has good east-west public transport connections, with A12, A127 and A13 forming part of the TLRN, the District Line, two mainline Railways (Great Eastern Mainline and Essex Thameside), TfL Rail, London Overground as well as over 30 bus routes.

In Havering around 57% of residents travel by car with 21% travelling by public transport. A key factor in such a high figure for car use is that north-south public transport connectivity in the borough is very poor, so residents wishing to travel from Rainham for example to Romford or further north have little option but to travel by private vehicle. This is reflected in the very low Public Transport Accessibility Level (PTAL) scores in areas such as Rainham, South Hornchurch and Harold Hill have compared to key centres such as Romford and Upminster.

Havering's adopted Local Plan includes an illustration of the spatial strategy for the borough over the lifetime of the plan. The map shows the very good east-west connections the borough has both through public transport and the Strategic Road Network, but that north-south connectivity is severely limited.



LB Havering has a long standing aspiration to deliver a new public transport route linking Rainham, Romford and further to the north providing connections into Collier Row and Harold Hill. As a result of support through the Local Implementation Plan (LIP) programme, initial “high level” feasibility work has been carried out to identify a potential new public transport route to connect the north and south of the borough. Such a rapid transit or tram link would improve access to Havering’s emerging two housing Zones in Romford, Rainham and Beam Park, linking into existing infrastructure on the Romford to Upminster Push and Pull as well as connections further north. Whilst this work is at an early stage, the Council is strongly of the view that a new public transport link such as this is key if the Council is to achieve its target of 65% of residents walking, cycling or using public transport by 2041 and therefore contributing to the Mayor’s overall modal shift ambition for London.

Havering has two Business Improvement Districts (BID), the Romford BID and the London Riverside BID. The Council has lobbied TfL over many years to improve bus connectivity in the south of the borough, particular through to the London Riverside BID where staff have little option but to travel to work by car. This has resulted in real challenges for the BID in terms of staff retention. If the ULEZ is to be implemented this will force many staff to consider working outside of the borough to avoid the cost of changing their vehicle or having to pay a daily £12.50 charge simply to get to work.

As you will be aware, the Council is working closely with the GLA and Transport for London to ensure a Station at Beam Park is delivered.

The station is of critical importance to the wider Beam Park area. It will be located amongst a 29 hectare former industrial site where over 3,000 new homes are to be delivered, two new primary schools, and various retail and leisure uses.

The new station will be critical to unlocking housing in the Beam Park development and wider area and will deliver a range of socio-economic benefits to the area and wider sub-region including the Thames Freeport.

The Council welcomes the support the Mayor and his agencies have provided to date in the discussions that have been held with the Department for Transport on this matter. However, this needs to be backed up by a strong commitment to ensuring the station is fully accessible by all modes of transport, both from the immediate vicinity and wider area.

Aside from the local Beam Park point, the ULEZ will also reduce the attractiveness of the area for investors and development. The area has challenges at the moment, not least the lack of a mobile workforce who currently have to depend on the car for mobility. With no affordable options, the ULEZ will further penalise this community.

A new rail station and improved public transport must be a pre-cursor to the ULEZ implementation. Implemented in this order this will help to address the connectivity problems the region faces, and help to attract investment. This will unlock the associated regenerative benefits such as more higher skilled workers and jobs available (and spending in the local area). It will also be key in enabling access to the BID area which is home for 450 businesses and employs around 5000 people. Without this transport node there is not a viable point of access which is curtailing inward investment and growth.

For the Mayor to be considering the expansion of the Ultra-Low Emission Zone without ensuring that there is suitable public transport alternatives in place for local residents is not only reckless but deeply irresponsible. If the Mayor chooses to ignore Havering’s representation and progresses with the ULEZ, it should not be delivered <u>until Beam Park station is in operation</u>.

The Council fully expects the Mayor to reinvest any revenues that are generated from non-compliant vehicles back into public transport infrastructure in outer London. This investment should

begin before any expansion of the ULEZ and should be an absolute commitment within an updated Mayor's Transport Strategy.

- Lobby for Local Implementation Plan (LIP) funding so boroughs like Havering can deliver transport schemes that support walking, cycling and assisting people to use public transport

Whilst it is recognised that TfL are under a great deal of financial pressure, supporting London boroughs with funding through the Local Implementation Plan programme would greatly assist with providing residents the infrastructure to support making local journeys sustainably.

It is extremely frustrating that the Mayor expects local authorities to work towards delivering targets for improving air quality and encouraging sustainable travel but over the last two years has been unable to support boroughs delivering on their programmes.

