LONDON BOROUGH OF HAMMERSMITH & FULHAM

Report to: Cabinet

Date: 07/10/2024

Subject: Net Zero 2030 Parking Strategy

Report of: Councillor Sharon Holder, Cabinet Member for Public Realm and Councillor Wesley Harcourt, Cabinet Member for Climate Change and Ecology

Report author: Mark Fanneran, Assistant Director, Parking Services

Responsible Director: Bram Kainth, Executive Director for Place

---

SUMMARY

This report recommends policy changes that help tackle dangerous levels of air pollution in Hammersmith & Fulham and help deliver the Council's Net Zero 2030 target. The cost of parking plays a significant role deciding whether somebody owns a car, what car to own and how frequently it is driven. This report sets out how to use parking charges to influence driver behaviour to meet the ambition.

Hammersmith & Fulham is the 10th worst area in England for deaths by air pollution - with 7.4 per cent of deaths linked to toxic air. H&F is committed to reducing the exposure of people to poor air quality. The council's new Air Quality Action Plan 2024-2029 identifies the Council's priorities for tackling air quality and vehicle emissions that have a direct relationship to local air quality and carbon reduction. Road pollution is the biggest cause of dangerous Nitrogen Oxide (NOx) gases in the borough.

Car ownership of vehicles with poor green credentials remain active in the borough even after the introduction of London-wide policies. It is recognised in the industry that the higher the tariffs, the better the shift in behaviour change. Pitching the banding in the right place is essential to meet our targets by 2030 and encourage local journeys to be made using active travel.

The parking spaces themselves are worth around £4300 per annum as real estate and this kerbside space is seeing increase demand from other uses such as cycle storage, flood defences, greening and café areas. This report makes recommendations which will reduce the demand of cars on this precious borough asset, enabling the space to be used for these emerging needs.

Vehicle emissions reductions have come a long way in recent years and the proposal recognises those drivers that have made the switch to cleaner cars already. The proposal is to introduce a banding system across the different parking permit types, based on DVLA CO2 emissions, similar to that we have previously, and successfully, used with Pay & Display charges. Trials with Pay & Display showed that the banding was too narrow, which reduced its effectiveness in driver behaviour change and is penalising drivers that have made the switch.

The changes set out in this report will harmonise all parking charges to a seven-band system which is commonly used across London. This will include residents' permits, business permits, residents' visitor parking permits, business visitor parking permits, visitor parking and Pay & Display tariffs.

This proposal will lead to changes in vehicle usage, ownership and behaviour, and to an increase in the use of greener transport alternatives, such as cycling and walking within the borough.

RECOMMENDATIONS

1. To welcome the parking strategy ambition to tackle the dangerous levels of air pollution in Hammersmith & Fulham and support meeting the Council's Net Zero 2030 targets.

2. To review the policy change options and agree with the proposals set out in this report

3. To delegate the implementation of those changes to the Executive Director of Place, in consultation with the Cabinet Member for Public Realm.

4. To delegate the decision to the Executive Director of Place, in consultation with the Cabinet Member for Public Realm, to review an annual increase in parking fees and charges.

Wards Affected: All

Our Values	**Summary of how this report aligns to the H&F Values**
Building shared prosperity	Builds a safer, healthier and more attractive borough to live and work in by reducing carbon emissions and improving air quality.
Creating a compassionate council	The improvement on the quality of air will have a long-term impact on the health and wellbeing of our residents.
Doing things with local residents, not to them	Actions around climate emergency have been co-produced with residents.

Being ruthlessly financially efficient	Utilises new technology to reduce the cost, or be cost neutral, in delivering a carbon zero borough.
Taking pride in H&F	Improved air quality will make the borough a better place to live and visit
Rising to the challenge of the climate and ecological emergency	New model supports the Council's objectives to reduce carbon emissions and improve air quality

Financial Impact

It is expected that the proposed parking permit model, and changes to the existing Pay & Display emissions-based charging model, will lead to behavioural change. This makes it difficult to quantify any financial impact. The revenue and capital implications of adopting these policy changes will continue to be modelled in detail as real data becomes available.