- Expansion of the Electric Vehicle Bus Fleet in Havering

On review of TfL's latest fleet audit (carried out on March 2022) out of a fleet total of 8,795 busses operating in the Capital, 785 of those are Electric, 3,845 Hybrid, 22 Fuel Cell and 4,134 are Diesel. Whilst it is noted that all buses operating in London are compliant with ULEZ standards, the Mayor has prioritised the electrification of the bus fleet operating in central London at the expense of outer London boroughs. Indeed, the Mayor has gone further on occasions and redistributed older less environmentally friendly busses from central London to outer London contributing to poor air quality in key centres with bus interchanges such as Romford town centre, designated by the GLA as an air quality "hotspot".

Whilst the Mayor is committed to converting the whole bus fleet to electric by 2034, if the ULEZ is to be expanded this needs to be accelerated and for outer London boroughs to benefit from this expansion of fleet.

Impact on local residents and businesses

Many people working in Havering, whether they live in the borough or travel in from outside, rely on their vehicle for their daily commute.

There are several occupations in Havering where people need a car in order to do their jobs. A few examples are set out below:

- There are 9,733 jobs in the *Caring, Leisure and Other Service* occupations
- There are 6,804 jobs in the *Skilled Trades* occupations
- There are 398 *Plumbers Heating and Ventilator engineers*, *813 Electrician and Electrical Fitters*, and 68 *Plasterer* jobs in the borough.

Some of these roles will have modest incomes, for example the median wage for people in the *caring, leisure and other service occupations* is £18,043.75. Many people employed in these jobs will rely on a private vehicle to travel to customers. For many people, having to pay a daily figure of £12.50 on top of the cost of living and other pressures will simply not be possible. The Mayor should be considering the impact an additional financial pressure will have on Londoners mental health and wellbeing.

There is little detail available at the present time on how the Mayor plans to implement a Vehicle Scrappage scheme for residents in the expanded ULEZ. It is extremely important that further information is made available as to who would qualify for the scrappage scheme so residents can understand what level of support they would get.

Appendices B and C show parts of the borough likely to be most economically impacted by an expanded ULEZ. Appendix B shows fuel poverty across the borough. As this map shows, there are

significant parts, particularly in the north of Havering (Gooshays) and the south (South Hornchurch) with the highest number of households in fuel poverty. In Havering, on average 1 in 10 households cannot afford to heat their homes. In some areas the figure is as many as 1 in 5. Around 8,800 children live in poverty in Havering (around 1 in 5).

Appendix C shows how outer London boroughs are already “feeling the pinch” and have the highest median energy bills. The map shows Havering has the highest median energy bills in the Capital. Resident budgets will become strained if energy prices continue to climb by the time an expanded ULEZ is implemented.

Appendix D displays levels of deprivation within Havering. As the maps shows, areas with the highest levels of deprivation can be seen in the north of the borough and south west and correlate with areas of the borough which have the highest percentage of households within fuel poverty. Residents in these parts of the borough rely on their vehicle to travel because of poor north-south connectivity, and may have difficulty replacing a non-compliant vehicle.

Appendix E provides a modal share breakdown for how employers working in specific industries in the borough travel as part of their daily commute. As the table shows, the car is by far the most used form of transport across the top 3 industry types in Havering which are Human Health and Social Work, Construction and Education.

Lower Thames Crossing

The Mayor will be aware that National Highways are progressing a new river crossing project called Lower Thames Crossing. This will provide a new river connection linking the M2/A2 junction in Kent with the A13 in Thurrock via an underground tunnel under the River Thames. There will be a new link road that will connect the A13 in Thurrock with the M25 in Havering. Officers are already aware from analysis of traffic modelling for the project that there will be an increase in traffic on key strategic routes in the borough including the A127 and A13 as traffic reassigns to access the river crossing.

Officers are working with National Highways to better understand the impact this increase in traffic will have on air quality in the borough, but it is unclear from the TfL consultation proposals whether Lower Thames Crossing has been taken into account as part of the assessment work. The improvements to air quality in outer London that TfL are suggesting the expanded ULEZ will bring may reduce for the east London sub-region once Lower Thames Crossing becomes operational.

Ageing Population

Whilst the consultation goes into some detail around the anticipated impacts the expanded ULEZ will have on air quality in outer London, there is very little information on understanding what the social implications would be for Londoners.