If there are additional surpluses from emissions-based charging, any surpluses will be used to contribute towards allowable activities under section 55 of the Road Traffic Act 1988. More specifically, when setting these new charges, the focus will be on how the charges will contribute to delivering the Council's traffic and parking policies and programmes, together with supporting key objectives driving our climate change agenda.

The impact of the proposed policies will be affected by wider regional and local transport policies on vehicle emissions. Any change in parking income and expenditure will be accounted for through the Controlled Parking Account.

Gary Hannaway, Head of Parking Finance, 20 June 2024

Verified by James Newman, 24 June 2024

Legal Implications

The Council has the power to levy these charges and vary them under the Road Traffic Regulation Act 1984 and the Traffic Management Act 2004.
Under s122 of the 1984 Act, the Council when exercising its powers to implement and vary parking charges needs to take account of the following factors:

(a) The desirability of securing and maintaining reasonable access to premises;

(b) The effect on the amenities of any locally affected and (without prejudice to the generality of this paragraph) the importance of regulating and restricting the use of roads by heavy commercial vehicles, so as to preserve or improve the amenities of the areas through which the roads run;

(bb) The strategy prepared under Section 80 of the Environment Act 1995 (national air quality strategy);

(c) The importance of facilitating the passage of public service vehicles and of securing the safety and convenience of persons using or desiring to use such vehicles; and

(d) Any other matters appearing to the local authority to be relevant.

The Council is therefore under a statutory duty to take into account air quality when deciding what parking charges it should levy.
The proposal also contributes to the achievement of the Council's Air Quality Action Plan 2024-2029.
The report recommends that non-statutory consultation should take place about the proposals and that the outcome of this consultation should be taken into account before any changes are implemented.

The requirements on public bodies when undertaking consultation are as follows:

- The consultation should be undertaken at a formative stage
- It should be accompanied by enough information to allow for an informed response
- Sufficient time should be allowed for response
- The outcome of the consultation should be conscientiously taken into account by the decision-maker

The above rules must be followed in relation to the consultation. Any variation to the charges following the consultation can then be implemented by way of notice under s46A of the Road Traffic Regulation Act 1984.

John Sharland, Assistant Director, Legal Services, 25 June 2024

DETAILED ANALYSIS

Proposals and Analysis of Options

1. Background

1.1 Hammersmith & Fulham is the 10th worst area in England for deaths by air pollution - with 7.4 per cent of deaths linked to toxic air, according to the Office for Health Improvement & Disparities. H&F is committed to reducing the exposure of people to poor air quality. The council's new Air Quality Action Plan 2024-2029 identifies the Council's priorities for tackling air quality and vehicle emissions that have a direct relation to local air quality and carbon reduction. Road pollution is the biggest cause of dangerous Nitrogen Oxide (NOx) gases in the borough.

1.2 Charges levied according to vehicle type can lead to a reduction in higher-emitting vehicles. Emission-based parking permit charging is a well proven method of ensuring vehicle ownership change. The DVLA has noted a significant shift in vehicle ownership and fuels type since the introduction of emission-based schemes.

1.3 It is now commonplace for London boroughs (and UK local authorities) to follow the lead by the DVLA and apply higher parking permit charges for more polluting vehicles (CO2) and those that emit high levels of particulate matter (PM), and Nitrogen Oxides (NOx), supporting both borough and London-wide policies and strategies to address poor air quality.

1.4 Emissions-based parking charges conform to the 'polluter pays' principle. There is a clear logic across London for a higher premium to be charged for vehicles that produce higher carbon and air pollutant emissions.

1.5 The current resident parking permit charges in Hammersmith and Fulham have remained the same since 2012, with no increase in line with inflation during that period. The Council has increased most fees and charges during this time and so the cost of the residents' and other permits relative to other services the Council charges for has gone down in real terms over this period. Residents' parking permits in H&F currently cost £119 for the first permit and £491 for the second, per individual. **Table 1 of appendix 2** shows the current resident permit charges.

1.6 From January 2025, the Council is looking to introduce a new payment model for residents, allowing payment to be made either for a 12-month permit, six-month or rolling monthly permit. There are many benefits of a rolling monthly permit (set up as a monthly subscription payment) including removing the need to reapply for permits every six or 12 months and removing the risk of forgetting when a resident permit is up for renewal. A significant financial benefit is that residents do not have to pay for their permit upfront, providing greater financial flexibility and easing some of the financial burden of paying a lump sum. The resident permit cost proposal in **appendix 1** shows what the monthly payment could be.

1.7 The Council introduced emissions-based tariffs for visitor parking in 2021 and subsequently amended those tariffs in 2023. The current bands are as follows:

Band 1 (0-75g/km CO2) - £2.50 per hour
Band 2 (76-130g/km CO2) - £3.50 per hour
Band 3 (131-190g/km CO2) - £4.25 per hour
Band 4 (191+g/km CO2) - £5 per hour

**A diesel surcharge of £1 per hour will be applied to diesel vehicles in any of the above bands due to the negative impact of diesel vehicles on air quality.*

1.8 The introduction of emissions-based tariffs has contributed to behavioural change, with a 4% decrease in diesel vehicles from 2022 to current day. During that same period, electric and hybrid vehicle visitor usage has increased by approximately 5%.

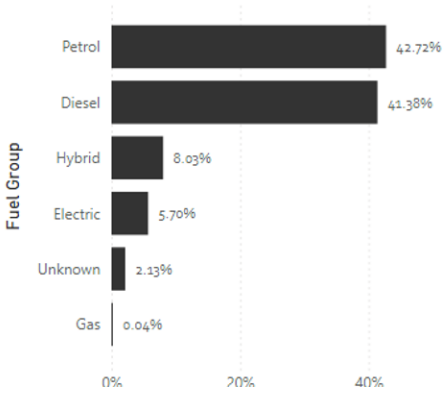


Fig 3: RingGo visitor usage by Fuel group - 2022

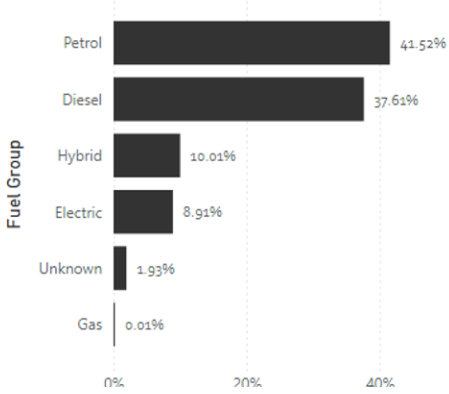


Fig 4: RingGo visitor usage by Fuel group - 2024

1.9 The London Borough of Hammersmith and Fulham has a parking infrastructure which encourages drivers to visit the borough. H&F is home to more than 25 shopper parking bays across the borough, which support local businesses and provide residents and visitors with access to short-term parking for as little as 20p per hour. The shopper bays are located near key shopping areas, making it easier to park and shop local. In addition, the Council has also introduced different parking permits to support resident visitors, businesses and their customers and tradespeople. All of these permits are well used and ensures there are a variety of parking tools for drivers to utilise.

2. Proposal Analysis

Residents Permits and Business Permits

2.1 The parking permit proposals would see the cheapest tiers applying to the least polluting vehicles and the more expensive to the more polluting. The proposed model would attempt to place most vehicles within the middle

bandings. In addition, having seven bands would incentivise residents and businesses to make incremental steps towards lesser pollutant vehicles, rather than expecting a wholesale move from diesel/petrol to fully electric. Incremental changes will still play a role in improving air quality and reducing emissions.

2.2 Diesel vehicles will carry an additional fuel type surcharge of 50% as diesel contributes to significant particulate emissions of PM1, PM2.5 and PM10s.

2.3 To further reduce car ownership per household, second vehicle permits will be charged at a multiplier of the emissions band of the vehicle, with the highest emitter of the two vehicles being the second vehicle. Second vehicle ownership creates higher parking stress, occupying valuable space and creates an issue where one or both resident vehicles are parked. The higher price point for second permits will give residents the opportunity to re-consider whether a second vehicle is absolutely necessary and may also dissuade other residents who are considering purchasing a second vehicle.

2.4 Based on the current resident permit data, it is calculated that approximately 17.31% of current resident permit holders with a first permit would have to pay the diesel surcharge. 24% of residents who hold a second permit will have to pay the diesel surcharge – a complete breakdown can be found in **Table 3 of appendix 2**. It should be noted that diesel surcharges are commonplace as part of other borough's emissions-based charging model.