Appendix F shows the percentage of residents aged 65 years and over across London. Its shows that the highest percentages reside in several outer London Boroughs, notably Bromley Havering, Bexley, Richmond upon Thames, Harrow, Sutton and Barnet. All of these boroughs will be subject to the expanded Ultra-Low Emission Zone should it come into force next year.

Furthermore, Appendix G shows that Havering has a higher proportion of residents aged over 65 then London as a whole.

The Council is concerned that older residents owning a non-compliant car who are unable to replace it may struggle with adapting to using another mode of transport to travel. For many elderly residents who have driven for many years, they may not feel confident with using public transport.

In addition to the challenge many residents will have using public transport after driving for so long, everyday tasks will become ever more difficult. It isn’t fair to expect elderly residents to carry four

or five bags of shopping on a bus instead of a vehicle. This sort of problem could also be faced by families who have to give up their non-compliant car and then have to do the weekly shop by bus.

For many Havering residents, travelling in their own car is a social lifeline and is the only way they can meet other people. For example the connections by public transport into Kent from Havering are very poor with residents either having to travel by bus to Thurrock and connecting onto services to travel south of the river, or taking the train into Stratford or central London in order to travel out again.

The Mayor needs to stop and think about the social implications of implementing this policy before a decision is made. Furthermore the Mayor needs to put forward proposals for what support TfL will offer vulnerable residents who will be forced to use what in many outer London areas is considered an inadequate public transport system, should the ULEZ be expanded.

Queen's Hospital

Over the years staffing numbers at Queen's have been steadily increasing with data from the latest Sustainable Travel Plan for the site (2019) showing over 4,500 full time staff working at Queen's. Patient numbers have also been increasing with inpatient and outpatient activities increasing by 33% between 2012/13 and 2018/19.

The Council works very closely with the Barking, Havering and Redbridge University Hospitals NHS Trust (BHRUT) on initiatives that encourage staff and patients to travel to work by foot, bike or public transport. Transport for London have also supported this work and there has been a doubling of bus services since the Hospital first opened.

Having said that, many staff that work at Queen's Hospital operate on shifts that make travelling on public transport very challenging. The most recent staff travel survey conducted by BHRUT found that 50% of staff travelled to work (to BHURT buildings) by car. Similarly, 35% of patients travelled to BHRUT sites by car themselves with a further 24% travelling by car as a passenger.

For many patients and staff, they have little option but to travel to Queen's Hospital by private vehicle. Whilst it is noted that some discounts and exemptions will be available for those that are eligible for the NHS Patient reimbursement scheme, many members of the public will still be required to pay a daily change if they have a non-compliant vehicle.

Queen's Hospital has a large catchment area that extends beyond the GLA boundary into Essex. For those patients and staff that travel longer distances (21% of staff surveyed live between 10 and 20 miles of their workplace with a further 16% over 20 miles away), they will have little option but to travel by private vehicle, particularly staff members working shift patterns.

It should also be noted that the BHRUT covers King George Hospital in the London Borough of Redbridge and many staff and patients will also travel between both hospitals whether that be for work purposes or outpatient appointments.

School Travel Impacts

A significant number of pupils who go to school in Havering travel from outside of the GLA boundary and an expanded ULEZ will have an impact on parents of pupils living outside of Havering.

The table below shows the geographical distribution of pupils at Havering Local Authority and Academy run schools who reside outside of the GLA boundary. The majority travel in from parts of Essex such as Thurrock and Brentwood.

Pupil County	Pupil Local Authority	Number of pupils	Mean distance (miles)
	Thurrock	584	4.98
	Brentwood	292	5.04
	Basildon	122	9.63
	Epping Forest	14	9.86
	Chelmsford	23	16.43
	Southend-on-Sea	23	19.88
	Braintree	9	26.79
	Castle Point	8	16.90
	Rochford	5	18.43
	Harlow	3	12.33
	Uttlesford	3	20.60
	Essex Total	**1086**	**6.50**
Hertfordshire	East Hertfordshire	1	21.03
	Stevenage	1	30.47
	Hertfordshire Total	**2**	**25.75**
Kent	Dartford	1	9.76
	Gravesham	1	11.29
	Total Kent	**2**	**10.53**
Suffolk	Babergh District	**2**	**37.85**
Buckinghamshire	Buckinghamshire	**1**	**38.29**
Total		**1093**	**6.63**

A total of 1,093 pupils live outside of the GLA boundary but go to schools in Havering with a *mean* distance to school of 6.63 miles, so in many instances may need to travel by car. Out of these, 100 pupils have free school meals. A daily charge of £12.50 (over £60 per week) for those parents simply to drop their children off at school is unacceptable and for many people this simply won't be affordable.