2.5 There are currently 2472 residents with disabled blue badges. These badge holders will not be impacted by changes to parking permits, as they are able to park free of charge in any resident, pay and display or shared use bay in the borough. **Table 2 of appendix 2** demonstrates the borough trend in resident disabled badge holders since 2022.

2.6 To date the Council has exempted electric vehicles (EVs) from permit charges for both resident and business vehicles, to encourage early adoption while they were in their infancy. However, they still have a negative impact on public health and it is notable that electric vehicles continue to produce considerable amounts of air pollution emissions, from brake wear and tyre wear. It should also be noted they are no different from other vehicles in the space they take up on the public carriageway. They also contribute to general congestion increasing the amount of idling time conventional vehicles spend on their journeys.

2.7 Under the proposed update, EVs will continue to benefit from reduced charges relative to other vehicles but will be charged based on their space occupation and air quality impact.

2.8 In March 2024, a key decision was made to introduce parking resident permits for motorcycles. Motorcycles will be charged 30% less than a car, however the charge will be based on the same emissions criteria.

2.9 Changes to the business permit model will lead to behavioural change, further incentivised by a policy change which allows businesses to have up to five

parking permits if their vehicles fall into bands 1-3. Only two permits will be issued if their vehicles are in band 4-7.

2.10 Although residents or businesses are unlikely to change their vehicle overnight as a direct result of these proposals, parking charges may form part of the financial considerations when replacing their vehicles.

2.11 To meet our air quality aspirations, the number of high pollutant vehicles visiting and parking in the borough will need to reduce significantly in the coming years. The new proposed bandings could play a sizeable role in enforcing further behavioural change, by ensuring that the vehicles with higher emissions pay a larger sum to park in the borough.

Resident Visitor Permit and Business Visitor Permit

2.12 Currently the bandings for Resident Visitor and Business Visitor permit tariffs are set at a flat fee of £1.80 per hour. In the new proposals, seven bands will be introduced to mirror the other models. Both visitor permit types would still be cheaper than the on-street Pay & Display tariffs, however those higher emitting vehicles would pay more compared to other bandings.

Key Worker Permits

2.13 We will not introduce emissions-based bands for key workers at this stage, instead introducing an inflation-linked increase, which has not been done since the permit was introduced in 2020. The permit type will come under further review at a later stage.

Visitor Parking

2.14 There is an opportunity to mirror the proposals for parking permit emissions bands for pay and display, moving from four bands to seven bands. This will ensure there is uniformity in charges between service types, in particular for residents who have a resident parking permit and also visit and park in other parts of the borough.

2.15 The new pay and display bands will reward those drivers who make incremental behavioural changes, where they are able to make the leap from higher pollutant vehicles to more environmentally friendly alternatives.

2.16 The proposals for visitor parking will also put us at similar charging levels to those boroughs around us. For example, visitors to Westminster pay up to £13.86 per hour in some zones, based on a high pollutant vehicle with emissions over 256/km CO2m. A full breakdown of pay and display tariffs in other boroughs can be found in **table 4 of appendix 2.**

3. Reasons for Decision

3.1 Hammersmith & Fulham is the 10th worst area in England for deaths by air pollution - with 7.4 per cent of deaths linked to toxic air. As greenhouse gases and air pollutants in the borough are significantly produced through traffic-

related activity, implementing the proposals set out in this report will significantly help to deliver the council's Climate Change and Air Quality objectives by reducing traffic and incentivising residents making greener vehicular decisions. SUVs consume around 20% more oil than a typical medium-size car[1]. The new model proposed will help people avoid larger, more polluting vehicles through financial disincentive.

3.2 The parking permit model has been tried and tested in a number of London Boroughs and in other parts of the country for over 10 years. Those councils have seen significant reduction in high emitting vehicles and this trend is expected to be seen in H&F as well. The policy supports the Mayor of London's strategy and the policies the government has introduced through the DVLA, which helps to increase the effectiveness in achieving the outcomes.