ULEZ Implementation Date

The intention to deliver the expanded ULEZ by 29th August 2023 does not give residents or businesses sufficient time to comply with the new measures. In addition, the ULEZ should not be expanded without a clear programme for investing in public transport infrastructure in outer London.

The Mayor should consider delaying the implementation of the scheme to give residents and businesses sufficient time to adapt and so a programme of investing in new public transport provision can begin. If the Mayor is unwilling to delay the implementation, the Council would strongly urge the Mayor to extend the exemption and discount scheme to cover other vehicle types to reduce the burden for residents, parents, and businesses whilst they are adjusting to the new requirements.

Making changes to Auto-pay for the Congestion Charge, ULEZ and Low Emission Zone (LEZ)

Havering welcomes the proposal to remove the £10 per vehicle fee for registering on Auto Pay. At a time when many Londoners are struggling to make ends meet with the cost of living crisis and rising inflation, they should not be financially penalised for simply registering to pay these daily charges. The scrapping of the registration fee should be implemented as soon as is practicable.

Making changes to the Penalty Charge Notice level

It is not considered appropriate to increase the level of penalty charge for non-payment by a further £20 to £180. If the ULEZ was to be expanded any revenue generated by PCN fines in outer London should be reinvested in the transport network in outer London.

Changes to the Mayor's Transport Strategy

Should the Mayor decide to implement expanding the ULEZ it is recognised that this policy change will need to be reflected in the Mayor's Transport Strategy. Havering would like to see the revised policy wording for Policy 24 contain a clear commitment to reinvesting revenue from the scheme in outer London transport infrastructure.

Road User Charging

It is noted that TfL are considering options for a single road user charging scheme for London. Whilst simplifying the road user charging mechanism for Londoners would be welcome, it is imperative that TfL first invest in public transport infrastructure across London before developing any detailed proposals for a single Road User Charging scheme.

Earlier this year, The Mayor set out his approach to delivering Net Zero in the document *London Net Zero 2030: An updated pathway, GLA, 2022.* The approach includes a target of reducing the number of vehicle kilometres travelled by 27% by the year 2030. The same report highlighted policies and proposals that would need to be considered to support working towards this target including the *reallocation of public, shared and active travel infrastructure to be accelerated by 10 years*, and *for a significant improvement in public transport offering by 2030*. The Council would strongly argue that neither of these measures are being delivered by the Mayor at the moment.

The consultation suggests that a road user charging regime could be in place as early as 2030. This gives an 8 year period in which to invest in new public transport infrastructure and implement some of the policy suggestions set out in the London Net Zero report.

Thank you for consulting LB Havering on the proposed expansion of the ULEZ. Havering would like to be kept informed as these proposals develop further.

Yours Faithfully,

Barry Francis
Director of Neighbourhoods

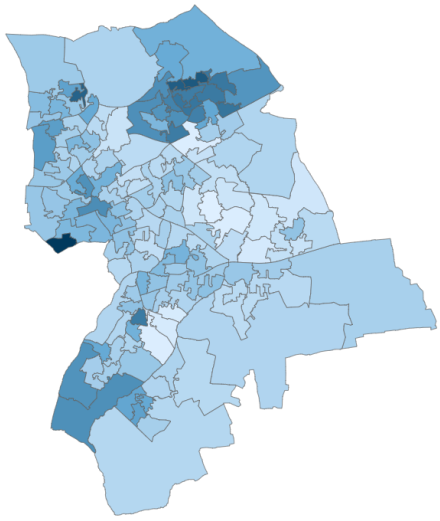
Appendix A: Borough breakdown – Emission Concentrations