3.3 Amendments to the visitor parking tariffs will play a role in improving air quality and creating significant behavioural change in those visiting the borough. Changes would also keep us in line with other Local Authorities who have similar levels of parking and traffic.

Equality Implications

There are particular benefits to such parking schemes, in particular for children who are more vulnerable to the effects of air pollution as their lungs are still developing.

The biggest adverse impact across all protected characteristics is an increase in cost, as those that own more polluting vehicles will potentially pay more. This has the potential to have a negative financial impact on some individuals with lower incomes because they have to pay higher charges for parking and are likely to be less able to replace their vehicle with a less polluting vehicle.

It is important therefore that the Council introduces measures to offset those risks – for example, the proposal to create a rolling parking permit where a resident pays a monthly on-going charge instead of paying 12 months upfront, could provide more financial flexibility.

In addition, the Council should promote low-cost active travel schemes including residential secure cycle parking, car clubs and dial-a-ride.

Comments verified by Yvonne Okiyo, Strategic Lead for Equity Diversity and Inclusion
25 June 2024

Risk Management Implications

There is a financial risk of avoidance of payment of charges by residents. It is recommended that a strategy is developed to combat this and ensure payment.

[1] As their sales continue to rise, SUVs' global CO2 emissions are nearing 1 billion tonnes – Analysis - IEA

There is a programme risk that the benefits of this initiative are not adequately tracked and that resultant challenges to the gains to LBH&F cannot latterly be substantiated, It is therefore recommended that a full programme plan is developed including carefully defined risks, and benefits.

Jules Binney, Risk and Assurance Manager, 25 June 2024

Climate and Ecological Emergency Implications

Hammersmith & Fulham declared a Climate emergency in 2019 and pledged to reduce council emissions of carbon dioxide to net zero by 2030.

The council has committed to improving air quality and protecting human health and has set an ambitious target to meet 2021 World Health Organisation Air Quality Guidelines by 2030.

As greenhouse gases and air pollutants in the borough are significantly produced through traffic-related activity, the proposals will help deliver the council's Climate Change and Air Quality objectives.

The parking permit model has been tried and tested in a number of London Boroughs
and brought significant reductions in high emitting vehicles and this trend is expected to be seen in H&F as well.

It will do so by reducing traffic and financially incentivising residents to make greener vehicular decisions. SUVs consume around 20% more oil than a typical medium-size car[2]. The new model proposed will encourage people to avoid larger and more polluting vehicles.

This could be reinforced with continued support to shift to other active travel modes, such as cycling and walking, and measures to encourage carpooling and car sharing.

Amendments to the visitor parking tariffs will play a role in improving air quality and creating significant behavioural change in those visiting the borough.

The policy supports the Mayor of London's climate strategy and measures the UK government has introduced through the DVLA.

Mark Thomlinson, Climate Engagement Lead, 5 June 2024

Procurement implications

All initiatives above will be introduced via existing suppliers and systems.

[2] As their sales continue to rise, SUVs' global CO2 emissions are nearing 1 billion tonnes – Analysis - IEA

Consultation

Any proposals would be subject to the notice provisions under the Road Traffic Regulation Act 1984.

In 2023, the Council launched a borough-wide parking census, designed to get feedback from residents and business on issues around parking. One of the questions in the parking census asked the views on the following statement:

Parking Charges should be used to reduce the number of higher polluting vehicles in the borough.

From a total of 6895 respondents:

- **49.18%** strongly agreed/agreed that parking charges should be used to reduce the number of higher polluting vehicles in the borough
- **15.45%** of those responders neither agreed or disagreed with the statement
- **35.38%** strongly disagreed/disagreed that parking charges should be used to reduce the number of higher polluting vehicles in the borough

A breakdown of responses can be found in Appendix 2 of this report.

List of Appendices

Appendix 1 – Emissions-based charging proposals
Appendix 2 - Parking data tables
Appendix 3 – Parking Census data
Appendix 4 – Air Quality information

Appendix 1 – Emissions Based Charging Proposals

Resident Parking Permits

Band	CO2 emissions	Current Resident Permit Costs	Proposed Resident Annual Permit Costs	Proposed Resident Monthly Permit Costs (subscription model)
Band 1	0g/km	£0	£125	£10.42
Band 2	1-75g/km CO2	£60	£156	£13
Band 3	76-120g/km CO2	£119	£193	£16.08
Band 4	121-150g/km CO2	£119	£230	£19.17
Band 5	151- 185g/km CO2	£119	£266	£22.17
Band 6	186- 225g/km CO2	£119	£303	£25.25
Band 7	Over 225k/km CO2	£119	£340	£28.33
Motorcycles	-	£0	30% discount of banding cost	30% discount of banding cost
2nd Permit	-	£497	3x cost based on banding	3x cost based on banding

****A diesel surcharge of 50% of the permit cost will be added due to the negative impact diesel vehicles have on air quality**

Sessional Parking

Band	CO2 emissions	Current Visitor Parking Tariff (per hour)	Proposed Visitor Parking Tariff* (per hour)	Current Resident Visitor Permit/Business Visitor Permit (per hour)	Resident Visitor Permit Proposal (per hour)	Business Visitor Permit Proposal (per hour)
1	0g/km	£2.50	£2.80	£1.80	£1.80	£2.50
2	1-75g/km CO2	£2.50	£2.80	£1.80	£1.80	£2.50
3	76-120g/km CO2	£3.50	£4.00	£1.80	£1.80	£3.50
4	121-150g/km CO2	£3.50	£4.50	£1.80	£2.30	£3.50
5	151- 185g/km CO2	£4.25	£5.50	£1.80	£2.30	£4.25
6	186- 225g/km CO2	£5	£6.00	£1.80	£2.80	£5
7	Over 225k/km CO2	£5	£7.00	£1.80	£2.80	£5

***A diesel surcharge of £1 per hour will be added to the visitor parking cost**

Business Parking Permits

Band	CO2 emissions	Current	Proposed
Band 1	0g/km	0	£200
Band 2	1-75g/km CO2	£395	£395
Band 3	76-120g/km CO2	£791	£791
Band 4	121-150g/km CO2	£791	£850
Band 5	151- 185g/km CO2	£791	£950
Band 6	186- 225g/km CO2	£791	1050
Band 7	Over 225k/km CO2	£791	£1200

Business can have up to five parking permits for vehicles in bands 1-3. If business vehicles are bands 4-7, only two parking permits will be issued.

Key Worker Permits

Permit Type	Current Monthly/Yearly	Proposed Monthly/Yearly
Single Zone	£70/£791	£86/£1000
All Zones	£350/£3995	£430/£5000

Appendix 2 - Parking data tables

Table 1 - Current resident parking permit costs

First Permit

Permit Type	Cost
Standard – 6 months	£71
Standard – 12 months	£119
12 month lower emission vehicle	£60
Fully Electric	£0

*To qualify for the lower emission vehicle permit a vehicle must not produce more than 100g/km of CO2 and be Euro 5 compliant.

Second Vehicle Permit (issued to same person)