Local Authority	Inner or Outer London	Anthropogenic $PM_{2.5}$ 2019 (without cut-off)	NO_2 2019 (without cut-off)	$PM_{2.5}$ 2019 (with cut off)	NO_2 2019 (with cut-off)
City of London	Inner	12.6	37.2	5.9	32.2
Westminster	Inner	12.2	35.5	5.5	30.5
Camden	Inner	12	34	5.2	29
Kensington and Chelsea	Inner	11.9	34.6	5.1	29.6
Islington	Inner	11.7	32.8	5	27.8
Tower Hamlets	Inner	11.6	33.4	4.9	28.4
Hammersmith and Fulham	Inner	11.5	31.9	4.7	26.9
Hackney	Inner	11.5	31.4	4.8	26.5
Southwark	Inner	11.5	32.1	4.8	27.1
Lambeth	Inner	11.3	30.7	4.6	25.7
Haringey	Outer	11.1	29.5	4.3	24.6
Brent	Outer	11.1	30.1	4.3	25.1
Wandsworth	Inner	11.1	29.8	4.4	24.8
Newham	Outer	11	29.3	4.4	24.4
Waltham Forest	Outer	11	28.6	4.2	23.6
Lewisham	Inner	10.9	28.2	4.2	23.3
Ealing	Outer	10.8	29.1	4.1	24.1
Barnet	Outer	10.8	28.5	4	23.5
Greenwich	Inner	10.7	27.8	4.1	22.9
Redbridge	Outer	10.7	27.7	3.9	22.7
Merton	Outer	10.7	27.6	4.1	22.6
Hounslow	Outer	10.6	28.8	3.9	23.8
Enfield	Outer	10.6	26.7	3.9	21.8
Richmond upon Thames	Outer	10.6	27.1	3.8	22.1
Kingston Upon Thames	Outer	10.5	26.7	3.7	21.7
Barking and Dagenham	Outer	10.5	26.5	3.9	21.5
Sutton	Outer	10.5	25.3	3.7	20.3
Harrow	Outer	10.4	25.8	3.7	20.9
Croydon	Outer	10.4	25.5	3.7	20.5
Hillingdon	Outer	10.3	26.3	3.5	21.3
Bexley	Outer	10.3	24.7	3.6	19.7
Bromley	Outer	10.1	23.6	3.3	18.6
Havering	Outer	10	23	3.2	18

Source: *London Health Burden of Current Air Pollution and Future Health Benefits of Mayoral Air Quality Policies* report by Imperial College London

Appendix B – Fuel Poverty Map

% households in fuel poverty by LSOA

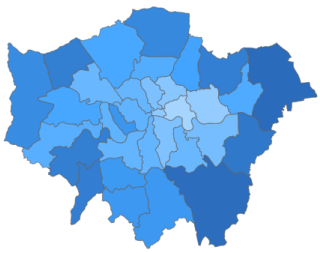


Reporting Year 2020
Fuel poverty sub-regional statistics - GOV.UK (www.gov.uk)

Ward Name	Number of households	Number of households in fuel poverty	Proportion of households in fuel poverty by ward(%)
Gooshays			
Havering 001B	682	129	18.9
Havering 004A	683	127	18.6
Havering 002D	644	109	16.9
Havering 004C	825	139	16.8
Havering 002B	684	114	16.7
Havering 002C	816	135	16.5
Havering 004B	729	119	16.3
Havering 002A	658	96	14.6
Havering 001A	756	93	12.3
Heaton	**5,712**	**834**	**14.6**
Brooklands	**6,561**	**812**	**12.5**
Havering Park	**5,528**	**666**	**11.9**
South Hornchurch	**5,868**	**654**	**10.9**
Mawneys	**5,693**	**592**	**10.3**
Rainham and Wennington	**5,378**	**548**	**10.1**
Romford Town	**7,732**	**795**	**9.9**
St Andrew's	**6,135**	**607**	**9.8**
Elm Park	**5,529**	**534**	**9.4**
Harold Wood	**5,926**	**553**	**9.4**
Hacton	**5,361**	**482**	**8.9**
Squirrel's Heath	**6,015**	**534**	**8.7**
Pettits	**5,501**	**468**	**8.5**
Hylands	**5,386**	**448**	**8.3**
Upminster	**5,496**	**453**	**8.2**
Cranham	**5,591**	**396**	**7.0**
Emerson Park	**4,935**	**341**	**6.9**

Appendix C – Estimate median energy bill

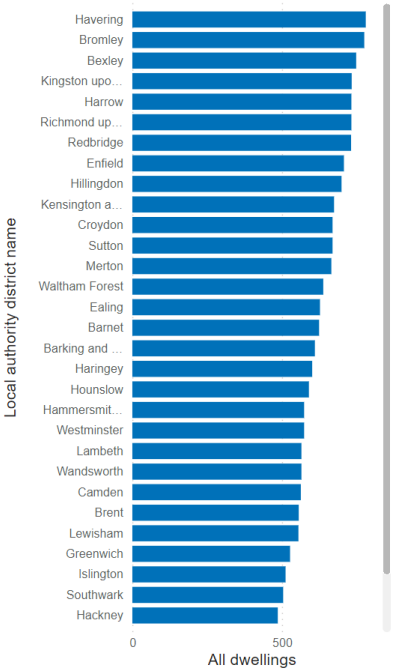
Estimated median energy bill / £year



Select or drag fields to populate this visual

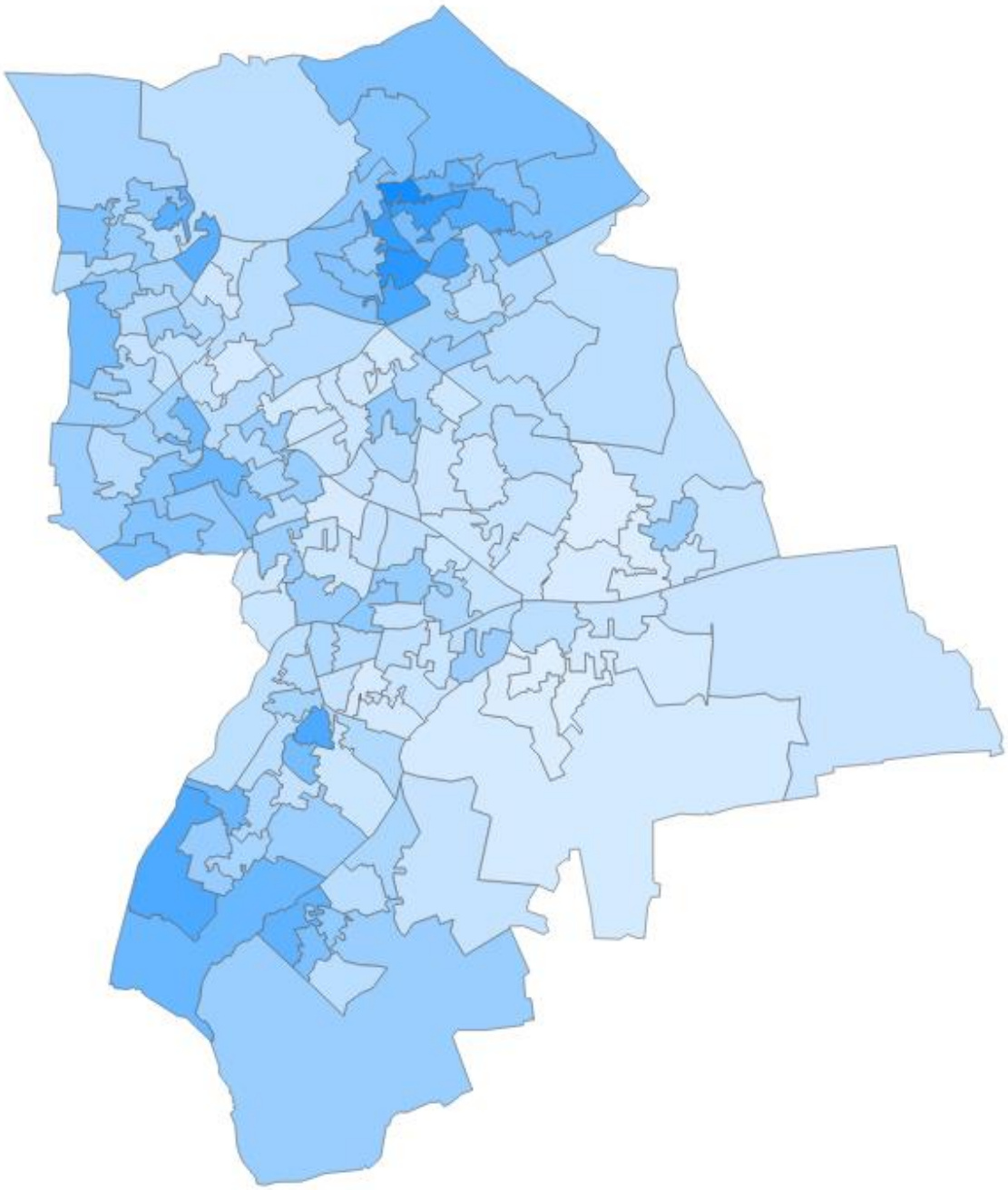
Local authority district name	Estimated energy bill £/year, all dwellings	Estimate energy bill £/year, Owner-occupied	Estimated energy bill £/year, Private rented	Estimated energy bill £/year, social rented
Havering	780	938	706	589
Bromley	775	940	665	542
Bexley	748	893	676	618
Kingston upon Thames	733	902	668	582
Harrow	732	946	706	572
Richmond upon Thames	732	887	683	503
Redbridge	731	924	655	574
Enfield	707	877	677	611
Hillingdon	699	868	684	584
Kensington and Chelsea	674	848	654	545
Croydon	669	895	667	575
Sutton	669	814	620	537
Merton	665	821	647	613
Waltham Forest	638	841	668	565
Ealing	627	818	662	560
Barnet	624	881	638	589
Barking and Dagenham	610	755	643	602
Haringey	601	810	641	556
Hounslow	590	748	611	559
Hammersmith and Fulham	574	758	616	546
Westminster	574	677	597	497
Lambeth	565	682	611	583
Wandsworth	565	691	620	531
Camden	563	708	597	554
Brent	556	827	649	545
Lewisham	555	732	595	552
Greenwich	527	733	600	546
Islington	512	626	537	561
Southwark	504	588	547	557
Hackney	486	581	546	548
City of London	474	511	540	504
Newham	458	688	601	535
Tower Hamlets	423	504	490	541