6 months	**£260**
12 months	£497

*no discount for lower emission or electric vehicles

Table 2 – Resident disabled blue badge holders – 2022 to present day

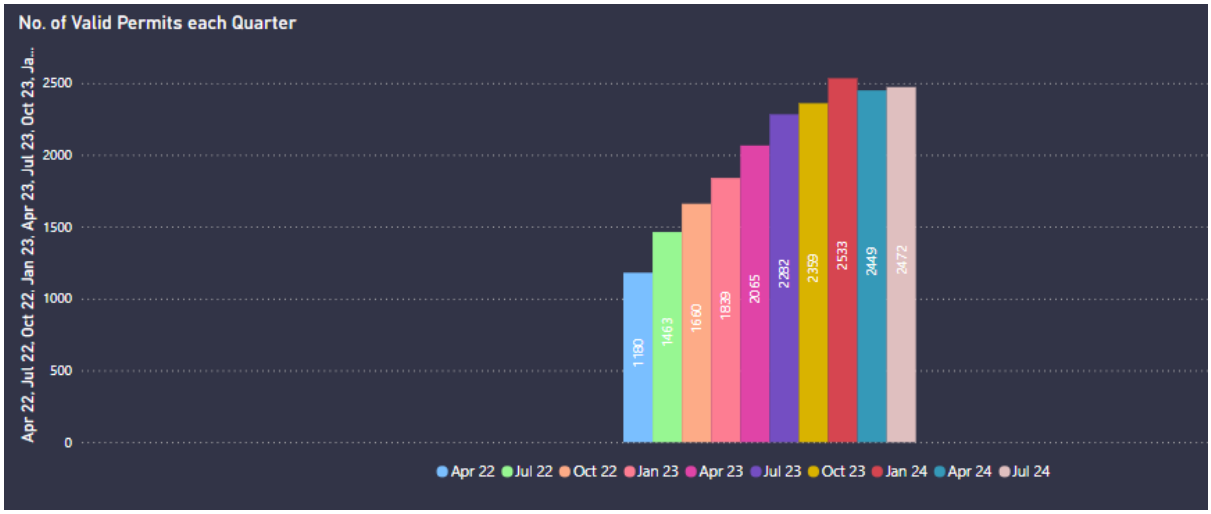


Table 3 - Current residents permit holders and how they are impacted by emissions based charging

Proposed Banding	Total Permit holders by proposed banding	Total Residents Impacted by Diesel Surcharge	% Residents Impacted by Diesel Surcharge
0g/km	2,057	-	0.00%
1-75g/km CO2	1,874	81	4.32%
76-120g/km CO2	6,948	1,317	18.96%
121-150g/km CO2	8,590	1,511	17.59%
151- 185g/km CO2	5,341	1,252	23.44%
186- 225g/km CO2	2,325	562	24.17%
Over 225k/km CO2	1,438	253	17.59%
Totals	28,573	4,976	**17.42%**

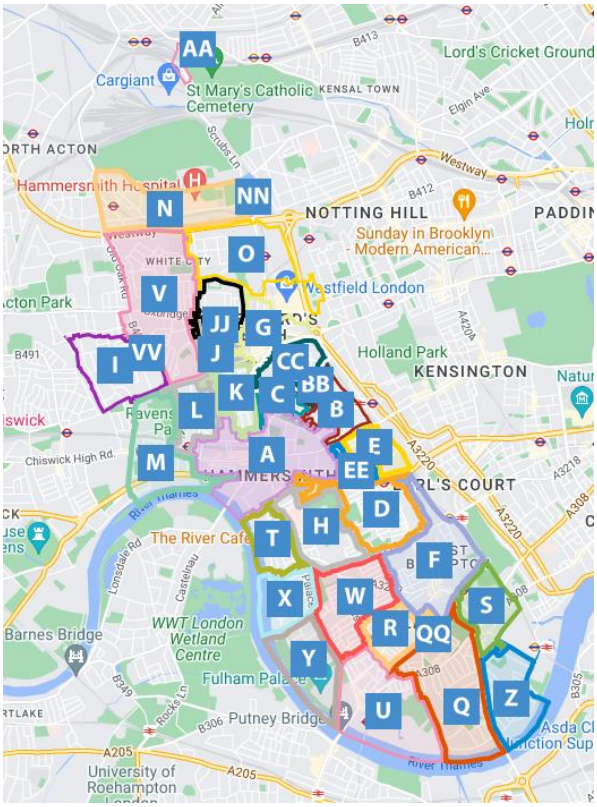
Table 4 – Emissions Based Visitor Parking – Other Borough Comparison

Borough	Emissions Based Charging (Y/N)	Lowest	Highest
Westminster	Yes	£1.46 per hour	£13.86 per hour
Camden	Yes	£2.38 per hour	£8.06 per hour
Kensington and Chelsea	Yes	£1.60 per hour	£7.40 per hour
Ealing	Yes	£0.14 per hour	£5.00 per hour
Islington	Yes	£4.10 per hour	£13.95 per hour
Hackney	Yes	£1.80 per hour	£9.30 per hour
Lambeth	Yes	£3.41 per hour	£15.31 per hour
Wandsworth	No	£1.50 per hour	£3.90 per hour

Appendix 3 – Parking Census

Parking Census - Emissions Based Responses
Parking Charges should be used to reduce the number of higher polluting vehicles in the borough