All dwellings by Local authority district name



Appendix D – Levels of Deprivation across Havering

IMD Income Score 2019 - darker colour indicates greater deprivation



Appendix E – Commuting Transport Methods

Top 3 occupation types across London:

1) Professional, Scientific and Technical
2) Human Health & Social Work Activity
3) Education

Method of travel to work - London Average	Professional, scientific and technical activities	Construction	Human health and social work activities	Education
All other methods of travel to work	1.91%	1.87%	1.14%	1.11%
Bicycle	5.17%	1.83%	3.32%	4.40%
Bus; minibus or coach	6.89%	6.33%	18.20%	11.37%
Driving a car or van	12.43%	42.18%	32.02%	35.83%
Mainly work at or from home	12.75%	10.96%	7.15%	6.39%
On foot	5.92%	2.29%	9.16%	14.36%
Passenger in car or van	0.69%	3.77%	1.52%	1.98%
Train, underground, metro, light rail, tram	54.25%	30.77%	27.50%	24.55%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Top 3 occupation types in Havering

1) Human Health & Social Work Activity
2) Construction
3) Eductation

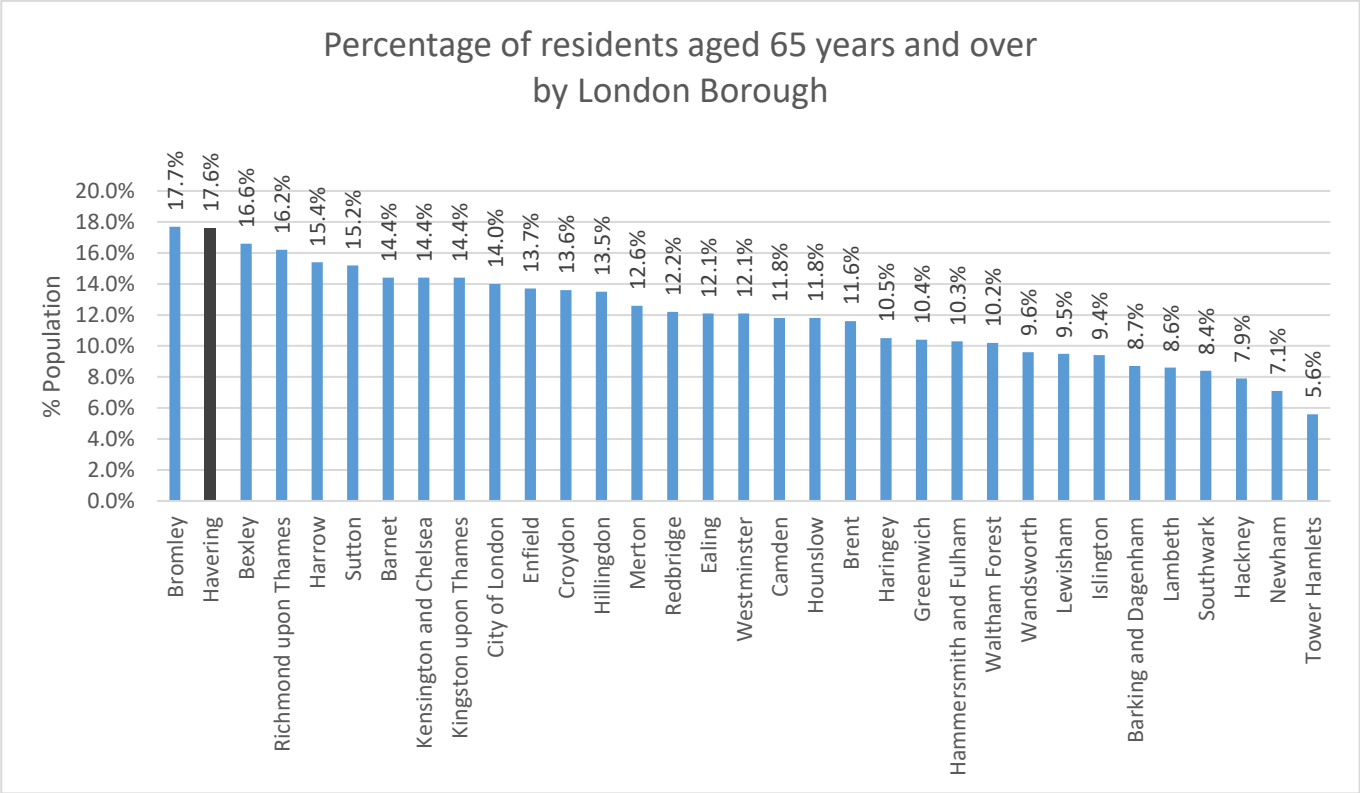
Method of travel to work - Havering Average	Professional, scientific and technical activities	Construction	Human health and social work activities	Education
All other methods of travel to work	1.10%	1.79%	0.75%	0.71%
Bicycle	0.44%	0.44%	1.01%	1.15%
Bus; minibus or coach	7.31%	2.20%	16.00%	6.11%
Driving a car or van	45.65%	58.35%	55.45%	63.30%
Mainly work at or from home	25.09%	13.27%	5.95%	5.36%
On foot	5.45%	1.16%	8.80%	14.90%
Passenger in car or van	2.84%	5.69%	3.33%	2.79%
Train, underground, metro, light rail, tram	12.12%	17.09%	8.72%	5.69%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Commuting Transport Methods: Havering vs. London