Zone	Total Responses	Strongly Agree	Somewhat Agree	Neither Agree or Disagree	Somewhat Disagree	Strongly Disagree
Zone AA	40	9	6	9	4	12
Zone BB	96	33	19	12	15	17
Zone CC	195	45	45	33	30	42
Zone EE	75	18	17	5	13	22
Zone JJ	193	60	51	28	23	31
Zone NN	31	13	7	3	4	4
Zone QQ	12	4	1	3	2	2
Zone VV	7	1	2	2	0	2
Zone A	283	87	69	37	48	42
Zone B	168	47	33	26	32	30
Zone C	99	31	17	8	16	27
Zone D	538	157	122	72	60	127
Zone F	248	73	57	44	36	38
Zone E	126	39	25	20	18	24
Zone G	135	52	27	22	18	16
Zone H	361	112	73	54	39	83
Zone I	318	85	62	43	51	77
Zone J	80	20	18	7	14	21
Zone K	229	74	50	30	33	42
Zone L	175	50	50	26	24	25
Zone M	167	56	38	22	24	27
Zone N	120	26	20	18	30	26
Zone O	116	35	20	27	20	14
Zone Q	365	98	82	69	54	62
Zone R	234	57	46	33	44	54
Zone S	151	42	34	26	20	29
Zone T	373	98	83	67	53	72
Zone U	264	65	63	43	36	57
Zone V	578	142	131	96	91	118
Zone W	414	103	98	58	77	78
Zone X	286	52	55	48	35	96
Zone Y	260	59	52	43	31	75
Zone Z	158	37	38	31	28	24
Totals:	6895	1880	1511	1065	1023	1416
	Percentage Split:	27.27%	21.91%	15.45%	14.84%	20.54%



Appendix 4

Air Quality in H&F

1.1 Air pollution has an adverse impact on health throughout people's lives. It also disproportionately impacts the young, old, and those with existing health conditions. Poor air quality in London is believed to result in around 9,000 premature deaths every year. Kings College London, the Institute for Public Policy Research (IPPR) and Greenpeace have all stated that diesel engines emit 40% of the capital's Nitrogen Dioxide (NO2) and particulate matter (PM10) emissions. The World Health Organisation also has NO2 on its list of "definite carcinogens".

1.2 Diesel engine exhaust includes soot, aerosols such as ash particulates, metallic abrasion particles, sulphates, silicates and nitrogen oxides. The black carbon element of diesel emissions has a particularly adverse effect on human health. Diesel exhaust also contains nanoparticles, which have additional health impacts, though not yet fully understood. The adverse health effects of diesel particulates are linked to cancer, heart and lung damage, and mental functioning. Exposure has also been linked with acute short-term symptoms such as headache, nausea, coughing, difficult or laboured breathing, irritation of the eyes, nose and throat and the onset of asthma in vulnerable individuals.

1.3 Diesel fuelled vehicles can emit up to four times more nitrogen oxides and up to more than twenty times more particulate matter than petrol fuelled vehicles. This has significant adverse health impacts: increasing the ambient pollution levels across the borough; increasing pollution levels for pedestrians and cyclists near roads; and also including drivers themselves, who are particularly exposed to air pollution whilst in their vehicles.

1.4 It is worth highlighting that whilst EV reduces local GHG emissions, they still have a negative impact on local air quality producing particulate matter emissions from brake dust and tyre wear. EVs like their fossil-fuelled counterparts continue to emit pollutants, with estimates ranging as low as a 3% decrease of PM2.5 particulate emissions relative to conventional vehicles, in the worst cases.

1.5 A whole-borough Air Quality Management Area (AQMA) has been declared for H&F since 2001 because of failing to meet the EU annual for Nitrogen Dioxide (NO2) and Particulate Matter (PM10). In addition, six air quality Focus Areas - locations identified by the GLA as having high levels of pollution and human exposure – have been identified in H&F identified in Figure 1.

1.6 Pollution in Hammersmith & Fulham comes from a variety of sources with the main sources of Nitrogen Oxides (NOx), including Nitrogen Dioxide (NO2), coming from road transport. One of the main sources of particulate matter is road transport such as diesel vehicles. Diesel cars contribute 4.5 times more NOx emissions in Hammersmith & Fulham than petrol cars.