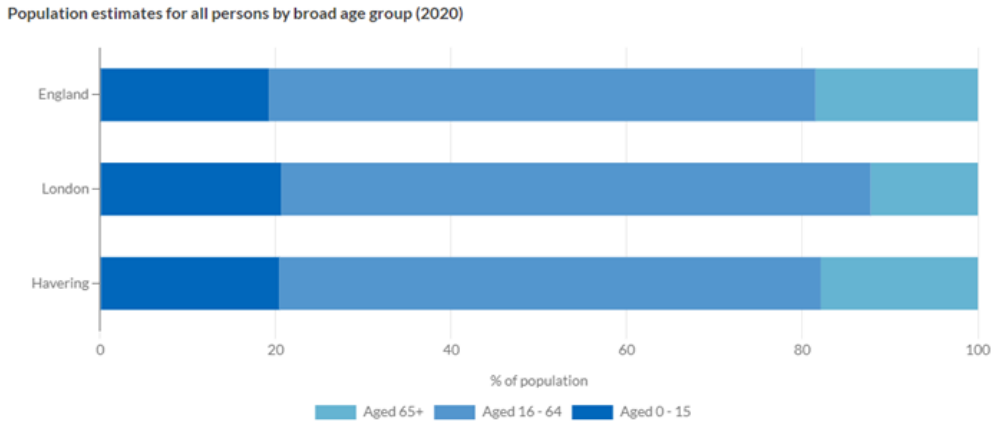
The tables above show that Havering shares two of its top three occupation types with the rest of London: Human Health and Social Work activity and Education. The notable difference is Construction which is the second highest occupation in Havering yet the sixth highest across London.

A comparison of methods of transport demonstrates that Havering commuters are far more likely to drive or be a passenger in a car or van for all of its top three occupation types than the London Average. For example, the London average for commuting in the construction trade by car or van (drive or passenger) is just under 46%, however in Havering is is 64%. Likewise, the London average for commuting in the Human Health and Social Work field by car or van (drive or passenger) is just under 34%, and in Havering it is just under 59%. In the Education sector, these figures are roughly 38% in London and 66% in Havering.

Appendix F – Percentage of residents aged 65 years and over by London Borough



Appendix G – Population Estimates by age group



Source: ONS

	Havering	London	England
Persons age group 0 - 15	53,208	1,853,207	10,852,240
Persons age group 0 - 15 %	20.4	20.6	19.2
Persons age group 16 - 64	160,925	6,050,828	35,233,879
Persons age group 16 - 64 %	61.7	67.2	62.3
Persons age group 65+	46,518	1,098,453	10,464,019
Persons age group 65+ %	17.9	12.2	18.5

Date: 2020 Source: ONS